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CROWDSOURCING INTEGRATION IN THE TOURISM INDUSTRY

Abstract. The article discusses the crowdsourcing integration in the tourism industry. The author considers advantages and disadvantages of using crowdsourcing techniques in tourism. The results of a study on the using crowdsourcing in the hospitality industry are presented, as well as possibilities and main barriers of crowdsourcing for the tourism industry development. The author makes conclusion about main directions of using crowdsourcing in tourism. The implementation of various crowdsourcing projects in the tourism sector has importance for attracting residents to the region.

Keywords: crowdsourcing, tourism, social technology, regional tourism, crowdfunding, crowdsourcing technology, innovation, sociological survey.

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ИНТЕГРАЦИЯ КРАУДСОРСИНГА В ИНДУСТРИЮ ТУРИЗМА

В статье рассматривается интеграция краудсорсинга в туристическую индустрию. Исследуются преимущества и недостатки использования методов краудсорсинга в туризме. Представлены результаты социологического исследования использования краудсорсинга в индустрии туризма, а также возможности и основные барьеры для внедрения краудсорсинга в туристическую индустрию. В качестве выводов выделены основные направления использования краудсорсинга в туризме. Обоснована важность привлечения жителей региона за счет реализации различных краудсорсинговых проектов в туристическую сферу.

Ключевые слова: краудсорсинг, туризм, социальные технологии, региональный туризм, краудфандинг, технологии краудсорсинга, инновации, социологический опрос.

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Introduction

Tourist attractiveness is one of the key factors in the competitiveness of the territory in the struggle for target groups of tourists. It is related to the state of tourism resources and infrastructure, as well as an analysis of existing and potential tourism supply and demand. To a large extent, it is shaped by the preferences of local residents, which depend on natural, historical, economic and other factors that determine the possibility of meeting the emerging tourist demand.

The relevance lies in the fact that the features of tourism development through the introduction of crowdsourcing have been identified, when the tourism sector can be improved through the use of the intellectual potential of citizens and with minimal costs. In the article, the author analyzes a unique crowdsourcing opportunity that allows the consumer to be included in the production of tourist services. Tourism projects that are implemented with the participation of the population are today more successful than government initiatives, as they allow the consumer to feel their own significance. Modern economic conditions have led to a crisis in the financing of the tourism industry, which makes it necessary for the subjects of this activity to look for new ways of organizing tourism, one of which is crowdfunding.

The introduction of crowdsourcing technology into the development of tourism, implemented through social networks and various dialogue Internet platforms, is dictated primarily by the establishment of a constructive dialogue between the government and the civil society, between consumers and producers of tourism services, in solving socially significant problems of the region through involvement in them «collective intelligence».

The right to vote and the illusion of participation in managerial decision-making, as well as the game of recognizing the inability to achieve the desired result without the help of citizens, are manipulative levers that are the driving force for collecting thousands of ideas and opinions.

The collection and processing of civil

initiatives significantly expands the horizons of managerial decision-making due to the massiveness of ideas and proposals of the interested civil society at minimal cost.

The purpose of the study is to identify the need to use crowdsourcing technology for the development of the tourism sector in the region, its prospects and features of implementation in the practice of regional management.

Methods

When analyzing and conducting the research, a complex of general scientific methods was used: analysis and synthesis, induction and deduction, ascent from the abstract to the concrete. When preparing the empirical study, the method of questionnaire survey of citizens was used. The works of domestic and foreign experts in the field of crowdsourcing and tourism were used as sources of information for the study. Also used were statistical data characterizing the development of the regions of the Central Federal District, regional and federal regulatory documents regulating the process of regional governance, publications in Russian and regional media devoted to the problem of crowdsourcing in tourism, the results of the author's sociological research "Sociological diagnosis of crowdsourcing in tourism", conducted by the method of a questionnaire survey of residents of the Belgorod region in 2020 (N = 100).

Results and discussion

Based on the results of the study, the author's definition was formed: crowdsourcing is a type of citizen activity interested in issues and problems of the tourism industry, based on participation through information technology, in which an individual, non-profit or commercial organization in the form of an open appeal offers a group of individuals, which may vary. according to the level of knowledge, composition and size, to complete a certain task on a voluntary basis without material reward [15].

The implementation of the task brings mutual benefit to the performer and the initiator. Users receive satisfaction for a specific need (recognition, self-esteem, or the development of

personal skills), while the initiator receives and will take advantage of what the users have done (the form of the final product depends on the type of task).

