

Difficulties in the implementation of crowd projects: Russian features

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Abstract — The article describes the difficulties and problems arising from the implementation of crowd projects in Russian conditions. The aim of the work is to describe the practice of crowdsourcing, highlighting the difficulties of implementing crowd projects, formulating possible ways to overcome them. In the framework of this study, general theoretical methods were used to process and systematize theoretical sources related to the issue under study, a survey method that allows obtaining information about the subject of the study from crowd project participants (organizers and performers). The application of these methods allowed us to analyze the practice of using crowdsourcing technology in Russian practice, to formulate the main problems faced by crowd workers in this area and draw conclusions about the current crowdsourcing problems at the present stage, which is the main result of this work. In addition, a comparison is made of the results of the study with a similar study conducted in Malaysia, conclusions are drawn regarding the problems and prospects of the development of crowdsourcing in Russia.

Keywords — *crowdsourcing, crowd projects, organizer, executor, difficulties.*

I. INTRODUCTION

Currently, fundamental changes are taking place in the labor market, the basis of which is digital globalization. This process is accompanied by the spread of digital technologies, the transformation of business models and models of labor relations, leading to significant social, organizational and economic consequences [1]. In particular, this is manifested in the development and dissemination of crowdsourcing technologies, which are a special form of joint peer-to-peer production [2, 3].

Crowdsourcing in the modern economy is becoming an effective practice based on the participatory nature of Web 2.0. Crowdsourcing technology is focused on the use of so-called “Wisdom of the crowd”, which allows the use of collective intelligence to solve complex problems affecting the interests of various categories of people [4, 5]. Crowdsourcing technology is actively used in business, state and municipal government, the activities of non-profit organizations, and education [6, 7].

Currently, crowdsourcing as a technology is widespread and has shown its effectiveness in Europe, the USA, Australia, etc. In Russia, the beginning of the use of crowdsourcing technologies, according to L. Lapidus, it can be considered in 2014, when at the initiative of the Government of Moscow the state project “Active Citizen” was developed, designed to conduct open electronic referenda [8]. Further widespread crowdsourcing is due to its potential capabilities related to increasing the efficiency of interaction by involving consumers in the production of goods, identifying social problems and finding solutions to them, providing mutually beneficial assistance in resolving generally significant issues.

According to researchers, at present, there are approximately 380 crowdsourcing resources in Russia, implementing approximately 40,000 crowd projects annually. The most attractive areas for crowd projects in our country are IT-technologies, medicine, state and municipal government, business start-ups. According to estimates of the Oxford Internet Institute dealing with problems of online employment, in Russia the largest number of online projects are implemented in the areas of software and technology development, creative and multimedia, sales and marketing activities [9]. Among the Russian leading crowdsourcing companies, Sberbank of Russia OJSC, Rostelecom PJSC, Russian Railways OJSC, Rosatom State Corporation, which implement regular crowd projects of various kinds, stand out.

The development of crowdsourcing technology and the expansion of the number of crowd projects in Russia are fraught with the problems and difficulties faced by participants in crowd projects. In this regard, it is of interest to study the problems arising from the implementation of crowd projects both from the standpoint of the organizers of such projects and from the standpoint of the performers of the work within their framework.

II. METHODOLOGY

The study of difficulties in the implementation of crowd projects in Russian conditions was carried out using the methods of systematization and structuring of publications of Russian and foreign researchers on this issue. Analysis of the

practice of implementing crowd projects was carried out based on the information content of leading Russian crowd platforms available on the Internet (MOFILM, SAP [10, 11]), research by Russian authors covering theoretical aspects and describing the practice of implementing crowd projects in companies [12, 13, 14]. To clarify and evaluate the problems that arise when implementing crowd projects in Russian practice, a study was conducted of the organizers and executors of crowd projects with experience in organizing / participating in at least two crowd projects. The survey was conducted in June 2019. The survey was conducted online, a Google form was sent to the survey participants, a total of 68 people took part in the survey (26 of which were organizers of crowd projects and 42 people were executors of crowd projects). Among the respondents, 76% were men and 24% women.

