## ФІНАНСИ І ОБЛІК, БАНКІВСЬКА СПРАВА ТА СТРАХУВАННЯ / FINANCE AND ACCOUNTING, INSURANCE AND BANKING

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## CROWDFUNDING AND FUNDRAISING AS INNOVATIVE FINANCIAL TOOLS IN PROVIDING ALTERNATIVE ENERGY SOURCES

Objectives. Search and substantiation of directions for investing investment resources in alternative energy sources using crowdfunding and fundraising mechanisms. Method. Research methods in this scientific article are statistical, logical, historical, graphic, as well as general methods of scientific thinking: analysis, synthesis, induction, deduction. The results. The existence of the problem of insufficient financial instruments for building a system of alternative regenerative energy sources is substantiated. The necessity of an in-depth study and analysis of the financial tools of crowdfunding and fundraising for more effective provision of financial resources for the production of alternative renewable energy sources has been proven. Scientific novelty. The need for innovative financial instruments for "green" projects of renewable sources of energy resources has been identified. It is proposed and justified to use fundraising and crowdfunding start-up projects for the most optimal financing of social, so-called "green" investments in renewable energy sources at the current stage of the military crisis. Practical significance. The practical implementation of the proposed measures for the development of innovative projects based on fundraising and crowdfunding in the system of alternative renewable energy sources in the conditions of a crisis state of the economy will save financial resources and increase the profitability of domestic enterprises in the energy sector, which will have a positive effect on the general macroeconomic situation in the state.

*Keywords:* social investments, "green" startups, renewable energy sources, sustainable development, crowdfunding, fundraising.

#### Formulation of the problem

Energy is the main necessary resource for any kind of human activity, and first of all, for business processes and for solving common human (social) problems, such as: lighting, heating, transportation, information transmission and much more. In the conditions of the current global financial crisis, which is caused, first of all, by the energy crisis, that is, the crisis of the lack of exhaustive energy sources, there is a need all over the world to search for alternative sources of energy and effective financial mechanisms to motivate the participation of as many economic entities, households as possible, states and non-governmental organizations to the processes of development of such alternative sources of energy supply. The methods of research in this work are statistical, logical, historical, graphic, as well as general methods of scientific thinking: analysis, synthesis, induction, deduction.

#### Analysis of the latest scientific research and publications

Although enough studies have been conducted on the topic of the financial mechanism for the development and development of social investments, which include alternative energy sources, in particular, by such authors as L.L. Kot [2], C. Borzaga [11], T.O. Murovan [8], G. Galera [11], etc., but the problem requires further consideration in view of the deepening and dynamism of the global financial crisis. The question of which of the alternative energy sources would be more appropriate to develop, and therefore where exactly to invest money, remains unresolved today.

#### Formation of the purpose of the article

Therefore, the purpose of the article is to find and substantiate the directions of investing investment resources in alternative energy sources using crowdfunding and fundraising mechanisms.

#### The main material of the research

The driving force behind the development of our society is the reconciliation of contradictions between the depletion of the earth's natural resources and environmental pollution, on the one hand, and their unlimited consumption, on the other. As of October 2023, the distribution of all the main sources of energy used most often in the world. presented in Figure 1. In Ukraine today, almost a ton of natural resources is consumed per unit of GDP, while in the USA - only 3 kg [2, p. 3; 6, p. 3; 7, p. 4]. Therefore, tax legislation in Ukraine and in the world allows for a reduction of the tax burden, stimulating the development of renewable energy sources [8, p. 34; 8, p. 36; 9, p. 5; 14, p. 3].

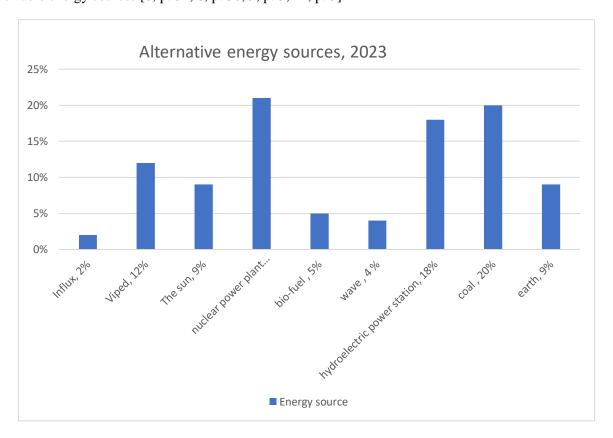


Fig. 1. Modern alternative energy sources, 2023

Calculated by the author based on [1, p. 5; 5, p. 2]