Several approaches exist because crowdsourcing tools have penetrated a wide variety of areas, and the practices associated with it are extremely diverse. The introduction of crowdsourcing projects at the regional level contributes to the functioning on a permanent basis of an inexhaustible source of idea generation, the formation of a civil expert community, ensuring the personnel reserve of managers and the socio-economic development of the region [11].

In this regard, the author conducted a sociological survey among the population of the region in order to determine the level of awareness of the phenomenon of crowdsourcing and the prospects for its use for the development of tourism in the region.

As a result of a study of citizens' opinions regarding the problem of introducing crowdsourcing technology in tourism, the following results were obtained. The survey involved 100 citizens of the Belgorod region, among them 30 men and 70 women. The age categories of the respondents are represented by the following groups: about a third of the respondents (34%) are between 18 and 29 years old. Another third of the respondents (28%) are between the ages of 30 and 39. 26% of respondents are from 40 to 49 years old. Every tenth survey participant (12%) is between 50 and 59 years old.

Thus, the population's awareness of the crowdsourcing phenomenon was determined: almost every fifth respondent (25%) believes that they have a fairly complete understanding of crowdsourcing, and about two-thirds of respondents (57%) have only a general idea about it. Every tenth respondent (18%) had not heard anything about such a phenomenon. Thus, the level of awareness of the respondents about the phenomenon of crowdsourcing is quite high (85% in total). There were no significant differences in gender, age and work experience of respondents on this issue.

About two-thirds of respondents (65%) believe that the introduction of crowdsourcing in the development of tourism in the region is expedient, only 12% believe that this is not the case. Almost every fifth respondent (23%) found it difficult to assess the feasibility of its implementation in the tourism sector. It should be noted that the men surveyed more often than women noted the need to form a civic culture of the population (53% against 21%), and women - the need to ensure citizens' participation in the management of society and the protection of group interests (44% against 24%); in addition, women more often note the importance of crowdsourcing as an effective way of introducing innovative technologies into state and municipal administration (57% versus 36%).

Citizens believe that the introduction of crowdsourcing in the development of tourism in the region is inappropriate, as reasons for the inexpediency of its implementation they note the impossibility of using a high-speed Internet access channel by all citizens (45%), passivity of citizens (37%) and lack of sufficient motivation from the population (18%).

Men more often than women mention passivity of citizens as a barrier to the introduction of crowdsourcing (58% versus 22%), but women, in turn, express solidarity with men, noting the factor of lack of sufficient motivation on the part of the population more often than men (37% against 21%).

About half of respondents (42%) are familiar with examples of successful crowdsourcing, and a third of respondents (33%) say that they have no such experience. Another 24% found it difficult to answer this question. Among successful examples, about two-thirds of the respondents (65%) noted the draft of the people's expertise, and every tenth mentioned the organization of voluntary participation in law enforcement (11%) and the implementation of projects (12%).

About half of the survey participants (49%) believe that favorable conditions have been created in Russia for interaction between citizens and government officials, and only every fifth

respondent (19%) believes that the appropriate conditions have not been created. About a third of the respondents (32%) found it difficult to answer this question.

On the whole, men assess the conditions for interaction between citizens and civil servants more positively: 81% of men assess it positively, and about a third of the women surveyed (31%) agree with them.

Among the reasons for the lack of favorable conditions for the introduction of crowdsourcing in tourism development, respondents note the lack of confidence of citizens in crowdsourcing projects (32%), lack of motivation on the part of citizens (25%), lack of the necessary legal framework (25%), insufficient awareness of the conduct of crowd projects in the region (24%).

Among the main reasons contributing to the introduction of crowdsourcing into the management system, the majority of respondents noted it as an effective way of introducing innovative technologies in tourism development (33%), the need to form a civic culture of the population (32%), the need to ensure citizens' participation in the management of society and the protection of group interests. (30%) and the importance of attracting people to public crowdsourcing projects (25%) [11].

The most common practices of crowdsourcing in tourism are attributed to the Couchsurfing crowdsourcing project, 45.2% of the respondents.

The votes of experts were evenly distributed between the options "creation of information platforms involving a huge number of people in work" and "participation of citizens in the implementation of crowd projects" by 32.3%.

