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Crowdfunding and modern financial technology in the western and domestic practices: the current state and prospects for development

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Abstract. The article in hand presents the authors' position regarding the current state and prospects for development of crowdfunding and modern financial technology (FinTech) in the US and European practices, as well as in those of the Russian Federation at the end of the 2021 financial year. The authors study the basics of crowdfunding as financial innovations in lending and investment and distinguished seven basic types of crowdfunding. They also present the results of the complex analysis of the FinTech function mechanisms in the sphere under consideration. The article contains the performance results of five largest American crowdfunding web-sites (AngelList, Kickstarter, Fundable, EquityNet и WeFunder) and the most successful European investment platforms (Ulule, Startnext и CrowdFunder). The authors examine specific features of applying FinTech in lending and investment of the Russian Federation. The carry out the historical and territorial analysis using the registration data of all investment platforms in the official "Register of investment platform operators of the Central Bank of the Russian Federation". Using the analysis of factual financial data at the end of 2021 from 59 companies registered as investment platforms in the above mentioned register the authors conducted financial analysis of their performance. They found out that only 50% of the companies under study were able to attract investment for financing at least one investment project. It has been stated that only 16 companies in the Russian Federation can be more attractive for private investors compared to other crowdfunding platforms, as at the end of 2021 they did not have any unfulfilled investment obligations. The article shows that development of the Russian crowdfunding law is going on systematically, because the ideas of collective financing of different small and medium business projects are actively supported at the government level.

Keywords: crowdfunding, modern financial technology, various crowdfunding models, crowdfunding companies, crowdfunding platforms and services, economic effectiveness of crowdfunding

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Краудфандинг и современные финансовые технологии в западной и отечественной практике: текущее состояние и перспективы развития

Аннотация. В данной статье представлена авторская позиция в отношении текущего состояния (по итогам 2021 финансового года) и перспектив развития краудфандинга и современных финансовых технологий (FinTech) в практике США и Европы, а также в Российской Федерации. Авторами рассмотрены основы краудфандинга как финансовых инноваций в сфере кредитования и инвестирования с выделением семи основных видов краудфандинга, а также изложены результаты проведенного комплексного анализа механизмов функционирования FinTech в указанной сфере. Представлены результаты работы пяти крупнейших американских краудфандинговых площадок (AngelList, Kickstarter, Fundable, EquityNet и WeFunder), а также наиболее успешных европейских инвестиционных платформ (Ulule, Startnext и CrowdFunder). Авторами рассмотрены особенности применения FinTech в практике кредитования и инвестирования в Российской Федерации. Был выполнен исторический и территориальный анализ на основании данных о регистрации всех инвестиционных платформ в официальном «Реестре операторов инвестиционных платформ Центрального банка РФ». На основе фактических финансовых данных по итогам работы за 2021 г. 59 компаний, зарегистрированных в указанном реестре в качестве инвестиционных платформ, авторами был проведен финансовый анализ их деятельности. Установлено, что только половина исследуемых компаний смогла привлечь инвестиции на финансирование хотя бы одного инвестиционного проекта и только 16 компаний в Российской Федерации относительно других краудфандинговых площадок могут быть в большей степени привлекательными для частных инвесторов, поскольку на конец 2021 г. не имели неисполненных инвестиционных обязательств. Показано, что развитие российского законодательства о краудфандинге происходит планомерно, поскольку идеи коллективного финансирования различных проектов малого и среднего бизнеса достаточно активно поддерживаются на государственном уровне.

Ключевые слова: краудфандинг, современные финансовые технологии, различные модели краудфандинга, краудфандинговые компании, краудфандинговые платформы и сервисы, экономическая эффективность краудфандинга

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众筹与现代金融技术在西方和国内的实践:现状与展望

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摘要:作者基于2021财年的结果,对众筹和现代金融技术(FinTech)在美国和欧洲,以及在俄罗斯联邦的发展现状和前景提出了自己的见解。作者研究了众筹作为借贷和投资领域的金融创新的基本原理,强调了七种主要的众筹类型,并介绍了对该领域金融科技运作机制的全

面分析结果,展示了美国五大众筹平台(AngelList、Kickstarter、Fundable、EquityNet和WeFunder)和欧洲最成功的投资平台(Ulule、Startnext和CrowdFunder)的工作成果。研究了金融科技在俄罗斯联邦贷款和投资实践中的应用特点。作者根据所有投资平台在"俄罗斯中央银行投资平台运营商登记册 "中的官方登记信息,进行了历史和区域分析。根据对在此登记的59家投资平台公司2021年业绩的实际财务数据分析,作者对其活动进行了财务分析,发现所研究的公司中只有一半能够吸引投资,为至少一个投资项目提供资金。研究发现,俄罗斯联邦只有16家公司,相对于其他众筹平台可能对私人投资者更具吸引力,因为截至2021年底,他们没有未履行的投资承诺。文章指出,俄罗斯有关众筹的立法正在有序地发展,因为中小型企业各种项目的集体融资想法在国家层面得到了相当积极的支持。

关键词:众筹;现代金融技术;不同的众筹模式;众筹公司;众筹平台和服务;众筹的经济效益

Introduction

In the modern economy, innovative financial technologies (*FinTech*) and services are being actively used, making it possible to change the traditional public relations in business and transform it into a "common consumer economy", which assumes the collective use of various goods, products, works or services to comprehensively satisfy the needs of all customers [1, p. 10].