The efficiency coefficients of alternative types of energy, calculated as a percentage, are presented in Figure 2. From this graph, it can be seen that the lowest efficiency value is 8.33% in bioenergy (use of household, industrial and organic waste (biomass)), followed by coal (8.96%), followed by wind energy (9.67%). The next rung belongs to solar energy (10.97%), next to geothermal energy (energy produced from the energy of the Earth's interior from the energy of springs and geysers) (21.02%), then to natural gas (33.52%) and the highest efficiency in of electricity produced by hydroelectric power stations (78.5%). Energy from nuclear power plants also has approximately the same efficiency.

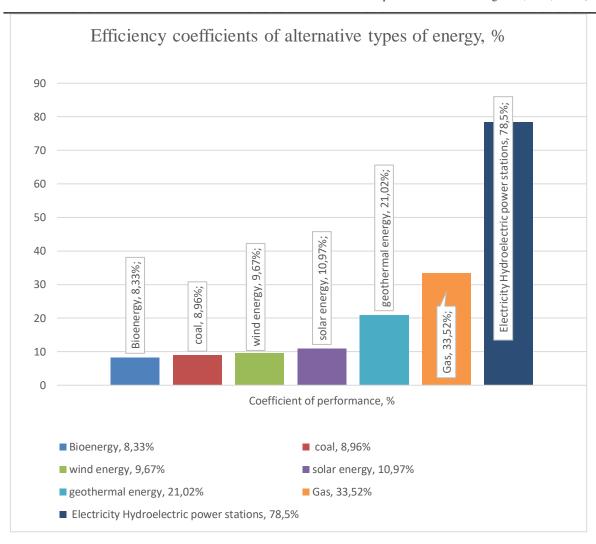


Fig. 2. Efficiency coefficients of alternative types of energy, %

Calculated by the author based on [3, p. 2; 4, p. 12]

Figure 3 shows the cost-effectiveness (cost-effectiveness) of alternative energy sources according to 2021 data. From these data, it can be seen that the most economical type of energy is solar photovoltaic energy (USD 857 / kW), followed by onshore wind energy (USD 1,325 / kW), followed by hydropower (USD 2,135 / kW), bioenergy (USD 2,353 USD / kW), coal (USD 2,858 / kW), geothermal energy (USD 3,991 / kW), and natural gas with a value of USD 4,521 turned out to be the most expensive type of energy. USA / kW. So, we can conclude about the most economical two types of energy - solar energy, which has an optimal ratio of efficiency and consumption per measuring unit - with 10.97% efficiency of spending only 857 dollars. USD/kW and wind (efficiency 9.67% at a cost of USD 1,325/kW). Bioenergy is also a fairly promising "green" source with a good ratio of efficiency and consumption (8.33% and 2353 USD / kW).

Therefore, an important direction in the development of alternative energy sources, such as solar, wind, bioenergy, and energy from hydropower plants, which according to our research were found to be most in line with the characteristics of renewable, low-cost, and efficient, should be the use of crowdfunding start-up platforms, as well as fundraising tools. Although these mechanisms are used in a wide range of economic and economic innovations, these financial instruments are not sufficiently applied in the field of renewable energy sources.

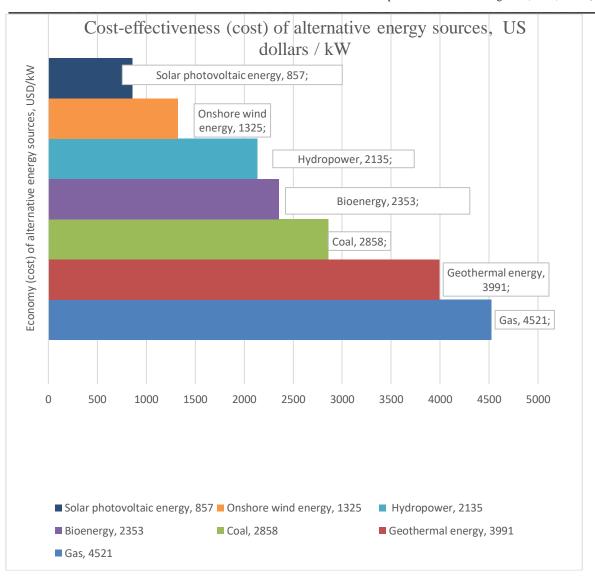


Fig. 3. Cost-effectiveness (cost-effectiveness) of alternative energy sources, 2021