The respondents give 19.4% of votes to the holding of mass events, meetings with government officials. Almost 13% of respondents consider the formation of a pool of independent experts as a common practice of crowdsourcing in public administration. The smallest number of respondents (6.4%) consider it a common practice of using crowdsourcing in the development of the tourism sector to fund crowdsourced projects in tourism.

The overwhelming majority of citizens consider material incentives to be the most effective motivational factor contributing to the participation of the population in crowdsourcing projects in tourism, 58% of the respondents agreed with this opinion. 54.8% of survey participants rely on moral incentives (for example, employment in a tourism organization). The option "social benefit from contacts" was chosen by a third of the respondents (32.3%). Motivation as a verification of ideas through participation in interactions in a social network was noted by 25.8% of respondents.

Crowdsourcing technology in the tourism industry, the fodder of everything else, communication, built as efficiently as possible and operating constantly, which means that several prerequisites must be met to ensure the communication process [15].

However, it should be noted that the communication process is two-sided, and its effectiveness depends on the position of both counterparties. Unfortunately, it can be stated that not only state structures, but also a significant part of the population are not yet fully prepared for it.

The next important condition for effective communication is the readiness of the population to participate in governance and its ability to implement it in practice. However, for Russian citizens, a passive-contemplative attitude towards social reality is typical [7].

In the context of this attitude, the fact of mutual alienation of the authorities and the population and, as a consequence, rejection by the bulk of citizens of initiatives emanating from the authorities becomes quite understandable, which is also manifested in a low level of trust between the authorities and the population. At the same time, mistrust is based on differences determined by the special subcultural nature of the bureaucracy [1].

Thus, it seems possible to identify the following as the main barriers:

1. *Sociocultural*. It is associated with the specifics of the mentality of the population and the nature of management traditions, which are expressed in the predominance of a complex of

stereotypes and ideas that do not stimulate people to participate in public, and officials to create favorable conditions for it. A social stereotype is a simplified, schematized, stable image of any social group or community; its concomitant link is the evaluative coloration. Social representations act as a chain of ideas and images that fix the cognitive mechanism of explaining what is happening [2]. Among the typical Russian stereotypes in relation to power is the conviction that one's actions are useless and, as a result, an a priori refusal to actively participate in crowdsourcing practices. "The main factor demotivating civic engagement in modern Russian society is the confidence of many citizens that their personal participation will not change anything. The feeling of helplessness and powerlessness of the "common man" is one of the persistent social myths that hinder the development of civic activism in Russia. In turn, state and municipal officials are traditionally skeptical about the very idea of mass activity" [14].

2. *Corporate and bureaucratic.* In modern conditions, the bureaucracy acts as a corporation, the characteristic features of which are self-orientation, an orientation toward simplification, total formalization, regulation and, most importantly, immunity to outside interference, and especially to the practice of activity on the part of citizens and public structures. However, since at present the idea of civil society and the development of civic engagement is very popular and is often discussed and declared at the state and regional levels, the authorities are forced to implement it, or rather demonstrate and declare its implementation [9].

3. *Regulatory.* As the analysis of crowdsourcing practices has shown, there is currently no substantiated regulatory framework for crowdsourcing in relation to the regional situation, despite its relevance and the presence of certain crowd-practices. Crowdsourcing practices are currently partially regulated by the laws "On public control in the Russian Federation", "On non-profit organizations", etc., however, these regulations often conflict with the definition of

subjects and objects of activity, opportunities and forms of participation; moreover, the information aspect of crowdsourcing is not actually taken into account in them. The lack of normative consolidation of the process of implementing crowdsourcing does not allow adequately assessing the results of technology implementation, determining the problems arising in this regard and assessing social risks [3].

4. *Information and communication.* The relationship between the authorities and civil society is largely characterized by the disruption of information exchange between the state and society. A rather paradoxical situation arose. On the one hand, modern communication technologies allow subjects of social action to receive and master large amounts of information; on the other hand, communication often does not contribute to the rapprochement of the positions of the population and government bodies, but separates them. Despite the fact that one of the functions of civic participation is the coordination of goals that have become priorities for the management system and the goals that various groups of the population set themselves based on their own private interests or as a result of their specific vision, in practice, inclusion in the management process increasingly leads to aggravate conflicts [10].