It should be noted that the "Sharing Economy" as a new economic concept was first presented in the book "What's Mine Is Yours: The Rise of Collaborative Consumption" by Rachel Botsman and Roo Rogers (2010). The main idea of this theory consists in that the consumer has a greater benefit under the condition of temporary access to the product than under the condition of full ownership of it [1, p. 15].

One of the most promising areas of the collaborative consumption economy is crowdfunding¹ [2, p. 147, 232], which is "the collective cooperation of people (donors) who voluntarily pool their money or other resources together, usually through the Internet, to support the efforts of other people or organizations (recipients)" [3].

Crowdfunding fundamentals as a financial innovation in lending and investing

The crowdfunding financing mechanism excludes the involvement of intermediaries (exchanges, funds or banks), making lending and investment procedures more democratic. The most important prerequisite for its implementation is the personal interest of the financier (creditor or investor) to invest his own funds in an investment project.

A crowdfunding investment platform has three participants: 1) architect of a project for which certain financial resources need to be raised; 2) maintainer of the platform (provides technical means and space and sponsors an advertising campaign) and 3) sponsors who are willing to finance the project that interested them.

As a rule, the maintainer of the platform offers various payment systems with the permission to access them, including through social networks, which increases the awareness of potential investors. For each project, information shall be published on the amount to be raised, the timetable for implementation and a description of the objectives of the investment, including the specifics of the remuneration or lack thereof. The presentation of the project for which funds must be raised (usually in video format), information about the architect and linking to a specific bank account, as well as the possibility of accessing social networks are mandatory.

The crowdfunding platform thus allows the investor to communicate with the architect of the project they like, to receive notifications about other projects and to find out about the investment activity of all participants.

In world practice, crowdfunding with the use of FinTech technology has been actively developing for several decades. Currently, the European Commission distinguishes seven types of crowdfunding (**Table 1**).

FinTech applications in credit and investment practice in the United States and Europe

It should be noted that in the traditional banking system there is constant fierce competition, which leads credit institutions not only to aggressive marketing campaigns and the mass opening of branches, but also to the introduction of inno-

¹ Crowdfunding is a new word formed by adding the English words bases "crowding" – private investment and "funding" – allocation of funds [2, p. 147, 232].

vations (credit cards, ATMs, "electronic cash boxes") that radically change the process of handling money. However, the most important innovators in the financial sector are FinTech start-ups, often led by former heads of traditional banks who are well aware of the shortcomings of the service system in traditional credit institutions.

It is FinTech startups that develop mobile applications that allow to switch to application programming interface (API)² on the basis of separate blocks that can be installed in various sequence [5]. With the constructor offered by FinTech, the IT manager of any company, including a traditional bank, can create new financial solutions within the company or use a standard set of mobile applications. API capabilities allow banks to expand their service offerings internationally, reduce the cost of developing an innovative system and make a net profit without making huge investments in building a modern financial sector both in a single country and in the world at large [6, p. 35].

Crowdfunding in various functioning modules and platforms scale activities has become wide-

spread all over the world. The largest number of crowdfunding platforms functions in the USA. The five major and oldest ones in the U.S. for their lifetime have raised about \$18.2 billion in the aggregate (**Table 2**).

The EquityNet crowdfunding platform (according to the site information update for the February 23, 2022) provides up-to-date crowdfunding market research statistics that use EquityNet's unique interactive charts.

Visitors to the site can view dozens of business attribute charts that are segmented by industry sector, geography and 15-year trends (2007 through 2022 inclusive). They provide detailed information on the various financing purposes of the projects, the amounts of financing raised, the economic valuations of the individual investment projects, the company's equity, the company's revenues in the previous and current year, the growth rates of revenues, the market size and growth rates, as well as the age of the company and the number of employees [12, p. 1].

The first European crowdfunding platform Ulule was created in France (headquarters in Paris, offices in Germany and Spain) in 2010. In the 12 years of its existence, more than 4.6 million contributions totalling 239 million euros have been made in 16 different project areas [13, p. 1] (**Table 3** and **Table 4**).