The questionnaire proposed to the respondents included the following questions:

1. What difficulties arise when organizing a crowd project with the organizers of crowd projects?
2. What are the difficulties that performers of crowdfunding projects face?

III. RESULTS

At the beginning of the study, we collected and systematized the theoretical foundations of difficulties and errors in the implementation of crowdsourcing projects. In the process of crowdsourcing activities, difficulties often arise, which ultimately lead to a decrease in the effectiveness of such activities, leveling the effect of crowd wisdom and, ultimately, to the failure of the entire project.

Researchers of crowdsourcing technology are the following errors in organizing a crowdfunding project:

1. Incorrect decomposition of the macro task into the micro task, ignoring the organizational aspects associated with the difficulties of involving the participants, the distribution of work, and monitoring the results of the project [15].
2. Inattention to the quality of work of performers in a crowd project, for which there is a great temptation to use ready-made content or to perform work poorly. There are frequent cases when, for example, crowd workers provide poor-quality content by simply rewriting the text by automatically replacing one word, or by providing graphic content that infringes copyrights [16].
3. Manipulation during voting, which is especially typical for crowdsourcing projects of a competitive nature, where there is a material reward system. Therefore, it is important to design such a voting system where the likely impact of manipulation effects would be minimized.
4. The so-called "Matthew effect" is a phenomenon of uneven distribution of advantages, in which the side that already possesses them continues to accumulate and increase them, while the other, initially limited, is deprived even more and, therefore, has less chances of continued success. Under the effect of the Matthew effect, the first five ideas in terms of popularity will remain at the top of the rating, while the gap in the rating with other ideas only widens. This is due to the fact that people are accustomed to reading the most popular, therefore, attention is not usually paid to unpopular ideas

regardless of their quality. The introduction of such a voting system will help solve this problem, where the user will work with a random selection of ideas on a certain topic, and the results of evaluating these ideas by other users will be hidden until their own evaluation [17].

5. The so-called "Sturgeon's Revelation", according to which 90% of what users come up with, will be informational garbage. As a result, the potential useful and necessary ideas account for only 10%, of which only a few will be truly innovative and useful crowdsourcing companies. It is useful here to introduce an automatic pre-filtering system, as well as grouping ideas (for example, by tags or keywords).

6. The organizer's ignorance of the crowd project of the target audience: the crowd to which he addresses. It is necessary to form a community based on the task or the specifics of a crowdsourcing company. For this, it is necessary to clearly define the skills of the project executor, to integrate screening mechanisms into your crowdsourcing project (for example, using a test of basic competencies necessary for the implementation of projects) [18].

7. Neglect of efforts to attract crowds, i.e. stable traffic of users who can take part in the project. In this case, it is necessary to describe the task in the most understandable and at the same time attractive words. Next, you need to make sure that the project is visible on the Internet (for example, look at the position in the line of search engines for certain queries), and also check the clarity and uniqueness of the description of the project's tasks for the crowd [19].

8. Demotivation of crowd workers. This problem arises when the ideas of the Turker, the solutions proposed by him, are not popular and go unnoticed by the community. As a result, he either leaves for other sites, or completely stops trying to participate in crowdsourcing projects. This problem can be solved by a competent reward system, as well as correct feedback, which will allow the Turker to either refine his idea or abandon it in view of the realization of its failure [20].

Now we turn to the results of a study of the difficulties of implementing crowd projects in Russian practice.

The distribution of survey participants by type of crowd projects was as follows (respondents could choose several answer options) (Figure 1).