Calculated by theauthor based on [2, p. 4; 3, p. 7]

In addition, it should be noted that the existing Renewable energy financing mechanism (REFM) needs to be revised [7, p. 3], introduced by the European Union in August 2020, which is limited to the possibilities of participation in it only by the countries and enterprises of the European Union. But given the fact that the problem of scarcity of energy sources is inherent in all countries of the world, it is necessary to expand the effect of this Financing Mechanism to all countries without exception, creating a global regulatory commission for the effective distribution of social, so-called "green" investments and giving access to both countries - to investors (Contributing Member State) and recipient countries (Host Member State) [7, p. 4]. In this regard, the financial mechanisms of crowdfunding and fundraising, which have not yet been used effectively enough in the field of alternative energy sources, turn out to be quite effective. [8, p. 4].

It should be noted that the domestic legal basis of non-profit organizations began to be formed only in the 90s of the last century. In contrast to the international concept of "non-profit organization", the concept of "public organization" was used in Ukraine, which, according to the Law of Ukraine "On Public Associations" dated March 22, 2012 No. 4572-VI, is a public association, founders and members (participants) which are natural persons, that is, in fact, its form. At the same time, a public association according to the specified legal act is a voluntary association of individuals and/or legal entities under private law for the exercise and protection of rights and freedoms, satisfaction of public, in particular

economic, social, cultural, environmental, and other interests [5, p. 2]. In our country, the first wave of "public organizations" was focused, as a rule, on the realization of spiritual, creative, sports, cultural interests, that is, they contributed to the development of social and cultural activities.

With the adoption of the relevant legislation (in particular, the Tax Code of Ukraine), the term "non-profit organizations" appeared, and new main characteristics and types of such organizations, including charitable and other foundations, were presented [4, p. 3].

One of the directions of transformation of non-profit organizations with cross-sectoral cooperation in the national economy leads to interaction with socially oriented business, which, in turn, creates a change in social relations and forms a new paradigm of interaction between society and entrepreneurs.

Undoubtedly, the outpost of the existence of the third sector in general and social enterprises in particular are the sources and mechanisms of their financing. It is known that the majority of the income of social enterprises consists of funds raised using various tools. Unfortunately, non-profit organizations rarely use state and own funds as the main sources of financing [8, p. 5].

However, state support for the activities of non-profit organizations remains a significant part of their financing. However, state policy today is increasingly directed towards selective support of individual subjects.

So, in particular, methods of financing social enterprises, such as fundraising and crowdfunding, have not yet been widely used in Ukraine.

Collective collection of funds by collective employees of any non-profit organization is called crowdfunding. This method of financing is better known to the private sector of Ukraine, since cooperation is an integral part, and sometimes even the main condition for the development of any project. At the initial stage of social projects, financing must also take place, so crowdfunding can be quite successful for this task [12, p.2]. Crowdfunding is increasingly common in the provision of financial assistance to Ukrainian non-profit structures. As already mentioned earlier, crowdfunding is beneficial in that due to the large mass of volunteers, organizations manage to collect the necessary amount of funds at a fast pace.

In the national economy, crowdfunding models are distinguished depending on the reward for the sponsor:

- without reward (donations): people simply donate money for the implementation of an idea, without obligations on the part of its author;
- non-financial reward ("Kickstarter" model): it can be postcards, a video expressing personal gratitude, a mention in a sold product, etc.;
- financial reward (crowdinvesting): in this case, large investors receive a percentage of income and sales. Most often, this type of crowdfunding is used to finance films, development of games and applications, music albums [10, c. 15].