Table1
Seven types of crowdfunding identified by the European Commission

Russian and English term	Meaning explanation
1. Peer-to-peer Lending	Individuals lend money to a company expecting the money to be returned with interest. This is very similar to conventional borrowing from a bank, except that financial resources are borrowed from multiple investors
2. Equity Crowdfunding	Selling a stake in a business to a number of investors in exchange for investment. The idea is similar to how ordinary stocks are bought or sold on the stock exchange or in venture capital
3. Rewards-based Crowdfunding	Individuals donate to a project or business expecting to receive a non-financial reward, such as goods or services, in return at a later date in exchange for their contribution
4. Donation-based Crowdfunding	Individuals donate small amounts of money to achieve the larger goal of funding a specific charitable project without receiving a financial or material return
5. Profit-sharing / Revenue-sharing	Businesses may share future profits or revenues with individuals (many investors) in exchange for funding now
6. Debt-securities Crowdfunding	Individuals invest in debt securities issued by a company, such as bonds
7. Hybrid Models	Chance to combine elements of more than one type of crowdfunding

Source: compiled by the authors on the basis of translated data from the European Commission official website [4, p. 1].

² API or *Application Programming Interface* is a set of tools and functions in the form of an interface for creating new applications, through which one program will interact with another [5].

Five largest American crowdfunding platforms

Table 2

Platform name (city, state, year of foundation)	Operational features of the crowdfunding platform	Fundraising amount, \$ billions
AngelList (San Francisco, California, 2010) [7, p. 1]	The platform unites more than 15,000 foundations and syndicates. More than 12,000 startups have been financed during the work period. The total volume of financing comprises 57 $\%$ of all large venture capital deals in the USA	> 10
Kickstarter (Brooklyn, New York, 2009) [8, p. 1]	The platform is focused on creative projects support. During the work period about 220,000 projects were financed, including films, music, stage shows, comics, video games, et al.	> 6.6
Fundable (Powell, Ohio, 2012) [9, p. 1]	Originally, it was created as a reward-based platform. Since August 2012 the equity-based platform was launched. At present, accredited investors (with equity capital of at least \$1 million) can invest in startups through equity participation in the platform. Fundable charges applicants an upfront monthly fee starting at \$179, regardless the application decision out	> 0.57
EquityNet (Salt Lake City, Utah, 2005) [10, p. 1]	The platform is a "crowdfunding pioneer", owning five patents for creating crowdfunding platforms and analytics. Advises on business planning, financing strategies, marketing, etc. Since its inception, more than 10,000 U.S. companies have been funded. The platform has published unique crowdfunding statistics for over 15 years	> 0.5
WeFunder (San Francisco, California, 2011) [11, p. 1]		> 0.49

Note. The list of crowdfunding platforms is given in descending order of fundraising for the crowdfunding platform entire work period.

Source: compiled by the authors based on data from the researched crowdfunding platforms official websites [7, p. 1; 8, p. 1; 9, p. 1; 10, p. 1; 11, p. 1].

Table 3
Information on the Ulule crowdfunding platform activity results
for the entire work period and the last 5 years

			Inclu	ıding foı	the year	r
Indicator	Overall	2018	2019	2020	2021	2022 (4 months)
Total amount of funds collected, € million.	238.99	30.81	28.86	35.69	36.43	10.84
Percentage share of co-financing of various projects in the total amount of money raised, %*	94.73	94.00	96.05	97.14	96.68	90.13
Total amount of finances allocated to various projects, € million	226.39	28.96	27.72	34.67	35.22	9.77
Number of launched projects, thous.	58.41	7.99	5.98	5.43	5.78	1.58
Successful projects number, thous.	40.08	5.13	4.37	4.16	4.59	1.23
Success rate, %*	68.62	64.21	73.08	76.61	79.41	77.85
Average contribution, €	51.62	54.01	49.80	51.79	53.66	53.44
Contribution number, thous.	4,630.19	570.45	579.42	689.12	678.86	202.89

^{*} The hundredths were specified by the authors on the basis of calculations from the original data of the Ulule crowdfunding platform official website [13].

Source: compiled by the authors on the basis of statistical data presented on the Ulule crowdfunding platform official website [13] (as of 07 May 2022).

The annual fundraising trend over the past three years is positive, ranging from \in 28.86 million in 2019 to \in 36.43 million in 2021.

The total number of projects launched on the Ulule crowdfunding platform for fundraising throughout its operation is more than 58.4 thousand, of which more than 40 thousand were successfully implemented; the average success rate was 68.62 %. The average contribution - €51.62 (see Table 3).

The analysis of the funding structure of all projects presented on the Ulule website made it possible to identify the areas that are most successfully funded (see Table 4). These are primarily projects in publishing and journalism (\leq 29.74 million to fund 3,530 projects), charity and private citizens' projects (\leq 26.25 million to fund 5,770 projects) and music (\leq 23.44 million to fund 5,960 projects).

