

## SECTION 2. ECONOMICS AND MANAGEMENT: INNOVATIVE DEVELOPMENT OF ENTERPRISES

*Ersh E. A., Klyunya V. L.*  
**CROWDFUNDING AND CRYPTO FUNDS ARE A NEW VECTOR  
IN DEVELOPING VENTURE FINANCING MECHANISM**

*Ersh E. A., Klyunya V. L.*

### **Abstract**

The article discusses the organizational forms of venture financing, including the use of Internet technologies (crowdfunding, crypto fund and ICO). The results of the analysis of the main disadvantages and advantages of venture financing of innovations by business angels, venture funds, also through crowdfunding and ICO are presented. Provides regulatory restrictions for crowdfunding platforms used in EU countries. Identification of the main barriers to the development of collective forms of venture capital investment through crowdfunding in the Republic of Belarus and practical recommendations for its development.

Key words: venture investment; venture fund, business angel investing, crowdfunding, crowdfunding platforms, crypto fund, ICO.

### **Introduction**

Fostering innovations and building favorable conditions for doing business are important factors to enhance the country's economic potential. For the Republic of Belarus, this issue is particularly relevant due to low rates of economic growth that have persisted in recent years. The analysis of the foreign practice in creating and developing new high-tech sectors of the economy shows that the main catalyst for the innovative activity of business entities is the development of venture activity mechanism. A standalone objective in a number of priorities is creating conditions for the inflow of long-term financial resources to finance innovation. Its solution requires intensification of activities to develop both classical forms of venture investment and alternative mechanisms for financing innovations in new organizational forms for Belarus: crowdfunding and crypto fund. In domestic economic references, the mechanisms of venture investment through digital platforms and blockchain technology are a fairly new phenomenon, therefore, these mechanisms and conditions for their development have not been studied deep enough. Besides, at the moment, the Republic of Belarus does not have a completely formulated legal framework regulating the relationship between members of venture activities, including in the field of digital currencies, which entails financial and legal risks for investors. The purpose of this report is to identify barriers for developing collective forms of venture investment through crowdfunding and crypto funds, to elaborate a set of measures for their wide introduction and creating necessary infrastructure and conditions for its development.

### **Methods**

The process of organizing venture activity appears quite complicated since it involves a lot of participants interacting with each other and pursuing their own specific goals. In the course of research, the authors used positive and normative approaches to economic knowledge, deduction and induction methods, the study of cause-and-effect relationships, comparative analysis and synthesis, expert assessments. The organizational and economic mechanism of venture activity was considered as a combination of two parallel, interrelated and interdependent processes: financial and technological.

Based on the level of institutional development of venture industry and the scope of applying IT-technologies within it, the financial component of this mechanism (venture financing) was investigated in two organizational forms:

- classical financing of venture projects;
- digital (innovative) financing of venture projects.

### **Results and Discussion**

As the main criterion for attributing the venture financing mechanism to one of the proposed organizational forms, the authors used the level of relationship between the investor and venture project organizers (managers of an innovation-active enterprise).

As a rule, apart from money, venture investors contribute their experience, professional knowledge and connections to the project they invest in, and often become co-owners of a venture project. Due to the high interconnection between themselves and organizers of the venture project (managers of an innovation-active enterprise), venture investors have an opportunity to actively affect the development of the project they invest in: block transactions, appoint directors, etc. The venture financing process involving such close interaction between a venture project organizer and its investor, has been attributed by the authors to the classical form of venture financing, which includes:

- obtaining financial resources from business angels;
- obtaining financial resources from investment venture funds.

The specific features of the venture financing process through receiving investments from business angels and venture funds are shown in Tables 1.1 and 1.2, respectively.

Table 1.1 – Analysis of venture financing of innovations by business angels.

<b>Advantages</b>	<b>Disadvantages</b>
Geographical availability of financing	Most often they provide small amounts of financing, which will not be enough to expand business
Obtaining financing even at the earliest stages of development (provided there is an innovative and promising idea)	Rare financing of venture projects at later stages of the venture project development
Obtaining strategic advice on doing business, assistance in managing and establishing a business model	Loss of some control over business nu project founders, since business angels, as a rule, prefer to be involved in company managing
Flexibility in making financial decisions, broad investment horizons ("patient money")	

Source: own development based on [1 - 2].

Table 1.2 – Analysis of venture financing of innovation-active enterprises through venture capital funds

<b>Advantages</b>	<b>Disadvantages</b>
Possibility to obtain financing without need to pay interest and return capital	An expensive source of financing (if investor withdraws, it may happen that the value of the company is up several times and the share had been sold to investor some time ago very cheaply)
Obtaining intangible support in the form of investor's knowledge and experience, know-how, assistance in managing the company, business model development, providing business contacts)	A long process of establishing cooperation with the foundation (on average 6-12 months)
The investor (fund) assumes part of risks in case of failure	Financing that does not fit every startup (not a universal method)
Improving the company's reputation and increasing its attractiveness to other investors	There is a risk of losing control in own company since the company's share belongs to the fund

Source: own development based on [2 - 4].