The most popular directions for crowdfunding in the world are: social projects, gadgets and inventions, cinema, video and music, information technologies, small business, fashion. The main players in the crowdfunding market today are: Kickstarter, Indiegogo, GoFundMe, Fundable, Crowdcube, GoGetFunding, Patreon, Crowdfunder, CircleUp, AngelList, DonorsChoose, Crowdfunder UK, FundRazr, Companisto, Campfire, Milaap, Crowdo, CrowdPlus, Modian, Idianchou, Alibaba, Jingdong, Suning [9, p. 2].

There are several most popular platforms where you can present your project and get funding for your idea.

"Kickstarter" is the most famous and one of the first crowdfunding platforms in the world, founded in 2009. It works according to the following principle: the project owner needs to register, post a description of the idea and the minimum amount of funds that must be collected. If 100% of the stated amount could not be collected within the deadline, the money is returned to the benefactors. "Kickstarter" itself receives 5% of the funds raised. In addition, the platform has geographical restrictions - residents of the USA, Great Britain, Canada, Australia, New Zealand, the Netherlands, Germany, Denmark, Ireland, Sweden, Norway can add a project to the platform (Ukraine is not included in this list yet). Those wishing to come from other countries will have to use the services of intermediaries. The main topics of the projects include: innovative products, cinema, music, art, games, gadgets [9, p. 4].

Another popular crowdfunding platform is Indiegogo. It also takes a commission for adding a project to the platform, but at the same time there are no restrictions on the type of projects. Music and hobbies, as well as personal finance, charity and much more, are popular. Unlike Kickstarter, Indiegogo has no geographic restrictions on campaign creation and funding, so the project author can get paid even if he hasn't collected 100% of the stated amount on time.

"Crowdfunder" is a platform for attracting investments, which provides access to one of the most dynamically growing networks of investors in the world. Often, after placing a project on Kickstarter or Indiegogo, the author registers it on Crowdfunder to attract investors to sell shares.

There are also other specialized platforms dedicated to music and literary projects, in particular, PledgeMusic, Unbound, Distrify. Fundable, Crowdcube and Seedrs resources may be useful for those wishing to create their own startup. All that is required from the author of the idea is to describe in detail why it is worthy of investment and how the innovation will be useful for society, how it can change the world, or how benefactors can get their money back [9, p. 3].

In Ukraine, the level of development of crowdfunding platforms is an order of magnitude lower than in the leading countries of the world. But it can be stated that they began to actively develop in our country not so long ago. The most popular crowdfunding platforms in Ukraine are "Spielnokost - BigIdea", "Na-Starte" and "KUB" (from PrivatBank) [2, p. 4].

The first two platforms specialize in creative (film financing) and social (educational programs for children) initiatives.

According to the terms of "Spielnokost - BigIdea", the author of the project receives the contributions collected from benefactors only if the project has collected the full amount of funds with the help of the program within the set period. There is a flexible financing scheme, which provides for the possibility of receiving the funds collected on the site, if the project has already collected an amount that exceeds 50% of the declared amount. During the transfer of funds to the project executor, the organization independently deducts from this amount administrative costs in the amount of 10%, which include payment system commissions and costs for the development of the web resource and popularization of the program. For flexible financing schemes, 15% of the total amount of collected funds is withheld [7, p. 4].

"Na-Starte" allows the author of the project to receive the collected contributions only if the project has collected the full amount of funds within the set period. The agency commission of the "Na-Starte" platform is charged only if the project collects the required amount. In this case, the commission is 8% of the amount without taking into account the commission of payment systems [3, p. 9].

When investing in a project on these sites, you should not count on a profit. Depending on the size of the investment, creators can thank the investor personally via Facebook, send branded products, provide a service, a master class or an excursion related to the project's theme.

On the third platform - "KUB" - business projects are more common. This is scaling up production, hiring additional employees, opening new retail outlets. Investors' profit from "KUB" projects is clearly differentiated: after investing UAH 1,000, the investor will receive UAH 230 per year. And for UAH 20,000, you can count on an additional UAH 4,600 in 12 months. In addition, all deposits on this platform are insured [2, p. 5].