The crowdfunding platform Ulule most successful fundraisers are comic book publishing and music

Table 4
The project financing structure through Ulule crowdfunding platform in 16 areas for 2010–2022

		Share of		Numbe	r, thous.			
Direction name of funded projects in English	Total amount of funds collected, € million	funds, directed to financing of different projects from the total amount of collected funds, %*	Total amount of funds, directed to financing of different projects, € million	Set up projects	Success- ful projects	Success rate, %	Average contribution, €	Contribution number, thous.
Publishing & Journalism	30.84	96.43	29.74	4.86	3.53	72.63	42.03	733.69
Charities & Citizen	27.90	94.09	26.25	8.65	5.77	66.71	53.83	518.37
Music	24.38	96.14	23.44	7.65	5.96	77.91	44.14	552.30
Film and Video	23.65	94.42	22.33	7.88	5.76	73.10	49.58	477.04
Fashion & Design	22.29	95.29	21.24	3.44	2.21	64.24	76.20	292.63
Comics	21.55	97.40	20.99	2.39	1.97	82.43	42.23	510.32
Games	15.72	95.36	14.99	1.71	1.09	63.74	58.68	267.86
Crafts & Food	15.57	93.26	14.52	3.93	2.52	64.12	58.35	266.92
Art & Photo	9.91	92.43	9.16	3.48	2.34	67.24	51.42	192.68
Childhood & Education	8.79	93.97	8.26	2.96	2.03	68.58	46.54	188.93
Health & Wellness	8.72	96.90	8.45	1.13	0.85	75.22	49.62	175.79
Stage	7.85	93.89	7.37	3.19	2.28	71.47	51.78	151.66
Sports	7.36	91.98	6.77	2.94	1.68	57.14	68.34	107.65
Other projects	5.56	89.03	4.95	2.37	1.15	48.52	57.14	97.22
Technology	4.99	89.98	4.49	1.11	0.52	46.85	77.27	64.58
Heritage	3.54	91.81	3.25	0.64	0.38	59.38	85.56	41.40
Total	238.99	94.73	226.39	58.41	40.08	68.62	51.62	4,630.19

^{*} Hundredths are specified by the authors on the basis of calculations of the original data on the crowdfunding platform official website.

Note. Funded projects directions are presented in the order corresponding to the maximum amount of funds raised: from the largest to the smallest.

Source: compiled by the authors on the basis of statistical data presented on the Ulule crowdfunding platform official website [13] (as of 07 May 2022).

projects (82.43 % and 77.91 % success rate of projects in these areas, respectively).

Since the launch of the Ulule crowdfunding platform, approximately €5 million has been raised to fund approximately 520 manufacturing (technology) projects. The success rate of these fundraising projects is relatively low – only 46.85 %. This means that private investors are willing to support no more than half of the technological projects announced on the crowdfunding platform with their financial contribution (see Table 4).

Overall, several dozen crowdfunding platforms are active in France and other European countries. Some of the existing platforms are thematic, for example, supporting only projects related to music, or only paying for university education for young people.

For example, in Germany there is a *Startnext* crowdfunding platform, which operates on a voluntary commission, i.e. the users of this platform decide by themselves what percentage of the collected funds to pay to the platform as an intermediary for the financial resources collection. So, during its work period Startnext platform received more than 1.9 million contributions for the total of €132.40 million for financing more than 13.38 thousand different projects [14, p. 1].

One of the oldest and successfully operating UK crowdfunding platforms is CrowdFunder, founded in 2011. Since its inception more than £250 million have been raised to finance more than 300 thousand different projects [15, p. 1].

Currently, the CrowdFunder platform offers three crowdfunding options [15, p. 1]:

- 1) donations "ask your supporters to donate money to a cause you care about";
- 2) rewards "offer your supporters a reward in exchange for their contributions";
- 3) community shares "work with your supporters to obtain something in your community".

When funding various business projects, CrowdFunder receives its commission of 5 % (plus value-added tax) on the amount of funds raised, as well as a transaction fee. CrowdFunder does not charge any fees when funding any non-profit project through the crowdfunding platform, i.e. it operates on a charitable basis. At the same time, all projects are offered access to free training and support on how to present and promote their project and raise funds for its implementation [16, p. 1].

FinTech application features in the lending and investment practice in the Russian Federation

The state of the crowdfunding market in Russia is certainly inferior to the global level. Recently, however, it has been actively developing, as many investors are closely following the development of the global economy and are interested in innovative ways to invest their money with maximum efficiency.

The very first Internet platform in Russia, as well as a social network similar to a crowdfunding platform was kroogi.com ("Circles"), created in 2007. Within this community, any digital content could be exchanged. All the site registered users could download a musical or artistic work they liked for free, or pay as much as they wanted [17, p. 1]. At the same time "Circles" sets its commission of 15 % of the money received. As of April 2022, the website kroogi.com no longer works in Russia.

