

The Role of Digital Technologies in Increasing the Tourist Attractiveness of the Sverdlovsk Region

Radygina Ye.G.* Okhrimenko E.I.

Ural State University of Economics, Yekaterinburg620144, Russia

**Corresponding author. Email: radygina@bk.ru*

ABSTRACT

The rapid development of the digital economy in the world provides increased competition in various areas, including tourism. The spread of digital technologies entails significant changes in the business organization. The strategy for the development of domestic and inbound tourism in the Sverdlovsk region for the period up to 2030 defines the directions for the formation of attraction of tourist destinations only in terms of the development of domestic tourist potential. Increasing the tourist attractiveness of the region is an important task for ensuring sustainable economic development. Internal and external factors of tourist destinations attractiveness are marked. In modern society the development of only internal characteristics of destination attractiveness becomes insufficient. It is necessary to create an information field that takes into account the external factors of forming tourist attractiveness. However, the role of digital technologies is not limited to creating only an information field. They are important both in forming the internal attractiveness of tourist sites, and in organizing tourist services (creating tourist resources). The article analyzes the objects of tourist interest in the territory of the Sverdlovsk region and the problems that need to be solved. Existing problems indicate the need to increase the attractiveness of tourist destinations both at the level of the internal tourist product and at the external level (the level of territory marketing).

Keywords: *tourist potential, tourist destination, tourist cluster, attraction, digital technologies, Sverdlovsk region*

1. INTRODUCTION

The tourism industry is the most dynamically developing branch of international trade in the non-resource sector. According to The Tourism Committee of the Organization for Economic Cooperation and Development, in recent years the industry accounts for 3.8% of the country's gross domestic product and 0.7% of the total number of employees. The Russian tourism sector retains significant potential to accelerate growth and strengthen its role in the development of the economy [25].

Digital technologies have an impact not only on the development of the regional economy, but also on the organization of tourist services and communication with consumers.

Tourism services are linked to various sectors of the regional economy. The tourism industry includes accommodation facilities and hotels; transport services; objects of spa treatment and recreation; public catering facilities; objects and means of entertainment; objects of educational, business, health, sports and other purposes; organizations that carry out tour operator and travel agent activities; tourist information systems; organizations that provide excursion services, etc. The tourist resources that provide the main directions of tourism development and attraction of tourists include natural, historical, socio-

cultural objects, including objects of tourist display, as well as other objects that can meet the spiritual and other needs of tourists, help maintain their life, restore and develop their physical strength [32].

However, the presence of tourist interest objects does not always determine the intensity of tourism development and the number of visits. According to the all-Russian center for the study of public opinion, on average, only 45 % of the country's residents have spent the last 5 years on vacation in a region other than their region of residence [30]. It indicates the need to increase the attractiveness of tourist interest objects and stimulate the motivation of consumers to travel, that is, to increase the attractiveness of tourist destinations.

However, 74% of tourists in the world and 56% in Russia plan their trip which determines the prospects for the use of digital technologies in the tourism industry [20].

The importance of studying the issues of increasing the tourist attractiveness of the Sverdlovsk region is determined by the following aspects:

- the number and exclusivity of tourist interest objects on the territory of the Sverdlovsk region determines the degree of its investment attractiveness;
- a high degree of attractiveness is associated with the prospects for tourism development, the number and intensity of tourist visits, the possibility of attracting tourist flows;

- tourist attractiveness of the region is directly linked to profitability and efficiency in the provision of tourism services, and thus promotes not only the development of the tourism industry and related fields, but other areas of the economy of the region that are not directly related to tourism, contributes to employment and development of social infrastructure.

However, despite the fact that the concept and methods of assessing the tourist attractiveness of the region are considered quite actively, the role of digital technologies in the structure of providing attractiveness has not yet been determined. It is assumed that the impact of digital technologies on attractiveness will depend on the availability and characteristics of the perception of information about the territory by consumers of tourist services. Thus, we can talk about the need to identify the main directions of digitalization in the tourism industry and the use of digital tools to increase the attractiveness of tourist destinations.