5. *Temporal.* Crowdsourcing, like any social practice, requires its subject to have resources, one of which is time. As modern studies show, a significant part of the population does not have it, especially since the time is now the most compressed, people are increasingly living online. In addition, in the era of capitalization of time, in which the statement "time is money" is quite real, free time is extremely valuable [13]. In view of the fact that social activity involves gratuitous, altruistic participation, the choice of citizens is inclined in favor of other forms of realization of free time.

6. *Selfish.* Radical social reforms in Russia in recent decades have stimulated the growth of individualism and mutual alienation of citizens, including alienation from power, which, for all its shortcomings, was nevertheless associated with the idea of public goals and interests. A person

began to increasingly become isolated within a narrow horizon of personal problems, considering the common good, mutual assistance, solidarity as unnecessary (and even harmful) illusions. At the same time, their egoistic values clearly prevail over altruistic and collective ones. As a result, selfish interest turned into a factor that hinders the inclusion of a citizen in solving common affairs at all levels of the social system [5]. In the collective consciousness of the population of a number of regions today, only some elements of stabilization of the structure and dynamics of values can be traced. On the whole, in the years of systemic transformation of Russia, a tendency for the prevalence of personal attitudes over all others has become clear. Such a hierarchical distribution of values is due to the fact that the majority of Russian citizens do not find opportunities to fulfill their need for physical, economic, and legal protection. In such conditions, political and legal principles move to the periphery of the value hierarchy, the destruction of values that generalize the basic principles of social structure, and the expansion of vital values take place.

A necessary condition for overcoming socio-cultural and technological barriers to the implementation of crowdsourcing technology in the development of tourism is their systematic sociological analysis and the development of practical recommendations for state and municipal authorities and civil society institutions.

In the process of planning a vacation, an increasing number of people prefer to independently form a tourism product through direct contacts with the owners of its components - the host. Some tourists make this choice due to the desire to save on commissions by the tour operator, while others strive for individual travel and freedom. All this predetermined the development of crowdsourcing in tourism and hospitality. He is also present in the "grocery" initiatives of guests: in the preparation of the menu and the individual choice of hotel services [4].

We highlight several methods of using crowdsourcing in tourism.

The first direction that will be considered in

the study, as a method of using crowdsourcing in tourism, is the transformation of urban and rural tourist destinations by involving the local population.

The second important direction in the implementation of crowdsourcing methods in tourism is the formation of the image of a tourist destination and advertising of a tourist product with the help of mass consciousness.

The brand creation process took place in several stages, at each of which the city residents were the main participants:

1) a study to identify urban identity - a continuous study of opinion about the city online on the website and offline by questioning in special points, interviews with opinion leaders of different groups of the population [8].

2) the formation of the concept of the future brand - the developed brand concepts were evaluated by city residents, opinion leaders, and the final decisions were made with the participation of municipality deputies;

3) brand visualization – several options for implementing the concept were presented for public approval.

The third method of crowdsourcing in tourism, considered in this study, is the creation of new types of tourism: social, volunteer tourism and couchsurfing [6].

Social tourism is a way of organizing travel using the so-called. "Social recommendation services". It was already mentioned above that tourists are gradually getting tired of classic tourist products and are looking for new ways of organizing travel in order to get acquainted with the authentic environment of the destination of interest [12].

Thus, realizing the function of helping a tourist in planning a trip, social travel advice services also generate an image of a specific tourist destination in the mass consciousness, and carry out mass advertising.

Recently, the so-called volunteer tourism has become increasingly popular. This is a type of tourism when those who wish pay money for the opportunity to travel to developing countries and

work there as a volunteer – to build schools, hospitals, teach children, etc. There are special sites where you can find an interesting volunteer project. Here, as nowhere else, the principles of crowdsourcing are implemented [13]; the emergence of this type of tourism would not have been possible without collective participation.

Participation in crowdsourcing activities should be ensured not only at the stage of development and implementation, but also at the stage of supporting the proposal. Once a proposal or idea has been introduced, it is usually always necessary to gradually improve the change being implemented. Scheme of a typical scenario of a crowdsourcing project in the tourism industry (Figure 1).