If you look at the number of organizations that raise funds with the help of crowdfunding, then, despite the small development of this industry in our country, you can see their clear growth. In particular, the "Renaissance" International Foundation as part of the "EU4USociety" project in cooperation with the European Union announced the "Crowdfunding for Social Entrepreneurship" competition on February 2, 2022, the purpose of which is to strengthen functioning social enterprises, popularize social entrepreneurship and create a positive practice of involvement by social enterprises community funds. Contest participants may be public organizations, unions, associations, societies and other associations registered in accordance with Ukrainian legislation as non-profit or charitable organizations [6, p. 4].

In percentage terms, in 2021, among social enterprises, there were 67% of organizations that receive funding through crowdfunding, while the global use of crowdfunding tools in social entrepreneurship increased by 81% in 2021 [11, p. 4]. The following world trends can also be noted: much more capital was attracted by North America and Europe due to the use of this tool than on similar platforms in other regions. Accordingly, the North American volume of crowdfunding increased by 105% and amounted to 1.9 billion dollars, and the volume of European crowdfunding operations increased by only 67% and amounted to 949 million dollars [12, p. 14]. These trends are confirmed by the "Crowdfunding industry report" data on the number of crowdfunding platforms. According to analysts' forecasts, as the world economy recovers, the growth of crowdfunding in 2022 will change significantly compared to the previous year.

According to the latest research, the volume of the global crowdfunding market in 2022 will be 14,340 million US dollars. The volume of the global crowdfunding market will reach USD 28,800 million in 2028, increasing by an average of 11.6% over the analyzed period. The report details the drivers and restraints of the crowdfunding market, along with the impact of Covid-19, which is impacting the development of the respective market. The study covers and includes emerging market trends, market development, market opportunities, market size, sales, market analysis, market revenues, market dynamics and industry challenges, detailed competitive landscape sections with descriptions of major companies, including their share of market and projects [9, p. 5].

Of course, we agree with a number of experts who consider crowdfunding technologies as one of the promising tools for the activity of social enterprises in Ukraine, as due to concerted efforts it is possible to obtain impressive results in various spheres of their activity [2; 11; 12].

The experience of crowdfunding in our country is underestimated, because it is equated with begging, meanwhile, advanced Internet users consider this direction to be revolutionary, which allows you to implement grandiose projects with the help of raised funds with zero own budget. Crowdfunding motivates those who can set ambitious goals and do not always see them through to completion. Having announced your goal and collected a certain amount, it is no longer ethical to go "backwards". Crowdfunding works perfectly: those people who have invested money in the project "willy-nilly" begin to interest all their surroundings in it. Everything starts to grow like a tree. All crowdfunding projects are interesting in their own way, and each has the potential for monetization. In this case, people create something truly new and are not afraid to take risks, despite the difficulties.

Fundraising is one of the next tools for attracting resources to social entrepreneurship, which is actively used by the leaders of world rankings [2, p. 10].

Fundraising is actually a public process of collecting funds, which are involved for the implementation of socially significant projects. Fundraising makes it possible to raise money at the expense of volunteers or, as they are also called, donors. Its difference, for example, from charitable activities is that it has the most modern creative fundraising goals. The considered type of resource attraction is used, in particular, in the work of non-governmental and non-profit organizations. Currently, two approaches to understanding this technology can be distinguished. In the first case, fundraising involves the collection of funds for charitable (non-profit) purposes and the absence of direct material benefit for the subject of this action. In the second case, fundraising is interpreted more broadly as the activity of attracting donors in any form for any purpose (not necessarily charitable). At the same time, donations can be both in the form of monetary funds and in the form of in-kind, labor donations. Fundraising is in many ways similar to charity, as it helps to finance the activities of all sectors of the economy, but to a greater extent - non-profit organizations, which are the majority of social enterprises today [11, p. 6].

At its core, fundraising has a lot to do with finding investors. The difference is that investors are usually sought for commercial projects, "seriously and for a long time", to create capital funds, when the return on investment is expected after a long time. The goal of the investor is to make a profit. Fundraising is related to the search for funds for non-profit projects that, in principle, cannot be implemented in a commercial mode. Fundraising technology is relevant when there is a lack of working capital for project implementation (not for the creation of capital funds, but for current activities).

Modern fundraising technology was formed gradually through the support of socially significant public initiatives. Fundraising in Ukraine is at the stage of growth, while the leaders in this field are the USA, Australia, New Zealand and Great Britain.