The research may be of interest for substantiating the strategy and tactics of tourism development in the context of digitalization both at the national and regional level, and at the level of individual destinations, tourist agencies, and objects of tourist interest.

2. RESEARCH MATERIALS AND METHODS

The tourism potential of the territory is considered from the perspective of a cluster approach based on publications by N.P. Nickerson, R. N. Moisey [6], Akperov [9], K.S. Benidze [10], M.N. Galanina [13], Z.Yu. Kaloeva and M.M. Malikova [18], E.V. Moshnyaga [22], A.A. Safaryan [28].

A territorial tourism cluster is a group of geographically neighboring interacting companies, public organizations and related government agencies that form and serve tourist flows and use the recreational potential of the territory. An important factor of development is the availability of tourist potential of territories, knowledge of which is one of the main conditions for the formation of a tourist product [21, p.87].

The cluster approach to the development of regional tourism consists in determining the main competitive tourist advantages, conducting tourist zoning and identifying an object that can structure the space and form tourist flows and businesses around it. This movement leads to the creation of tourist destinations.

A tourist destination is any territory that tourists move towards with the intention to visit it as the purpose of their trip [15]. The destination has a pronounced spatial and territorial character and includes tourist infrastructure, attractions (what attracts tourist flows), and the image of the tourist territory [22, p. 219]. Tourist destinations are considered both from the supply point of view and demand (N. Leiper) [12], and from the theory point of view of the product life cycle in relation to the tourist territory (R. Butler) [18, p.103].

The peculiarity of the destination is the presence of its own attractive opportunities that attract tourist flows. A.A. Safaryan points out that attraction is an element of the tourist potential of the territory along with tourist resources and services, and includes natural, cultural, architectural objects, attractions [28, p. 93]. N.V. Lysenko in the structure of the tourist potential of the territory distinguishes internal tourist potential (resource, environmental, economic, organizational) and external tourist potential (innovative, informational, demographic, social, consumer, etc.) [34].

The concept and factors of increasing the attractiveness of tourist destinations are considered in the works by G. Moscardo [5], B.N. Rittichainuwat, J.K. Leong [7], M.N. Galanina [13], D. Bukhalis [3], S.N. Pisaryuk, M.V. Potanina, R.N. Litvinova [24].

Attraction is the process of forming the attractiveness of someone or something for the perceiver, and attractiveness is the product of this process: attractiveness [13, p. 7]. The Attractiveness of a tourist destination requires a comprehensive assessment that takes into account both the territorial aspect and the totality of social relations, including economic, social, cultural, demographic, environmental and other indicators [1].

In the digital economy, digital technologies play a special role in increasing the attractiveness of a tourist destination. Digital technologies in tourism are considered in the works by M. Mariani [2], N.J. Morgan, A. Pritchard, S. Abbott [4], I. Yeoman, U. McMahon-Beattie [8], N.S. Paliy [23], N.S. Grigorieva [14], V.A. Shamlikashvili [35].

Without the use of digital technology, it becomes impossible to use the tourist potential of the territory and form a competitive tourist product. In the conditions of digitalization, business models are significantly changing, the importance of intermediaries is changing, and the role of an individual approach to the development of a tourist product is increasing [9]. The main issues from the tourism management point of view are the study of tourism digitalization impact on the development and management of regional tourism systems, the impact of tourism activities on the economy of the region, the development and management of regional tourism projects and programs, etc. A special role in this process is also played by the organization of communications with consumers of tourist services.

The study of the tourist destination components is based on the concept of "6A" by D. Bukhalis, who identifies the following elements in the structure: attractions, accessibility, amenities, available packages, activities and ancillary services [3].