According to the current legislation of the Russian Federation³ [18, p. 19], all crowdfunding platforms must be included in the "Central Bank of Russia Register of the investment platforms operators" (hereinafter – the Central Bank Register).

The Central Bank Register included:

- 42 investment platforms in the Central Federal District, or 70 % of all companies registered in the Central Bank Register, 38 of which are in Moscow⁴ (or 63.33 % of the total number of investment platforms);
- 6 investment platforms (or 10 % of the total number) each in the Volga and Northwestern
 Federal Districts (St. Petersburg);
- 3 investment platforms in the Ural Federal
 District (which is 5 % of the total number of investment platforms);

³ Federal Law No. 259-FZ, dated 2 Aug. 2019, "On raising capital using investment platforms and on introducing amendments to certain legislative acts of the Russian Federation". URL: https://base.garant.ru/72362156/ (accessed: 01.06.2022).

⁴ However, on 27 December 2021, one of the investment platforms registered in Moscow was excluded from the Central Bank Register. As a result, only 59 investment platforms remained in the Central Bank Register, notably 41 in the Central Federal District, 37 of which were in Moscow [19, p. 1].

Table 5

The structure of registered investment platforms by federal districts and cities of the Russian Federation by the dates of their registration in the Central Bank Register

Federal	Cities and	Russian	Regis-					Total	Over	Strue	cture, %
Districts*	towns**	Federation regions	tration year	Q1	Q2	Q3	Q4	for year	Over- all	Cities	Federal Districts
			2020	a)te	3	4	6	13			
	Moscow	Moscow	2021	10	5	1	5	21	38	63.33	
CFD (42)***			2022	4	_	;	(¢	4			70.00
CFD (42)***	Vladimir	Vladimir Oblast	2020	ojc	-	1	_	1	1	1.67	70.00
	Rostov-on-Don	Rostov Oblast	2020	oje	_	1	1	2	2	3.33	
	Saburovo village	Moscow Oblast	2022	1	-	;	(4	1	1	1.67	
NFD	Saint Petersburg	Saint Petersburg	2021	4	1	1	_	6	6	10.00	10.00
	Krasnodar	Krasnodar Krai	2022	1	-	:	(te	1	1	1.66	
SFD	Simferopol	The Republic of Crimea	2020	**	_	_	1	1	1	1.67	3.33
	T_1,1	The Udmurt	2021	-	_	1	_	1	0	7 77	
	Izhevsk	Republic	2022	-	1	:	(te	1	2	3.33	
	Perm	Perm Krai	2021	-	_	_	1	1	1	1.66	
VFD	Sterlitamak	Bashkortostan Republic	2022	_	1	3	ţe	1	1	1.67	10.00
	Ulyanovsk	Ulyanovsk Oblast	2021	-	_	_	1	1	1	1.67	
	Cheboksary	Chuvash Republic	2022	1	_	:	(c	1	1	1.67	
	Yekaterinburg	Crondlevel Oblect	2021	1	_	_	_	1	1	1.67	
UFD	Nizhny Tagil	Sverdlovsk Oblast	2020	olic	_	_	1	1	1	1.66	5.00
	Tyumen	Tyumen Oblast	2020	oje	_	_	1	1	1	1.67	
SibFD	Novokuznetsk	Kemerovo Oblast	2020	o¦c	_	1	_	1	1	1.67	1.67

^{*} CFD – Central Federal District, NFD – Northwestern Federal District, SFD – Southern Federal District, VFD – Volga Federal District, UFD – Ural Federal District, SibFD – Siberian Federal District.

Note. "Central Bank Register of the investment platforms operators" [19] in the 1st quarter of 2020; the sign "*" means that there are no data for that period, as the Central Bank Register was created in the 2^{nd} quarter of 2020, and there are no data for the 3^{rd} and 4^{th} quarters of 2022 either. As of 06 May 2022, there were 60 investment platforms registered in the above Central Bank Register; the number 42, sign "***" – means that there are 42 crowdfunding platforms in the CFD.

Source: compiled by the authors based on the data of the "Central Bank of Russia Register of the investment platforms operators" as of 06 May 2022 [19].

^{**} Cities and towns are presented in alphabetical order by federal district, except for Moscow.

– 2 and 1 investment platforms in the Southern and Siberian Federal Districts, respectively (accounting for 3.33 % and 1.67 %, respectively, of the total number of investment platforms).

As of 06 May 2022, no investment platforms were registered in the North Caucasian and Far Eastern Federal Districts.