Today, there are about 9,000 grant-giving institutions in Great Britain, which distribute about 1.5 million pounds. The country's two largest foundations: the Wellcom Foundation and The National Lottery Charities Board provide 35% of this volume. In 1983, the British government created the intermediary organization "Arts & Business", which is engaged in fundraising (the search for sponsors for cultural organizations) [12, p. 8].

The largest scale of distribution of charity has gained in the United States of America. This was caused by the early development of a democratic society in the country and the organization of the state economy - the development of private property and entrepreneurship, a market-oriented economy.

In recent years, there have been about 29,000 fundraisers in the United States. America's fundraisers are guided in their activities by a declaration of ethical principles called the "Statement of Ethics of the Council

for Development and Education", as well as the "Code of Ethics" and "Standards of Professional Practice", which were adopted by the Association of Professional Fundraisers [11, p. 3].

Modern fundraising originates from the creation of the organization "Wells Organization" founded by Lewis Wells and Ashley Hale in the USA. Wells' program of activities focused on fundraising primarily for the church. Over time, the American company began to operate in Canada, and later in 1954 opened an Australian company. Later, "Wells Organization" began to operate in South Africa, New Zealand and England [12, p. 6].

It is necessary to emphasize the issue of how foreign fundraising is acceptable for Ukrainian practice. The formation of fundraising as a system of attracting funds in Europe and the USA was carried out separately from the state. Non-profit organizations independent of the state solved a significant part of the problems in the field of attracting funds and other resources on their own. However, it should be noted that today the state does not stand aside and in various ways creates a favorable climate for the development of fundraising technologies in the "third sector": it actively stimulates donors with tax benefits, etc. [12, p. 1]. If we talk about Ukrainian social enterprises, then it is possible to diagnose such foundations of fundraising development as the development of successful practices of organizations, their use of fundraising tools in their work, the opening of fundraising schools, etc. [12, p. 4]. In particular, the Ukrainian fundraising ecosystem "Synergy Universe" is currently launching a new information resource on sustainable development and capacity building with the help of fundraising - attracting grants, investments in the field of nonrefundable donor aid. The "Synergy Universe" group of companies is the first fundraising ecosystem in Ukraine, which works for sustainable development and capacity building by attracting grant (nonrefundable) funds to Ukrainian projects, business development, public organizations and improving the work of united territorial communities. The group unites the following areas: Synergy Development Consulting (project management and building financial sustainability through complex fundraising), Synergy Academy (the first Academy that trains and employs grant writers and fundraisers), Synergy for Action (fundraising simulation games), Synergy Investments ( attracting investments for business), Synergy Club (a unique community of people who want to develop their projects with the help of fundraising opportunities). In 2020, the company attracted more than 2 million euros of funds for its clients [11, p. 4].

Research in the field of fundraising, conducted in 2018, showed that in our country about a third of the funds go to the development of education and science, a little less goes to the formation of civil society, and almost 10% goes to cultural activities [11, p. 6].

It is proposed to apply the following financial mechanism to solve the problem of the introduction of alternative (regenerative) energy sources, in particular wind land, solar energy, hydroelectric power plants and bioenergy complexes, as shown in Figure 4.

Important at the same time when developing, for example, a crowdfunding start-up platform is to focus on the informational component (clarifications among potential investors), marketing coverage of an untapped segment of potential sponsors, which will make it possible to increase the share of both internal and external investments in the field "green" energy complex by approximately 17-35% [6, p. 12; 12, p. 4].

Therefore, crowdfunding and fundraising are very promising directions for the reorientation of traditional cost-intensive energy complexes, such as oil and gas production, etc. limited energy sources, to more modern renewable ecological energy systems. And here it is worth not losing any visible, defined opportunity for reformatting the energy industry in the direction of its most optimal development. Therefore, the financial toolkit of crowdfunding will help solve this problem with the least expenditure of financial resources and time, because it works on the basis of volunteering. And at the moment, energy transformation is not covered by crowdfunding startups [12, p. 2].