In the process of studying the factors that affect the attractiveness of tourist destinations, the model of mobility by Dzh. Urri was used. He identifies new forms of mobility in addition to physical travel: imaginary travel, virtual mobility, and communication interactions [31, p. 10]. Mobility in the modern world has changed qualitatively in terms of intensity, scale and technical means used. Digital technologies are contributing to the development of new forms of mobility and ways to meet travel needs.

To explore the attractiveness of tourist objects on the territory of Sverdlovsk region and analyze the role of digital technologies in improving the attractiveness, we used data about the tourism objects from the open resources of The Tourism Development Centre of Sverdlovsk region [26], tourist portals, search engines Yandex and Google. Mathematical and statistical methods were used for processing and analyzing the obtained data.

3. RESEARCH RESULTS

The study of attraction criteria for tourist destinations has revealed the presence of internal and external factors of attraction formation. Internal factors of attraction formation include quantitative and qualitative characteristics of tourist interest objects: natural, cultural, architectural objects, attractions, tourist resources. External factors of attraction formation include the following ones.

The most important factor in increasing the attractiveness of a tourist destination is information. However, the role of digital technology is not limited to creating only an information field [36]. They are important both in forming the internal attractiveness of tourist sites, and in organizing tourist services (creating tourist resources).

In Russia tourist resources are often advertised, but a complete unique tourist product is not created, target groups are not identified among potential tourists, and destination brands are not formed. Russian territories need to learn how to create unique popular tourist products, correctly identify their segments of tourists and focus on meeting their needs, and create brands as the basis for promoting destinations. Thus, in our opinion, it is necessary to pay attention to the development not so much of destinations as to the process of attracting tourists and creating a favorable image of the city or country [13, p. 9]

The weakest link in the system of regulation in the sphere of tourism and recreation in the Sverdlovsk region, at the current time, is the lack of a system for promoting regional tourism products, which does not contribute to the growth

of a steady tourist flow directed to the Sverdlovsk region. The existing infrastructure base does not meet the needs of modern tourism, there are no favorable conditions for investment in the construction and reconstruction of hotels and specialized accommodation facilities (health and wellness organizations) and improvement of roads and tourist display facilities [19, p.48].

The Strategy for the Development of Domestic and Inbound Tourism in the Sverdlovsk region for the period up to 2030 defines the directions for forming the attractiveness of tourist destinations only in terms of the development of domestic tourism potential. The basis for the formation of the tourist brand of the Urals and Sverdlovsk region is:

- geographical features (border of Europe and Asia);
- geological features (Ural mountains, Konzhakovsky stone, Denezhkin stone, Serebryansky stone, Kumba, Kachkanar etc., rivers and lakes);
- mineralogical features ("semiprecious strip" of the Urals, including deposits of jewelry-quality minerals: topaz, tourmaline, emeralds, amethysts, rock crystal; the world's largest deposits of asbestos, iron, vanadium ores, gold);
- historical features associated with the expansion of the territory of the Russian state to the East, the formation of Russian industry ("mining and factory civilization"), the evacuation of more than 700 industrial enterprises from the Central part of Russia to the Urals during the great Patriotic war; the life and activities of people who have made a significant contribution to the history, culture and politics of the Russian state, etc;
- cultural features associated with the traditional values of the Russian people (traditional folk crafts and crafts, traditions, rituals and customs of the small peoples of the Urals (Tatars, Bashkirs, Mordvins, Udmurts, Khanty, Mansi) [29, p.11-13].

The tourism potential of the Sverdlovsk region includes: attractive objects (natural, historical and socio-cultural) and tourist resources (tourist infrastructure) (Figure 1).