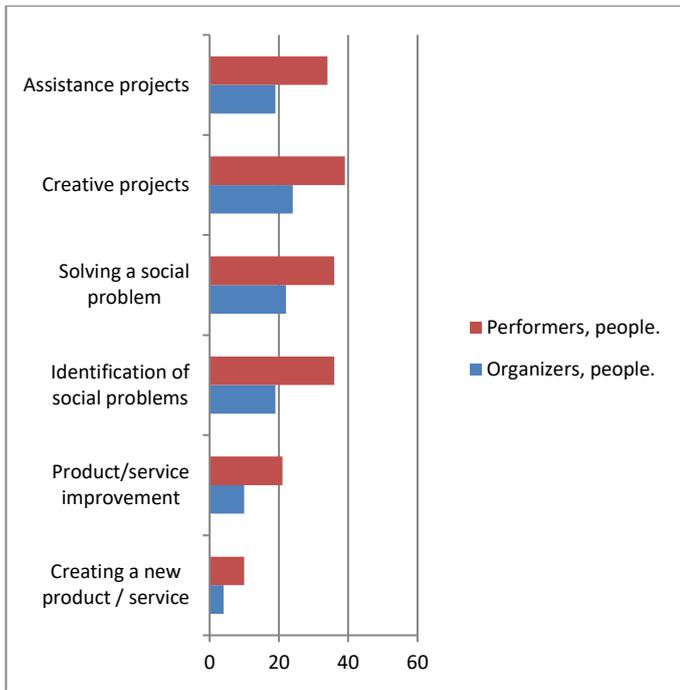


Fig 1. Distribution of crowd project participants by type of project

The data obtained show that Russian crowd projects are more common in the field of social problems, the creation of joint creative products and assistance, rather than in the field of improving goods and services.

It was also important to identify the experience of respondents in crowdfunding projects. To answer the survey participants were asked to choose the number of crowd projects for which they received a reward. Characteristics of respondents by experience in participating in crowd projects are as follows (Figure 2).

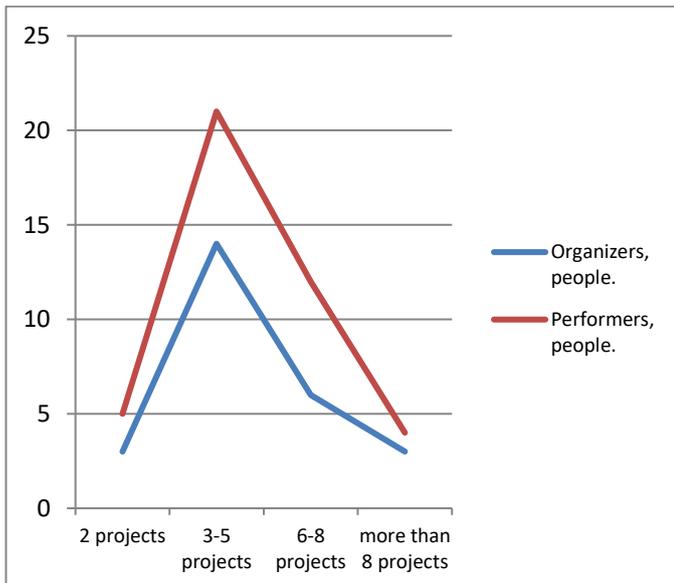


Fig. 2. Distribution of participants by the number of completed and paid projects

The largest number of workers in Russian crowd projects have relatively little experience in their implementation: most of the surveyed organizers and executors of crowdfunding projects have 3-5 projects in their “baggage”, which is

associated with a rather short period of spreading crowdsourcing technology in our country. Only 21% of the total number of respondents, took part in crowd projects that paid for the work performed.