Digital development has led to new form of venture financing, called by the authors as innovative. Such form of organizing venture financing process provides for the unification of unrelated future users, developers and partners of the venture project into one ecosystem through the use of cash and (or) tokens (digital currency) within the framework of the economic platform of the project. Inside such platforms, project investors do not have an opportunity to actively influence its development due to their large number and fragmentation, but they have other profitable opportunities for themselves. For example, members of such ecosystem can not only keep their investments as assets, but also use them within the framework of the ecosystem being built. As a result, the innovative form of venture financing organization helps to solve several tasks of a venture project at once — providing necessary financing and ensuring the possibility of forming a basis to develop the project.

To the digital (innovative) form of venture financing the author attributes collective forms of investment using special Internet platforms and blockchain technology, the most popular among which are crowdfunding, ICO (initial coin offering), TSO (tokenized securities offering) and crypto funds.

Crowdfunding, or public (collective) project financing involves voluntary funds investment by private and (or) institutional investors through special Internet platforms.

At the moment, there are several main areas of crowdfunding:

donation-based crowdfunding (funds donation to implement the project);

reward-based crowdfunding (funds investment in exchange for receiving by individual investors of certain goods or services during project implementation);

crowdlending or debt-based crowdfunding (lending money to projects authors at a certain interest);

equity-based crowdfunding (offers individuals to own a share of property, to receive part of the profit, etc.).

Crowdlending and crowdfunding are suitable for the purposes of venture financing of a venture project. The main advantages and disadvantages of crowdfunding are shown in Table 1.3.

Bearing in mind the accelerating digital transformation at all levels of socio-economic systems, it can be assumed that investment and debt-based crowdfunding can be one of extra incentives to develop small and medium-sized businesses, acting as an alternative source of financing for innovative, including venture, projects.

With developing digital technologies and expanding scope of blockchain technology, venture investors have started to apply new form of venture investments known as ICO, which helps to solve some of issues that arise during classic venture financing, that is, the issue of coupons or tokens intended to pay for the platform services in the future - in the form of cryptocurrency.

At the same time, unlike IPOs, currency buyers do not become company shareholders, nor they can influence internal management decisions. In fact, ICO is another implementation of the crowdfunding model, when participants finance the company development now in order to get some benefits in the future [7].

Table 1.3 – Analysis of the nature of venture financing through crowdfunding.

<b>Advantages</b>	<b>Disadvantages</b>
Obtaining financing if there is only an interesting business idea (without product (service) and business plan prototype)	High risks for investors in terms of protecting their rights, as well as technological risks;
Obtaining financial resources in the form of a pre-order for products to be launched	Frauds are possible when transferring funds to the bank account of a crowdfunding platform, and then when transferring funds to the bank accounts of persons attracting investments
Reduction of time and financial costs for finding suitable investors through the use of Internet technologies	The lack of strict reporting and accounting generates a high level of risk for popular investors
Potential increase of sponsors by hundreds of times in case of investing even a small amount for the project development	High expectations of project creators can mislead potential investors
The possibility to conduct on-line marketing research by raising funds (the more people are willing to finance the product production, the greater demand it will have in the market)	Psychology of collective investment (people twice as eager give money to a project that has already raised 80% of the required sum than to a project that has raised only 20% of funds)
The possibility to attract professional investors in case of a successful fundraising campaign	Friends and family play a key role in the early stages of fundraising
Participation of investors in the project development through offering ideas to improve the project	Obligation to disclose the smallest details of the project. Many startups prefer to avoid this method of financing, since in order to interest the investor, the creators need to present their project in greatest details. Risk that intellectual property may be stolen by someone stays throughout the campaign.
Funding is not limited geographically	Lack of significant support in the field of management, finance. In addition, unlike projects funded by business angels or venture funds, startups funded by crowdfunding do not have access to business contacts.

Source: own development based on [5 - 6]

Among the ICO advantages, there are:

low fundraising charges (actually, these are the cost of transactions);

no need to register a legal entity and do a lot of paperwork;

an opportunity to sell the token on the free market in case of loss of faith in the project.

The main disadvantage of investing in ICO is the lack of clear legal instrument, resulting in high credit risks, weak protection of investors' rights, lack of unified approaches to the economic nature of tokens. ICO can be considered as an alternative to the classical form of venture financing in the form of a venture fund.