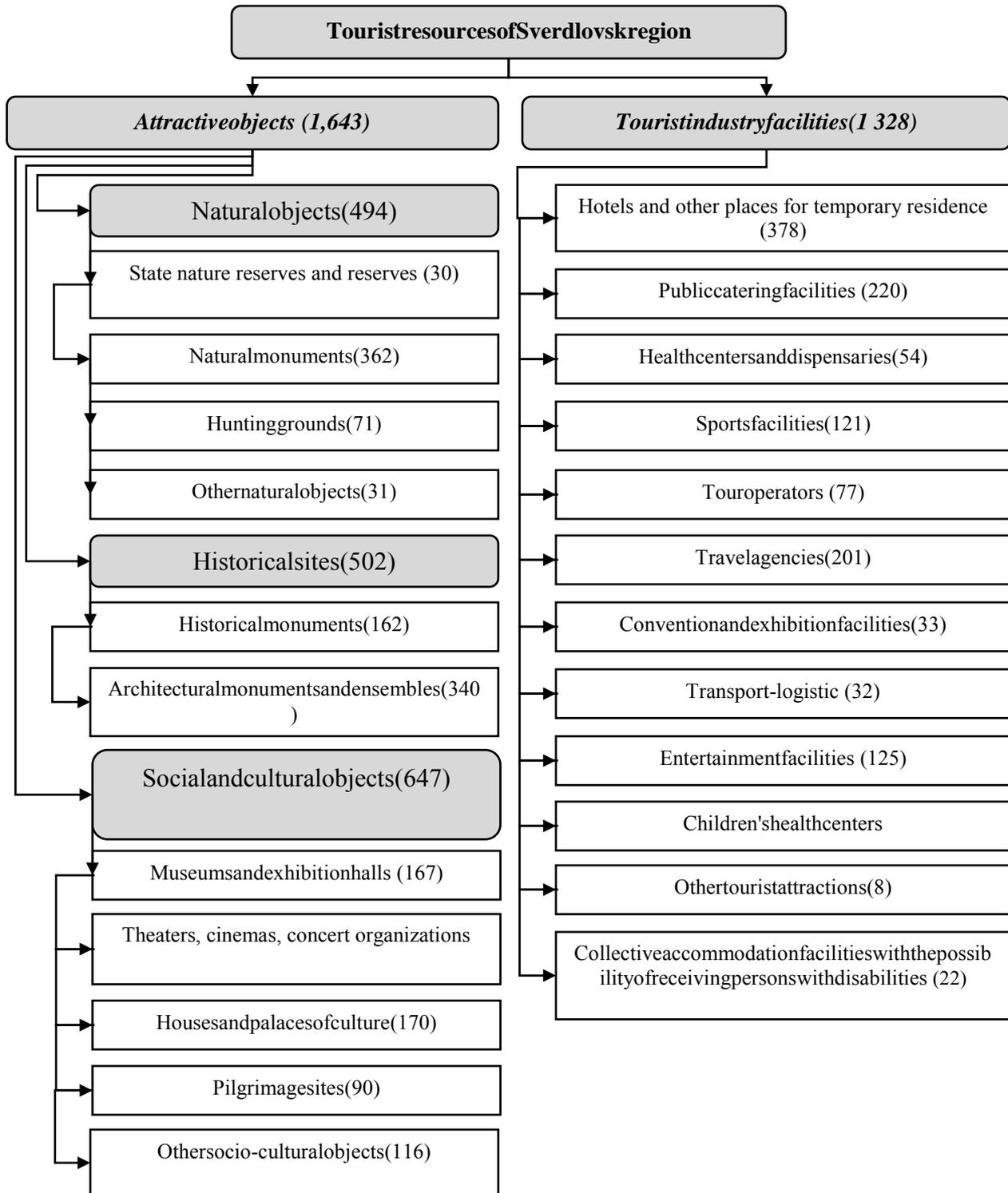


Figure 1 Tourist resources of the Sverdlovsk region (on January, 1, 2020) [26]

On the territory of the Sverdlovsk region there are 12 tourist and recreational clusters, aimed at the development of family recreation areas, cultural and historical attractions, natural and therapeutic zones, and eco-tourism. It is planned to combine more than 40 municipalities (the most developed are Yekaterinburg, Verkhoturys, Nizhny

Tagil, Alapaevsk, and Sysert) into clusters. On January, 1, 2020, in the Sverdlovsk region there are 252 developed and certified tourist products, including those aimed at different target audiences of consumers: for children and schoolchildren – 224 tourist products (88.9%), for the

elder generation – 29 tourist products (11.5%), for people with disabilities – 3 tourist products (1.2%) [26].