Further, the organizers of crowd projects were asked to evaluate the difficulties that arise in their implementation of crowd projects. Based on an analysis of the sources, we compiled a list of difficulties of crowd projects that take into account the Russian specifics of this type of activity. Among the difficulties were formulated the following:

1. Difficulties associated with the legal regulation of crowdsourcing activities, ensuring the rights and obligations of crowd project participants);
2. Difficulties associated with establishing the optimal amount of remuneration for a specific task, the value of which should provide the proper motivation for the performer. In addition, many crowd projects have no reward;
3. Lack of professional competence of the organizer and the performers, leading to errors (lack of consideration of the specifics of the industry and the scope of the project, incorrect statement / separation of the tasks of the project, etc.);
4. The presence of manipulation during the voting, when the executors perform the task inadequately, or do not perform it at all;
5. The presence of restrictions (temporary, financial, etc., which do not allow the high-quality creation and processing of a project);
6. Problems of selecting, filtering ideas and controlling results;
7. The limited popularity of the theme of the project, which can lead to the impossibility of its effective implementation through crowdsourcing.

The results of the assessments of difficulties from the standpoint of the organizers of crowd projects, expressed in averaged assessments on a ten-point scale, are presented in Figure 3.

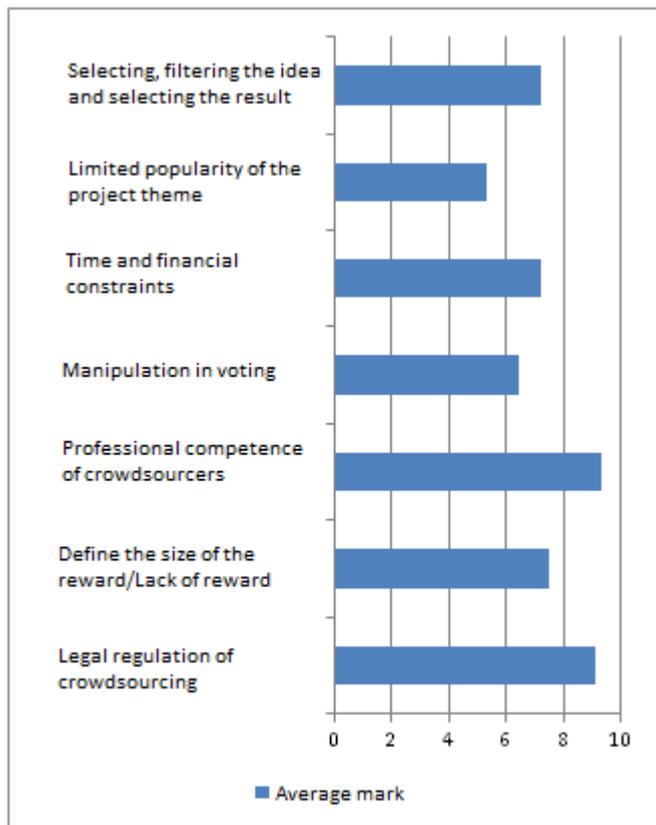


Fig 3. Difficulties of crowd projects from the perspective of the organizers

Thus, the data obtained allow us to state that the greatest difficulties for the organizers of crowd projects cause problems associated with the legal regulation of the activities of crowd workers (average score is 9.1) and their professional competence (average score is 9.3). The organizers of crowd projects are faced with the fact that in order to perform more complex and responsible tasks, performers need access to internal corporate information, and the task execution by a group of people “from the outside” contains certain risks associated with the dissemination of this information. Closely connected with this factor is the question of assessing the competence of performers, since it is almost impossible to verify it.

Respondents rated the time and financial constraints, problems with selecting and filtering ideas and determining the optimal size of remuneration less significant (average scores: 7.3, 7.3 and 7.5, respectively). If the presence of time and financial constraints is a key factor for the implementation of any project, then the problems with the selection and filtering of ideas must be analyzed separately. When implementing crowd-projects, companies are faced with the inability to quickly and accurately select and evaluate all incoming ideas. So, in [13] an example of Sberbank on the platform "Exchange of ideas" in 2009–2011 is given. 86,000 ideas were registered, 20% of which were still awaiting consideration by the beginning of 2013. In total, 7,500 ideas were introduced in Sberbank during this period, while 80% of them expected to be implemented for more than 1 year.