The authors analyzed the activities of all companies registered in the Central Bank's register as investment platforms on the basis of actual data presented on their official websites, including public financial statements for the last financial year, as well as the "Annual Reports of the Investment Platform Operator on the Results of the Investment Attraction Organization Activities" for 2021⁵ (hereinafter – "IIP Annual Reports").

In general, it can be emphasized that only a half of the companies, registered in the Central Bank Register in 2021 carried out more or less successful financial and economic activity as an investment platform operator, having organized the financial resources attraction at least for one investment project.

In particular, 4 companies specified in the Central Bank Register⁶, are in fact only registrars of shareholders' registers and did not carry out crowdfunding activities in 2021. No IIP annual reports for 2021 are available for the 12 companies that started as investment platforms at the end of 2021 or 2022. Thirteen companies suffered significant unfunded losses from their activities in 2021 or cannot be considered effective crowdfunding platforms.

⁶ Independent Registry Company R.O.S.T. JSC (AO) URL: www.rrost.ru; Reestr JSC (AO) URL: https://www.aoreestr.ru; Noviy registrator JSC (AO) URL: www.newreg.ru; DRAGA (Gas industry shareholders registrar) JSC (AO) URL: www.draga.ru

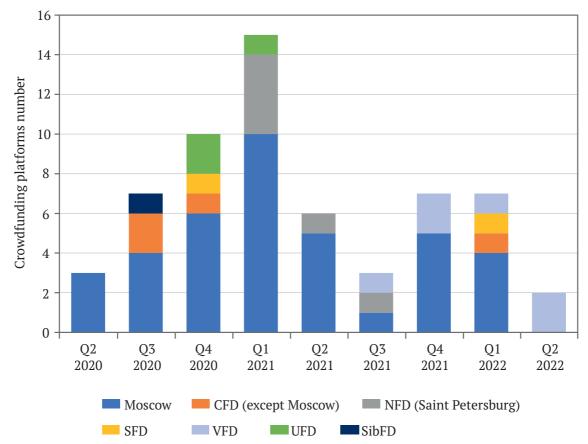


Fig. 1. Dynamics of registration of companies as "investment platforms" in the Russian Federation for the period from Q2 2020 to Q2 2022, according to data from the Register of the Central Bank as of 05 June 2022

⁵ According to the current Russian legislation, this report must be made publicly available on the Internet on the crowdfunding company official website [18, p. 15].

In the Russian Federation, it is thus possible to analyze the results of only 30 investment platforms that were active in 2021 and attracted a total of $\mathbb{P}9.93$ billion in private investments. However, at the same time, 14 companies have unfulfilled (past-due) obligations on the part of those attracting investments at the end of the financial year (**Fig. 2**).

It should be emphasized that currently only 16 companies in the Russian Federation are more attractive to retail investors in terms of minimizing their financial risks compared to other crowdfunding platforms (**Table 6**).

On the whole, 16 relatively reliable crowd-funding companies in Russia attracted about ₱2 billion of investments from 854 investors for 1,037 different projects in 2021. At the same time, the average amount of investment per investor was about ₱2.36 million, although at half of the investment sites it significantly exceeded the

specified amount (for example, for VTB Registrar JSC (AO) it was ₹29.12 million).

Thus, the experience of Russian crowdfunding significantly differs from the European model in terms of investment parameters. Thus, the average contribution on the European platform Ulile ranged from €42 to €85, which, given the ruble to euro exchange rate of $P71^7$ was from P3,000 to P6,000. And the average contribution per investor on Russian platforms ranged from P60,000 rubles (Penenza JSC (AO) to much more substantial sums, reaching hundreds of thousands and even tens of millions of rubles.

⁸ May 2022 – ₽71.0963 to €1;

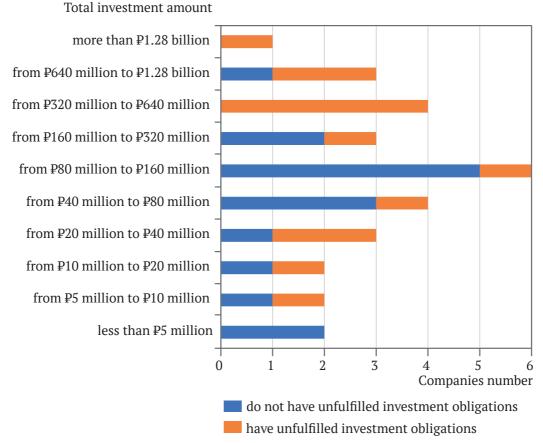


Fig. 2. Structure of crowdfunding companies in the Russian Federation depending on the volume of raised investments in 2021

Source: compiled by the authors based on analytical procedures based on the results of the analysis of activities 30 crowdfunding sites in the Russian Federation in 2021

⁷ "Conventional exchange rate" (for example calculations). The official Central Bank of Russia euro exchange rate to the ruble on the following dates:

⁵ May 2022 – ₽72.7815 to €1;

⁶ May 2022 – ₽70.0662 to €1;

⁷ May 2022 – ₽71.0963 to €1;

Analysis of the activities of crowdfunding companies in the Russian Federation that have no outstanding investment commitments at the end of the financial year, based on data from their IIP annual reports for 2021

	מווב ווווט	tile ilitaticiai yeat, based on tata moin tilen iir ainitai reports for 2021	ata mom men n	r amnan repons r	01 2021		
Investment platform name (brand)	Registration place	Official website	Investment raised total amount, P million	Investment projects number	Average investment per project, Puillion	Investors number	Average investment of an investor, P million
VTB Registrar JSC (AO)	Moscow	www.vtbreg.com	68.869	9	116.48	24	29.12
Starttrek LLC (000)	Moscow	https://rounds.ru/	295.28	7	42.18	111	2.66
Invest Go LLC (000)	Moscow	www.investgo.ru	186.37	42	4.44	25	7.45
Incrowd LLC (000)	Moscow	https://incrowd.ru/	117.20	9	19.53	11	10.65
Simple Estate LLC (000)	Moscow	www.simpleestate.ru	114.99	2	57.50	34	3.38
Specialized registrar KOMPAS (Investment Kompass) JSC (AO)	Novokuznetsk	www.in-ko.ru	114.27	33	38.09	29	3.94
Lendly LLC (000)	Saint Petersburg	https://lendly.ru	108.65	21	5.17	141	0.77
StRizh (StRizhInvest) LLC (OOO)	Izhevsk	www.strizhinvest.ru	100.72	16	6.51	32	2.88
Investori LLC (000)	Saint Petersburg	www.investore.club	77.27	822	0.94	91	0.85
STATUS (Status-Invest) JSC (AO)	Moscow	www.invest.rostatus. ru	73.86	4	18.46	25	2.95
TNEDENGI.RU LLC (000)	Moscow	www.thedengi.ru	53.80	25	2.15	63	0.85
Pierce. Operator of direct investments LLC (000)	Moscow	www.peers.money	39.00	11	3.55	7	5.57
Co Fi LLC (000)	Moscow	www.cofi.ru	18.09	16	1.13	144	0.13
Penenza JSC (AO)	Moscow	www.penenza.ru	5.85	41	143	105	90.0
Close Horizons - Investment Platform LLC (OOO)	Moscow	www.nhip.ru	4.45	8	0.56	23	1.48
National Investment Platform LLC (OOO)	Moscow	http://niprf.ru/	0.40	1	0.40	1	0.40
Total (average estimates):			2,014.09	1,037	1.94 (mean value)	854	2.36 (mean value)
Note The list of companies is presented in descending order of pusiness size	resented in descend	ing order of business size	a				

Note. The list of companies is presented in descending order of business size.

Source: compiled by the authors based on an analysis of actual crowdfunding company data from their 2021 IIP Annual Reports.

Russian legislation on crowdfunding development

The entry into legal force of the Federal Law No.259-FZ of 02 August 2019 "On attracting investments using investment platforms and on amendments to certain legislative acts of the Russian Federation" from 01 January 2020 defined the legal field for crowdfunding activities in Russia, describing all requirements for the participants of the investment platform, the order of interaction of all persons carrying out their business operations through transactions through investment platforms.

In the "Development strategy of small and medium entrepreneurship in the Russian Federation for the period until 2030" approved by the Order of the Government of the Russian Federation No.1083-r from 02 June 2016 (as amended on 30 March 2018) [18, p. 17], crowdfunding is considered as a promising source of financing of small and medium entrepreneurship.

The expected reaction to the development of national legislation was the appearance of publications on "the need for further scientific understanding and exploration of the legal categories and relationships in crowdfunding" [20, c. 14].

The authors support the idea of the usefulness of objective economic calculations in the context of evaluating the financial risks of potential private investors involved in the crowdfunding process, as well as evaluating the economic efficiency of all lending and investment processes using modern financial technologies, for which it is necessary to develop appropriate analytical tools.

Conclusion

Financial innovation in lending and investment is associated with the concept of "crowdfunding" – a mechanism for raising funds (loans) from numerous small investors for all kinds of

purposes, from supporting start-ups, developing existing businesses, product implementation to social and charitable events.

Globally, seven types of crowdfunding are actively used: from private donations to profit sharing and debt securities.

The five largest U.S. crowdfunding platforms have raised more than \$18.2 billion in funding for various projects, including technology startups, since their inception.

It should be emphasized that current, accessible and transparent information on each crowdfunding project, which is available on the major foreign investment platforms sites (*Ulule*, *CrowdFunder*, etc.), is also necessary for Russian business.