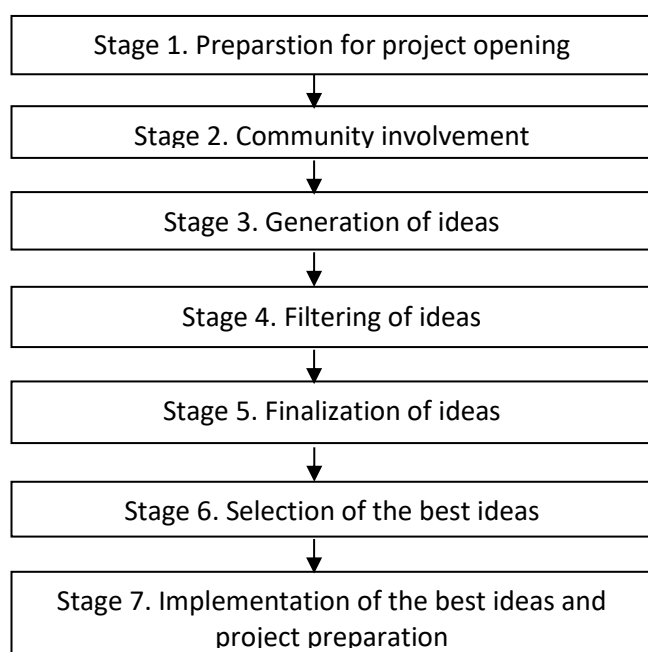


Fig. 1 – Crowdsourcing project scenario in the tourism industry

Stage 1. Preparation for the start of a crowdsourcing project. Guided by the drawn up project card, the tourist organization prepares the text, determines the conditions for the implementation of the project: project format, time frame, rules for participants' access, requirements for the resulting project documents.

Stage 2. Attracting enthusiasts who should form a "crowdsourcing community". At this stage,

the customer, together with the partner organization, organizes the association and informing the participants on the basis of pre-formulated conditions. The customer can hold a discussion in a closed format (with the involvement of a limited number of participants and travel organizations) to determine the goals, motives and methods of community development.

Stage 3. Generation and discussion of proposals / ideas by project participants. At this stage, project participants publish ideas, work with different versions of documents, and form so-called "discussion branches".

Stage 4. Selection of proposals, ideas, versions of documents. At this stage, participants select valuable ideas, messages, comments, participate in the appropriate voting, evaluate the usefulness of the information, select the most promising proposals from the "discussion branches".

Stage 5. Development and refinement of proposals, ideas, document options. Within this stage, members of crowdsourcing finalize the proposed solutions, ideas of the crowd project. The participants unite around the thoughts and ideas that interest them, jointly finalize them.

Stage 6. Selection of the best ideas, solutions, versions. The customer of the crowdsourcing project is obliged to analyze the proposals and ideas demonstrated as a result of the crowdsourcing project and select the most relevant and necessary for implementation in the practice of regional management.

Stage 7. Implementation of the selected proposals and preparation of the final version of the document. The customer of the project is obliged to implement the implementation of the selected proposals, ideas in accordance with the current plans of the department, which must be personally responsible for the implementation of the selected ideas.

This scenario of a crowdsourcing project is typical and can be changed and supplemented depending on the goals of the customer.

In our opinion, the following ways of motivating participants in crowd projects in the region can be distinguished:

- the likelihood of influencing the desired results of state and municipal services in the region;
- the opportunity to participate in something important for society and for oneself;
- the social importance of the individual interest of the citizen;
- the likelihood of the embodiment of their own ideas and proposals, which presupposes a special interest for creative citizens;
- a hobby that will bring significant benefits to the people;
- the use of crowdsourcing as a social lift for career growth;
- method of searching for like-minded people;
- satisfaction of curiosity;
- selflessness for the good of society;
- useful acquaintances with certain people who will be able to help in a specific field of activity (establishing important contacts);
- awarding a certificate of honor or a letter of thanks;
- a chance to change the future of the people for the better;
- identification of their individuality, the possibility of self-realization;
- the realization that your opinion is important and is considered a contribution to a single cause.

With all the obvious advantages of crowdsourcing, its introduction into the practice of regional management will be ineffective if a number of requirements for its organization are not met, the neglect of which will discredit the new management technology

These include the following:

- crowdsourcing should not be transformed into either a political campaign or an administrative procedure for the formal introduction of innovations. At the same time, crowdsourcing in regional management should be temporary in nature, because over a long period of time it is rather difficult to ensure the motivation and activity of people's experts;
- organizers of crowdsourcing should proceed from an adequate understanding of the

problems, specifics and state of activity of the regional authority acting on the basis of regulatory documents adopted in the management structure. In the absence of information, the risks of a formal way to resolve the problems of the development of the system of regional government bodies increase:

- it is necessary to act according to clearly regulated transparent mechanisms for taking into account ideas in the course of interaction between the authorities and citizens, as well as focus on allocating resources and establishing ways to analyze a significant number of proposals;
- it is important to establish a high degree of awareness of the informal public about the results of its participation in crowd projects; it is necessary to provide constant feedback with project participants so that this information will work to increase the psychological charge and involvement of participants in the crowdsourcing technology;
- organizers of crowdsourcing should have a developed methodology for assessing the effectiveness of crowdsourcing projects in state and municipal administration, including procedures, criteria, indicators and evaluation indicators.