Voting manipulations were estimated by respondents even lower (average score is 6.4), due to the fact that modern crowd site interfaces can reduce the "Matthew effect" due to a

random set of ideas and the lack of visualization of the results of crowd assessments. The limited popularity of the project topic received the lowest ratings in a number of difficulties of crowd projects (the average score is 5.3) since this obstacle is leveled by the relevant target audience at the stage of designing the crowd project.

Analyzing the difficulties of crowd projects from the perspective of performers, we proposed the following questions:

1. Difficulties associated with the registration of labor relations (lack of an official labor contract)
2. Difficulties associated with the amount of remuneration, which may not correspond to the content of the work and not lead to its high-quality performance;
3. Changing the contents of the task in the process of its implementation and its criteria by the organizer of the crowd project
4. Insufficient number of crowd projects in their professional field, which forces them to take part in projects from related fields and spend more time and effort on their implementation;
5. Combining work in crowd projects with the main labor activity, which leads to time constraints.

The results of assessments of difficulties from the standpoint of executors of crowd projects, expressed in averaged assessments on a ten-point scale, are shown in Figure 4.

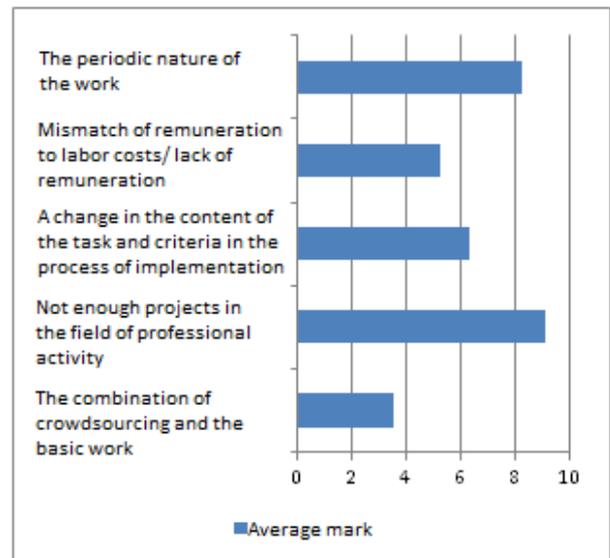


Fig. 4. Difficulties of crowd projects from the perspective of performers

An assessment of the difficulties of performers involved in crowd projects can be interpreted as follows. According to the results of the survey, the most significant difficulty for executors of work in crowd projects is the periodic nature of the work (average score is 8.2) and the insufficient number of crowd projects related to professional activities (average score is 9.1). Since the crowdsourcing market in Russia is under development, the overwhelming majority of crowd project participants are people with regular official employment, for whom the main result of participating in a crowd project is the product of a joint venture, the opportunity to try one’s strength in a new business, participation in an event or the development

of relevant competencies [8]. Combining the main work with participation in crowd projects, the performers note that participation in social, environmental, charitable, and other crowdfunding projects most often does not provide for remuneration, does not significantly increase their professional competence, therefore such participation takes on the features of some volunteering and not considered as serious and responsible work. At the same time, the combination of the main labor activity and participation in crowd projects is not a significant problem (the average score was 3.5), since the tasks are performed remotely, in free time, at the request of the participant. For the same reason, the inappropriate amount of remuneration for work or its absence does not present a significant problem (average score is 5.2). Only 36% of the respondents experienced a change in the content of the assignment and criteria for evaluating the result, however, the risk of such behavior of the organizer of the crowd project was rated quite high by the survey participants, its average score was 6.3.