However, despite the presence of unique natural resources, there are problems in the Sverdlovsk region that hinder the development of the tourism industry:

- territorial remoteness of objects from the main international tourist flows [33];
- lack of the territorial tourism marketing system, lack of the comprehensive approach to organize a tourist product on the territory of tourist clusters;
- a weak development of tourist infrastructure [17].

The transition to a digital economy forms the basic tendencies for the tourism market development: the globalization of tourism business; development of international Internet resources; reducing intermediaries between producers and consumers of tourism services; the emergence of new distribution channels; mass switching travel companies to work in the Internet; the transition to a personalized approach to creating tourism products [16].

For effective formation of tourist attractiveness of the region the introduction of information technologies is necessary both at the level of internal tourist potential (attractive objects) as well as at the level of external tourist potential (objects of the tourist industry).

Increasing attractive opportunities using digital technologies at the level of domestic tourism potential include:

- the use of tourist information systems, GIS technologies and navigation systems;
- the development of transport infrastructure, ensuring transport and pedestrian accessibility of objects;
- the ensuring security at tourist industry facilities, including blockchain technologies;
- the technologies for managing resources, processes for providing services and organizing services, providing the ability to respond to tourist requests, neuromarketing;
- the robotization of routine processes of tourist product formation and service provision [11, p. 42];
- the organization of work and formation of employee loyalty;
- Internet of things (QR codes), smart cards.

The use of digital technologies contributes to the sustainable development of the tourist territory, simplify the interaction and integration of the environment and the guest, and improve the quality of service for tourists in their places of stay.

Increasing the attractiveness of a tourist destination at the external level includes:

5. CONCLUSION

Digital technologies have an impact not only on the development of the regional economy, but also on the organization of tourist services and communication with consumers. The transition to the digital economy defines new ways of forming a tourist product and its implementation. It is necessary to take into account the fact that there are not only new tourist facilities and new

formation of the territory's brand, availability of information about tourist and recreational products and services, objects of the tourist industry, service [27, p. 104] and its provision to tourists using information technologies;

- using digital marketing tools in the promotion and implementation of tourism products: search engine optimization (SEO), maps (Google), mailing (e-mail, sms, push), chat-bots;
- collecting and organizing the feedback with the help of digital services;
- personalization of the customer experience;
- customized gamification of a tourist product;
- dynamic package tours, the use of artificial intelligence in the planning of tourist products.

4. DISCUSSION OF RESULTS

The collection and analysis of information about tourist objects located on the territory of Sverdlovsk region is carried out on the basis of materials provided by the state budget institution of the Sverdlovsk region, "Tourism Development Centre of Sverdlovsk Region" in the framework of the project "The Ural School", implemented on the territory of Sverdlovsk region in 2015 with the support of the Ministry of Investments and Development of Sverdlovsk Region.

The discussion of the research results took place in the framework of presentations at scientific and practical conferences:

- Ural economic forum "Ural-driver of neo-industrial and innovative development of Russia", Yekaterinburg, Russia, October, 24-25, 2019 with a report "New opportunities for building relationships with consumers of services in the context of digital transformation";
- International scientific and practical conference on digital economy (ISCDE 2019), Chelyabinsk, Russia, November, 7-8, 2019 with the report "Features of communication with consumers of tourist services in the Internet space";
- - II International scientific and practical conference "Modern approaches to improving the quality of service in the tourism and hospitality industry in the context of cross-cultural communication", Yekaterinburg, Russia, April, 23-24, 2020 with the report "Digital transformation in the tourism and hospitality industry".

forms of interaction with consumers, but also new forms of travel.