Conclusion

Crowdsourcing demonstrates quite effective methods of using mass activity for various aspects of tourism reality. However, you shouldn't forget about the high risks when you turn to the crowd for help. No one knows in advance which idea will resonate with millions, and which only a dozen people. There is another problem with crowdsourcing - filtering out "social noise". Out of a thousand proposals, only dozens can be worthy of attention, are somewhat close to reality and only one is brilliant. However, it is possible that everything will be reduced only to an empty "shaking of the air." As a final note, we note that crowdsourcing, like any popular, fashionable phenomenon, must be treated carefully and even with a certain degree of skepticism. As our analysis has shown, crowdsourcing has both quite obvious advantages and no less obvious disadvantages, and the latter cannot be ignored,

unless, of course, you want to succeed in implementing your projects.

The study of the features of the use of crowdsourcing allows us to conclude that the use

of individual and collective consumer experience, intelligence and communication potential in order to improve the final tourist product or service is increasingly being used in tourism.

References

1. **Babincev, V.** (2014). Subkul'tura byurokratii [Subculture of bureaucracy]. *Vlast' [Govenance]*, 1(12), 65-68 (In Russ.).
2. **Gerasimova, E. V.** (2013). Pravovoe regulirovanie obshchestvennogo kontrolya v Rossijskoj Federacii [Legal regulation of public control in the Russian Federation]. *Vestnik Baltijskogo federal'nogo universiteta im. I. Kanta. Seriya: Gumanitarnye i obshchestvennye nauki [Bulletin of the Baltic Federal University named after Kant. Series: Humanities and Agricultural Sciences]*, 9(7) (In Russ.).
3. **Bulavkina, L. V.** (2012). Crowdsourcing in the marketing service. *Marketing communications*, 6, 47-48.
4. **Golubev, E. V.** (2014). Crowdsourcing project as a system: necessary elements, their interrelation, limitations and ways of overcoming. *Marketing communications*, 5, 24.
5. **Gatautis, R.** (2014). Crowdsourcing application in marketing activities. *Procedia. Social and Behavioral Sciences*, 110, 1243-1244.
6. **Gula, I.** (2013). Crowdsourcing in the tourism industry – Using the example of ideas competitions in tourism destinations. *ISCONTOUR: Proceedings of the International Student Conference in Tourism Research*, 57, 271.
7. **Dinesh, K., & Veerbala, S.** (2013). *Exploring crowdsourcing: a viable solution towards achieving rapid and qualitative tasks*. Library Hi Tech News.
8. **Hekman, E.** (2013). Crowdfunding and Online Social networks. *Manchester Journal*, 30, 14.
9. **Ksenofontova, I. V.** (2016). The role of the Internet in the development of the protest movement. *Monitoring of public opinion*.
10. **Kurbatov, V. I.** (2012). Network communities of the Internet as a social construct. *Humanities of the South of Russia*, 1(22), 33.
11. **Pankrukhin, A. P.** (2011). Crowdsourcing-seductive marketing aggressor-principles, content, technologies. *Practical marketing*, 58, 77-78 (In Russ.).
12. **Howe J.** (2010). *Crowdsourcing: Why the Power of the Crowd is Driving the Future of Business*. Crown Publishing Group, 10, 25.
13. **Howe, J.** (2012). *Crowdsourcing: Collective intelligence as a business development tool*. Alpina Publisher, 15, 370.
14. **Rogova, A. V.** (2015). Problems of introduction of crowdsourcing technology in public administration. *International research journal*, 2 (12), 55.
15. **Rogova, A.** (2017). Assessment of awareness of the population of the region about the possibilities of crowdsourcing in regional management. *Global scientific potential*.
16. **Simmons, J., & Nelson, L.** (2011). Intuitive Biases in Choice versus Estimation: Implications for the Wisdom of Crowds. *Journal of Consumer Research*, 13, 145-146.