IV. DISCUSSION OF RESULTS

Discussing the results obtained in the study, we can compare them with the results obtained by researchers of crowdsourcing practice [1, 16, 18, 19]. Analyzing the results of the survey, the researchers identified several widespread difficulties in the implementation of crowdsourcing activities both from the crowdsourcing organization and from the side of Turkers:

1) *A limited number of proposed crowdsourcing projects, crowdsourcing work.* The reason for this is a rather limited number of organizations that would like to participate in crowd sourcing and organize this type of activity. The main concerns of organizations in relation to crowdsourcing are, firstly, in doubts about the confidentiality of data, especially those that were obtained during the implementation of the crowdsourcing project or were its result. Organizations fear that in a crowd with an undetermined number of participants there will always be someone who somehow divulges confidential information.

2) *A limited number of crowd workers.* The difficulties involved in participating in a crowdsourcing project can be associated with many reasons. This could be a trust issue, protection issues (especially labor rights and intellectual property), privacy issues, wage issues. A small number of crowd workers on the platform, in turn, can cause new difficulties.

3) *Lack of necessary skills among crowd workers.* Most crowdsourcing projects do not require some specific specialization or academic degree from Turkers. Instead, these projects require participants to have skills relevant to the work being done. A good practice in this case will be the organization of the process of continuous training of local workers in certain skills and professional development.

4) *Crowd workers' perception of crowdsourcing organizations and crowdsourcing platforms.* During the survey, many respondents noted that they are often afraid that, involving themselves in crowdsourcing activities, there is a great chance to run into a fictitious company, for which a crowdsourcing project is just part of a fraudulent scheme. In addition, crowd workers are often worried that the information they provide during the implementation of crowd sourcing

activities can then be abused. Hence, it is important to formally establish in the rules of the site that the point that all user personal data will be protected and confidential.

5) *Security of the payment mechanism.* Crowd workers are often not sure that they will receive the promised remuneration for their activities, while crowdsourcing companies are not always willing to pay for the "unskilled labor" that, in their opinion, is carried out by the crowd workers. This issue can be resolved through the use of the Escrow fund, a special type of trust account that is widely used in international practice for conducting secure trading operations. Money from this account can only be received if certain conditions are met (for example, the completion of a certain amount of work), while the organization that posted the funds in this account also cannot simply take and withdraw it if the work was done by the Turker. In this way, guarantees are provided for both parties.

V. CONCLUSION

The result of the study was a number of conclusions that are important in terms of the development of crowdsourcing in our country. The expansion of the use of this technology in Russia requires the formation of an appropriate regulatory framework governing labor relations between the organizer of crowd projects and performers. The creation of such a base will allow attracting professionals who are ready to take regular part in such activities for worthy remuneration to participate in crowd projects, and will increase the motivation of crowd workers. The contribution of the study is to clarify the characteristics of crowd workers who organize crowd projects and participate in their implementation. The study demonstrates an assessment of factors that are difficult to participate in crowd projects, and which need to be addressed when using crowdsourcing technologies. The study also makes it clear that it affects the motivation of executors of crowdfunding projects. The study has prospects associated with a deeper study of the motivation of executors of crowd projects, a study of the organization of labor of crowd workers, the identification of effective mechanisms for combining participation in crowd projects with the main professional activity.

References

- [1] Vukovic M., Bartolini C. 2010. First international enterprise crowdsourcing workshop. In: Daniel F., Facca F. M. (eds). *Current Trends in Web Engineering — ICWE 2010 Workshop Proceedings*
- [2] R. Vakulenko, N. Tyumina, Ye. Potapova, L. Proskulikova *Analiz organizatsionno-tehnologicheskoy sredy sushchestvovaniya elektronnykh uslug// Vestnik Mininskogo universiteta No. 1-1. 2016 p.1*
- [3] Brabham D. C. 2008. Crowdsourcing as a model for problem solving: An introduction and cases. *Convergence* **14** (1): 75–90.
- [4] Dolzhenko R.A. 2012. Crowdsourcing — a new form of work organization in a commercial bank. *Menedzhment v Rossii i za rubezhom* (5): 98–104.
- [5] Howe J. *Crowdsourcing: Why the Power of the Crowd is Driving the Future of Business*. Three Rivers Press, 2009.
- [6] M.L. Gruzdeva, ZH.V. Smirnova, N.I. Tukenova *Primeneniye servisov seti internet pri obuchenii tekhnologii//Vestnik Mininskogo universiteta T: 6 No.: 1 (22) : 2018 p.8 <https://doi.org/10.26795/2307-1281-2018-6-1-8>*
- [7] Kuznetsov, Viktor P.; Garina, Ekaterina P.; Andryashina, Natalia S.; Romanovskaya, EV *Implementation of CALS Systems as a Condition of Information Economy's Formation in the Russian Production Practice MODELS OF MODERN INFORMATION ECONOMY:*