Attractiveness indicates the recreational value of a tourist object and includes visual, verbal, emotional characteristics and the attitude of the tourist to a certain territory.

Despite the presence of unique natural resources in Sverdlovsk region there are some problems that hinder the development of the tourism industry: the territorial remoteness of objects from the main international tourist flows; the lack of a system of territorial tourism marketing;

weak development of tourist infrastructure. The existing problems indicate the need to increase the attractiveness of tourist destinations both at the level of the internal tourist product and at the external level (the level of territory marketing). A tourist destination is an object that should be aimed at a specific target audience.

The study of the role and opportunities of digital technologies at the present stage is often reduced to describing the ways of using, the essence of technological innovations, assessing the prospects for implementing various information products and their economic efficiency.

The pace of development of the digital economy indicates the need to use new technologies and products in the tourism industry. The competent formation of information flows and the use of digital technologies in the tourism industry can significantly increase the attractiveness of a tourist product. When studying the possibilities of increasing the tourist attractiveness of the region, you should pay attention to the following:

- possibility of creating a competitive tourist infrastructure and ensuring the possibility of implementing digital technologies on specific objects of tourist interest;
- assessment of the economic feasibility of using digital technologies, ensuring the required quality of the tourist product and its cost to be met;
- readiness of target consumers to use digital technologies in purchasing tourist products and services – technological innovations should create additional convenience for consumers, so that the tourist product remains accessible and understandable for them.

REFERENCES

- [1] M.L.Belonozhko, S.M.Kirichuk, A. N. Silin, Certification of services in the managerial system of ecotourism development, *Journal of Environmental Management and Tourism*, T. 10, 6(38)(2019) 1365-1375
- [2] M. Mariani, Big data and analytics in tourism and hospitality: a perspective article, *Tourism Review*, 2019
- [3] L. F. Mendes, J. de Souza, D.Buhalis, Evaluating the effectiveness of tourism promotions to increase the competitiveness of destinations, *Tourism Economics*, 2019. DOI: <https://doi.org/10.1177/1354816619846748>
- [4] N. J.Morgan, A.Pritchard, S. Abbott, Consumers, travel and technology: a bright future for the web or television shopping? *Journal of Vacation Marketing*, vol. 7(2)(2001) 110-124
- [5] G. Moscardo, Shopping as a destination attraction: an empirical examination of the role of shopping in tourists' destination choice and experience, *Journal of Vacation Marketing*, vol. 10 (4)(2004) 294-307
- [6] N. P. Nickerson, R. N. Moisey, Branding a state from features to positioning: making it simple? *Journal of Vacation Marketing*, vol. 5(3)(1999) 217-226
- [7] B. N. Rittichainuwat, H. Qu, J. K. Leong, The collective impacts of a bundle of travel determinants on repeat visitation, *Journal of Hospitality & Tourism Research*, vol. 27(2) (2003) 217-236
- [8] Ia. Yeoman, U. McMahon-Beattie, Tomorrow's tourist and the information society, *Journal of Vacation Marketing*, vol. 12(3) (2006) 269-291
- [9] I. G. Akperov, Problems and prospects of managing the socio-economic development of the region in the transition to the sixth technological order, *Intellectual resources - regional development*, 1 (2014) 7-12. URL: <https://elibrary.ru/item.asp?id=25727827>
- [10] K. S. Benidze, Cluster approach in the development of tourism, *Russian entrepreneurship*, 6 (2017). URL: <https://cyberleninka.ru/article/n/klasternyy-podhod-v-razviti-sfery-turizma>
- [11] I. V. Bogomazova, E. V. Anoprieva, T. B. Klimova, Digital economy in the tourism and hospitality industry: trends and prospects, *Service in Russia and abroad*, 3 (85) (2019). URL: <https://cyberleninka.ru/article/n/tsifrovaya-ekonomika-v-industrii-turizma-i-gostepriimstva-tendentsii-i-perspektivy>
- [12] N. A. Borovik, The role of artificial attraction in the development and promotion of the destination, Problems and prospects of development of the hospitality industry of the Kaliningrad region through the eyes of young scientists: Materials of scientific and practical seminars of students and masters, Kaliningrad, 2018, pp. 3-11
- [13] N. M. Galanina, Destinaci and attraction: the nature and concept, *Scientific Bulletin of MGIT*, 1(15) (2012) 7-9
- [14] N. S. Grigorieva, Problems and prospects of tourism development in the digital economy, *Intellectual resources for regional development*, vol. 5(2)(2019) 47-52
- [15] L. V. Bunicheva, V. S. Orlova, Tourist destination as an example of inter-municipal cooperation, *Problems of territory development*, 5(2010). URL: <https://cyberleninka.ru/article/n/turistskaya-destinatsiya-kak-primer-mezhmunitsipalnogo-sotrudnichestva>