Timely analyses of the crowdfunding market will undoubtedly be useful for potential private investors in the Russian Federation, because at the end of 2021, the activity of many domestic investment platforms was unprofitable or not effective enough due to unfulfilled financial obligations at the end of the financial year.

It should be emphasized that only 8 Russian crowdfunding companies were able to attract investments for more than P100 million in 2021. At that, the average amount of contributions per investor ranged from P770,000 to P29.12 million.

The crowdfunding market in Russia is thus at a certain stage of development (due to the adoption of an appropriate legal framework), but it differs fundamentally from the Western crowdfunding market in terms of the size of an individual investor's contribution, transparency and financial reliability of investments.

In general, we can expect certain prospects for the development of crowdfunding in the Russian Federation in the third decade of the 21st century, as the ideas of collective financing of small and medium-sized enterprises are quite actively supported by the Russian government.

References

- 1. Botsman R., Rogers R. What's mine is yours: the rise of collaborative consumption. USA: Harper Collins; 2010. 304 p.
- 2. Anikin A.V., ed. English-Russian dictionary of economics and finance St. Petersburg: Ekonomicheskaya shkola; 1993. 589 p. (In Russ.)
- 3. Letter of the Ministry of Finance of the Russian Federation and the Federal Tax Service of the Russian Federation of November 25, 2016 No. SD-4-3/22415@ in

response to a question about income tax on gratuitous receipt of property (money) through crowdfunding. December 20, 2016. (In Russ.). URL: https://www.klerk.ru/doc/454883/ (accessed on 20.04.2022).

- 4. Crowdfunding explained. An official website of the European Union. URL: https://ec.europa.eu/growth/access-finance/guide-crowdfunding/what-crowdfunding/crowdfunding-explained_en (accessed on 20.04.2022).
- 5. Reshetnikova M. API in simple terms: what is it and why is it needed. RBK. Trends. 09.24.2021. (In Russ.). URL: https://trends.rbc.ru/trends/industry/614b2ab e9a79476f5b552e0e (accessed on 21.04.2022).
- 6. Chishti S., Janos B. Fintech. The Financial technology handbook for investors, entrepreneurs and visionaries. John Wiley & Sons Ltd.; 2016.342 p. URL: https://znanium.com/catalog/product/1003177 (accessed on 22.04.2022). (Russ. Transl.: Barberis Ya., Chishchti S. Fintekh. Putevoditel' po vazhneishim finansovym tekhnologiyam. Moscow: Al'pina-Pablisher; 2016. 342 p. URL: https://www.angellist.com/)
- 7. Invest deal-by-deal in world-changing startups. AngelList Venture. URL: https://www.kickstarter.com/ (accessed on 22.04.2022).
- 8. Creative work shows us what's possible. Help fund it here. URL: https://www.kickstarter.com/ (accessed on 22.04.2022).
- 9. Business Croudfunding. Now anyone can fund your business. Raise capital. URL: https://www.fundable.com/ (accessed on 23.04.2022).
 - 10. EquityNet. URL: https://www.equitynet.com/ (accessed on 22.04.2022).
- 11. Join the movement to fix capitalism. URL: https://wefunder.com/pbc (accessed on 23.04.2022).
- 12. EquityNet Releases New Crowdfunding Statistics for 2021. URL: https://www.yahoo.com/now/equitynet-releases-crowdfunding-statistics-2021-144500517. html?guccounter=1 (accessed on 22.04.2022).
- 13. Ulule statistics. URL: https://www.ulule.com/stats/ (accessed on 07.05.2022).
- 14. Fang heute deine Crowdfundingreise an und starte einen Projektentwurf. URL: https://www.startnext.com/Starten.html (accessed on 24.04.2022).
- 15. How crowdfunding works. URL: https://www.crowdfunder.co.uk/about-us (accessed on 25.04.2022).
- 16. Raise funds for your startup or existing business here. URL: https://www.crowdfunder.co.uk/start-business (accessed on 25.04.2022).
- 17. The official community "Kroogi" in the social network "VKontakte". (In Russ.). URL: https://vk.com/kroogi (accessed on 26.04.2022).
- 18. Support for small and medium-sized businesses, including the Register of Investment Platforms. Official website of the Bank of Russia. (In Russ.). URL: http://www.cbr.ru/develop/msp/#highlight=краудфандинг (accessed on 07.05.2022).
- 19. Order of the Government of the Russian Federation of June 2,2016 No. 1083-r (as amended on March 30, 2018) "On the strategy for the development of small and medium enterprises in the Russian Federation for the period up to 2030 and the action plan ("road map") for its implementation". (In Russ.). https://base.garant.ru/71418202/
- 20. Soyfer T. Civil law regulation of crowdfunding in Russia: the status and prospects. *Civil Law.* 2020;(1):11–15. (In Russ.). https://doi.org/10.18572/2070-2140-2020-1-11-15

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