However, according to the authors, it is more promising to combine the mechanisms of attracting financing through ICO, providing easy access to capital, with the mechanism of implementing the classic venture financing with venture project evaluated (examined) by experts, as part of creating a new legal form of organization – crypto fund.

Crypto funds attract financing using blockchain platforms, offering investors an analogue of securities – security token. Tokenization solves one of the main issues of classical venture financing – liquidity. Classic venture funds can make a profit only after 5-10 years, while withdrawal in crypto funds can take months with tokens being liquid from the first day. Implementing venture investments in the form of creating a crypto fund is still a single innovation and may be applied in a limited number of socio-economic systems due to underdevelopment of the digital currency market and legal regulation. With reference to crowdfunding platforms regulation, approaches vary greatly: from complete ban to the absence of a relevant regulation.

The EU countries established following restrictions and requirements<sup>1</sup>:

mandatory licensing of a crowdfunding platform;

restrictions on the volume of investments over 12 months for one project from one investor (limits are different: e.g., €5 mln. in Italy and the UK, €1 mln. in France);

restrictions on the volume of investments depending on investor qualification<sup>2</sup>;

In Italy, there is rule to attract financing from institutional investors as a guarantee for private crowdfunders<sup>3</sup>;

number of countries have a cooling-off period – an interval during which an investor has the right to withdraw invested funds;

in some countries, e.g. France, Italy, Canada, there are legal requirements for crowdfunding platform operator to conduct a mandatory due diligence of companies attracting investments.

<sup>1</sup> Regulatory Framework for the Loan-Based Crowdfunding Platforms, Organisation for Economic Co-operation and Development (OECD), 13 November 2018.

<sup>2</sup> IOSCO Staff Working Paper Crowd-funding: An Infant Industry Growing Fast, 2014.

<sup>3</sup> Lombardi R., Trequattrini R., Russo G. Innovative Start-Ups and Equity Crowdfunding // International Journal of Risk Assessment and Management. 2016. Vol. 19. Nos. 1/2.

## Conclusions

The provided analysis of organizational forms of venture financing helps to make a logical conclusion about transformation of the traditional venture capital market and its transition to a new dimension under conditions of digital transformation of socio-economic systems. Extensive use of recent achievements in IT technologies enable mobilizing resources to implement the most ambitious venture projects by reducing the period of withdrawal from the invested project and the costs of its financing. At this stage of the Belarusian financial market development, the main reasons for low interest of investors in alternative investments are the low level of confidence and low information transparency of the innovative (digital) investment market, high enforcing risks.

The following are proposed as the main measures to develop venture financing through crowdfunding:

establishing requirements for the operators of investment platforms to verify the accuracy of information provided by the person attracting investments, including legal verification of documents provided, verification of persons attracting investments;

establishing requirements for crowdfunding platforms to examine investment projects and persons attracting investments;

attracting large accelerators and venture funds as "anchor" investors;

involving specialized agencies for projects examination;

establishing requirements for crowdfunding platform operators to disclose statistical information on non-fulfillment of obligations.

Measures proposed in this study address improving the quality of investment projects placed on crowdfunding platforms, reducing investment risks and increasing the attractiveness of this form of investment for retail investors.

The development of innovative forms of venture financing, in turn, will contribute to:

additional capital inflow to the venture capital market;

increasing the number of participants in the venture capital market;

increasing the investments offers to finance the development of venture projects;

reducing the risk of transactions performed on crowdfunding investment platforms.

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*Pavlyuchuk Yu. N., Zazerskaya V. V., Krivitskaya T. V., Flyachinskaya N. N., Filippova T. V.*

### IMPROVING THE ACTIVITIES OF ENTERPRISES IN THE IMPLEMENTATION OF INFORMATION TECHNOLOGIES

*Pavlyuchuk Yu. N., Zazerskaya V. V., Krivitskaya T. V., Flyachinskaya N. N., Filippova T. V.*

**Annotation.** The article analyzes the possibilities of implementing information technologies in the activities of housing and communal services enterprises to increase their efficiency. The object of the study is enterprises that provide housing and communal services in the territory of the Republic of Belarus. The importance of implementing information technologies is determined by achieving a balance between the interests of producers of housing and communal services and consumers of housing and communal services who use information technologies in their activities, which allow housing and communal services entities to increase efficiency.

Keywords: information technologies, housing and communal services, efficiency, services, information systems.

**Introduction.** The constant growth of information flows encourages society to create new ways to manage information in order to get even more benefits from its use. The use of information technologies is now becoming a leading factor in the development of most countries of the world, including the Republic of Belarus. In this regard, at the current stage of economic development, there is a question of using new methods and tools for managing the housing and communal services sector.