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Fig. 4. Financial mechanism for the development of alternative (state, renewable energy sources through crowdfunding and fundraising platforms

Developed by the author based on [6, p. 12; 9, p. 3; 10, p. 7; 11, p. 5]

Despite the above, the technologies for attracting funds for the implementation of non-profit projects are rather poorly developed. Many non-profit organizations, in interaction with donors, in most cases, face such a problem as the competent construction of the process of attracting resources. Due to weak financial literacy, most social projects are doomed to failure. Investigating crowdfunding and fundraising as mechanisms for financing social entrepreneurship in the national economy, it would be appropriate to conduct a comparative analysis of these categories. Thus, if fundraising is the search and attraction of money and other resources for the purpose of implementing social and commercial projects, then crowdfunding is the collective collection of funds via the Internet for charitable purposes and commercial projects. Despite the fact that crowdfunding is popular among various startups, social enterprises are increasingly using the fundraising system in their activities.

Many reasons can serve as the basis for explaining why such financing methods are not widespread in Ukraine today, although this is understandable, since the formation of any institute takes many decades, which is confirmed by foreign formation practices. But from a macroeconomic point of view, it would be possible to fully implement such financing methods in Ukrainian realities. We note that in this case it is important to provide people with information that can encourage them to help those in need of financial support.

#### **Conclusions**

The further development of such a phenomenon as fundraising and crowdfunding in the field of activity of social enterprises of Ukraine depends on the way in which the non-profit sector in the country will develop. Of course, the necessary level of development of the social sphere is impossible without state leadership and control. In our opinion, in order to develop new fundraising and crowdfunding technologies, Ukrainian social enterprises (with the help of borrowing and improving foreign experience, because they are "pioneers" in this area) need to learn correctly, build long-term relations with the state, business - structures and representatives of the population in the process of intersectoral partnership.

Management of fundraising start-up projects in the transformational energy process is expedient to carry out at the current stage, because financing through the grant system is very promising today, does not require additional funds for advertising and informing the public, and there are many accumulated (funded) funds that are just waiting on their startups. Moreover, the current financial crisis prompts startup businessmen to increase their activity in independently searching for the necessary grants as sources of funding for their startup projects. A competent information campaign of the attractiveness of energy startups in particular will help accelerate the transition of the energy complex to environmental friendliness and "green" development.

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# КРАУДФАНДИНГ ТА ФАНДРЕЙЗИНГ ЯК ІННОВАЦІЙНІ ФІНАНСОВІ ІНСТРУМЕНТИ В ЗАБЕЗПЕЧЕННІ АЛЬТЕРНАТИВНИХ ДЖЕРЕЛ ЕНЕРГІЇ

Мета. Пошук та обгрунтування напрямків вкладення інвестиційних ресурсів в альтернативні джерела енергії з використанням механізмів краудфандингу та фандрейзингу. Методика. Методами дослідження в цій науковій статті є статистичний, логічний, історичний, графічний, а також загальні методи наукового мислення: аналіз, синтез, індукція, дедукція. Результати. Обгрунтовано наявність проблеми недостатності фінансових інструментів для розбудови системи альтернативних відтворювальних джерел енергії. Доведено необхідність поглибленого вивчення та аналізу фінансового інструментарію краудфандингу та фандрейзингу для більш ефективного забезпечення фінансовими ресурсами процесів видобутку альтернативних відтворювальних джерел енергії. Наукова новизна. Виявлено потребу у інноваційному фінансовому інструментарії «зелених» проектів відтворювальних джерел енергоресурсів. Запропоновано та обгрунтовано використовувати фандрейзингові та краудфандингові стартап-проекти для найоптимальнішого на сучасному етапі військової кризи фінансування соціальних, так званих «зелених» інвестицій у відтворювальні джерела енергії. Практична значимість. Практична реалізація запропонованих заходів із розробки інноваційних проектів на базі фандрейзингу і краудфандингу в систему альтернативних відтворювальних джерел енергії в умовах кризового стану економіки дозволить зекономити фінансові ресурси і підвищити рентабельність вітчизняних підприємств енергетичного сектору, що позитивно позначиться на загальній макроекономічній ситуації в державі.