CONCEPTUAL CONTRADICTIONS AND PRACTICAL EXAMPLES

Pages: 99-114 Published: 2018

- [8] L.V. Lapidus, Yu.M. Polyakova Gignomika kak novaya sotsial'no-ekonomicheskaya model': razvitiye frilansinga i kraudsorsinga. Vestnik IE RAN. 2018. No. 6. P. 73-89.
- [9] L.V. Lapidus Kraudsorsing i kraudfanding. Marketingovoye prodvizheniye proyektov, produktsii i uslug //Vestnik Finansovogo universiteta. 2016.No. 4 (94).
- [10] MOFILM [Electronic resource]. – Access mode: URL: <http://mofilm.com> (Access date: 10/03/2019)
- [11] SAP [Electronic resource]. – Access mode: URL: <http://sap.com> (Access date: 10/03/2019)
- [12] Ye.V. Golubev Kraudsorsingovyy projekt kak sistema: neobkhodimyye elementy, ikh vzaimosvyaz', elementy i sposoby preodoleniya // Internet-zhurnal «Naukovedeniye». 2014. No. 5 (24).
- [13] R.A. Dolzhenko, A.V. Bakalenko Kraudsorsing kak instrument mobilizatsii intellektual'nykh resursov: opyt Sberbanka Rossii Russian Management Journal Russian Management Journal Tom 14, No. 3, 2016. P. 77–102
- [14] T.Ye. Lebedeva, M.P. Prokhorova Kraudsorsing: sushchnost', vidy, klyuchevyye sostavlyayushchiye dlya sovremennoy kompanii // Innovatsionnaya ekonomika: perspektivy razvitiya i sovershenstvovaniya. 2018. No. 5 (31). P. 75-80.
- [15] Jordann, Guillaume, Wei-Feng Tung. Crowdsourcing social network service for social enterprise innovation // Springer Science+Business Media New York. 2017
- [16] Haichao Zh, Dahui L., Wenhua H. Task Design, Motivation, and Participation in Crowdsourcing Contests // International Journal of Electronic Commerce. 2011. Vol. 15. Iss. 4. P. 57—88.
- [17] Shen, X-L, Lee, MKO & Cheung, CMK 2014, 'Exploring online social behavior in crowdsourcing communities: A relationship management perspective' Computers in Human Behavior, vol. 40, pp. 144-151. <https://doi.org/10.1016/j.chb.2014.08.006>
- [18] Domingo-Ferrer, Josep, Abeba Nigussie Turi, David Sanchez, Dritan Osmani. A co-utility approach to the mesh economy: the crowd-based business model // Springer-Verlag Berlin Heidelberg. 2016
- [19] Simmons J.P., Nelson L.D., Galak J., Frederick Sh. Intuitive Biases in Choice versus Estimation: Implications for the Wisdom of Crowds // Journal of Consumer Research. 2011. Vol. 38. Iss. 1. P. 1—15.
- [20] Yashin, S.N., Koshelev, E.V., Kuznetsov, V.P., Zakharova, Y.V., Ivanov, A.A. Contradictions in the motivation of top managers of the corporation by the method of economic added value (2019) Lecture Notes in Networks and Systems, 57, pp. 114-125.