Ключові слова: соціальні інвестиції, «зелені» стартапи, відновлювані джерела енергії, сталий розвиток, краудфандинг, фандрейзинг

#### **REFERENCES**

- 1. Prohramy finansuvannia alternatyvnoi enerhetyky (2023) [Alternative energy financing programs] / URL: https://iknet.com.ua/uk/article/funding-programs . (data zvernennia: 17.11.23). [In Ukrainian]
- 2. Kot L.L. (2022) Kraudfandynh ta fandreizynh yak mekhanizmy finansuvannia sotsialnoho pidpryiemnytstva u natsionalnii ekonomitsi. [Crowdfunding and fundraising as financing mechanisms for social entrepreneurship in the national economy]. *Problemy systemnoho pidkhodu v ekonomitsi*. Vol. 1 (87). URL: http://psae-jrnl.nau.in.ua/87-2022. (data zvernennia: 23.11.2023). [In Ukrainian]
- 3.IRENA (2022) «Stoymost proyzvodstva эlektroэnerhyy yz vozobnovliaemыkh ystochnykov v 2021 hodu» . Mezhdunarodnoe ahentstvo po vozobnovliaemыm ystochnykam эnerhyy ["Cost of electricity production from renewable sources in 2021". International Agency for Renewable Energy Sources], Abu-Daby. ISBN: 978-92-9260-452-3" (2022). IRENA International Renewable Energy Agency. URL: https://www.irena.org/-

/media/Files/IRENA/Agency/Publication/2022/Jul/IRENA\_Power\_Gen\_Costs\_2021\_Summary\_RU.pdf?rev=2dd37 6118c4d466db3a6accf0cb95bb4. (data zvernennia: 25.11.23). [in English].

- 4. V Ukraini zapushchena informatsiina platforma z fandreizynhu. (2022) [An information platform on fundraising has been launched in Ukraine] URL: https://www.prostir. ua/?news=v-ukrajini-zapuschena-informatsijna-platforma-z-fandrejzynhu-ta-hrantrajtynhu (data zvernennia: 05.10.2023). [In Ukrainian]
- 5. Kraudfandynh v Ukraini: sutnist, stan ta osoblyvosti diialnosti v Ukraini. (2022) [Crowdfunding in Ukraine: essence, state and peculiarities of activity in Ukraine]. URL: https://www.businesslaw.org.ua/craundfunding-v-ukraini-t/ (data zvernennia: 05.02.2023). [In Ukrainian]
- 6. Kraudfandynh dlia malykh ta serednikh pidpryiemstv. (2022) [Crowdfunding for small and medium-sized enterprises]. URL: http://www.smedevelopment.info/ searchfinance/3/ (data zvernennia: 07.02.2023). [In Ukrainian] 7. Rehlament pro Mekhanizm finansuvannia alternatyvnykh dzherel enerhii Yevropeiskoho Soiuzu № 2020/1294 (the Regulation on the Union renewable energy financing mechanism (EU) 2020/1294) (2020). URL: http://aures2project.eu/wp-content/uploads/2020/11/AURES\_II\_D6\_3\_EU.pdf. (data zvernennia: 17.11.23). [in English].
- 8. Murovana T.O. (2019) Suchasnyi stan ta tendentsii investuvannia u rozvytok vidnovliuvanykh dzherel enerhii [The current state and trends of investing in the development of renewable energy sources]. *Ekonomika i upravlinnia: Ekonomichna nauka*. Vol. 4. pp. 34-43. [In Ukrainian]
- 9. Proiekt «EU4USociety».(2022) ["EU4USociety" project]. URL: https://www.irf.ua/program/eu4usociety/ (data zvernennia: 10.10.2023). [In Ukrainian]
- 10. Spilnokosht. Kraudfandynh: yak zibraty koshty? (2022) [Shared cost Crowdfunding: how to raise funds?]. URL: https://biggggidea.com. (data zvernennia: 15.10.2023). [in English].
- 11. Borzaga, C; Galera, G. (2019) Social enterprise: An international overview of its conceptual evolution and legal implementation. *Social Enterprise Journal*. Vol. 5 No. 3, pp. 210–228. [in English].
- 12. Crowdfunding Platforms Want to Inspire Others? (2022) URL: https://www.ceefundraising.org/apply?gclid=CjwKCAjwlcaRBhBYEiwAK341jQ2uPdRm75dY1-szRZ2htmVb-Bx-8bglxLbTiOMi6vPZ6ZKnYwi7K BoCehcQAvD BwE (дата звернення: 12.10.2023). [in English].

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