- [16] E. Yelovaya, Trends in tourism development in the digital economy, *Oikonomos: the Journal of Social Market Economy*, 2(14)(2019) 64-75
- [17] A. S.Subachev, V. A. Nikolaenko, Principles of increasing the attractiveness of territories of recreation and entertainment destination, *New ideas of the new century: materials of the international scientific conference of FAD TOGU*, vol. 3 (2013)141-145. URL: <https://elibrary.ru/item.asp?id=18964749>
- [18] Z. Yu.Kaloeva, M. M. Alikova, Actual problems of promotion of tourist destinations, *Advanced Science: collection of articles of the VIII International scientific and practical conference*. At 2 PM 2019, 2019, pp. 102-105
- [19] E. V.Kurilova, E. A. Kiselev, cities of the Sverdlovsk region and the development of cultural and educational tourism in the region, *Minerals and precious metals in national tourism development strategies: proceedings of the IV International scientific and practical conference*, 2014, pp. 49-51
- [20] A. G.Manakov, Yu. V. Ivanova, Assessment of the attractiveness and level of development of various types of tourism in the Federal lands of Germany, *Tourist and recreational potential, natural and cultural heritage of Eastern Europe: Materials of the International scientific and practical conference*, 2017, pp. 53-59
- [21] S. N. Moreva, Tourist cluster as a mechanism for rural development, *Socio-economic phenomena and processes*, 2 (60) (2014) 86-91. URL: <https://elibrary.ru/item.asp?id=21360413>
- [22] E. V. Moshnyaga, *Conceptual space of intercultural communication in tourism in the context of globalization*, M.: Sov. sport, 2010, 219 p.
- [23] N. S. Paliy, Development of digital interaction in the sphere of tourism and hospitality, *Integrated communications in sport and tourism: education, trends, international experience*, vol. 1 (2019) 195-199
- [24] S. N.Pisaruk, M. V.Potanin, R. N. Litvinova, The main factors that affect the attendance of the attractions, *Bulletin of the Belgorod University of cooperation, Economics and law*, 3 (76) (2019)87-97
- [25] Order of the Government of the Russian Federation No. 2129-R dated 20.09.2019 "on approval of the strategy for the development of tourism in the Russian Federation for the period up to 2035". URL: <http://www.consultant.ru/cons/cgi/online.cgi?req=doc&base=LAW&n=333756&fld=134&dst=1000000001,0&rnd=0.7387238778911691#042326406331180366>
- [26] Regional database on tourist resources of the Sverdlovsk region as of January 1, 2020, Center for tourism development of the Sverdlovsk region. URL: <http://crt.gotoural.com/pages/9>
- [27] A. N. Savchenko, Ways to promote a tourist destination using marketing tools, *Bulletin of modern research*, 12.12 (27)(2018) 402-405
- [28] A. A. Safaryan, Approaches to assessing the tourist potential of the territory, *Geographical Bulletin*, 1 (32) (2015) 89-102. URL: <https://elibrary.ru/item.asp?id=23409050>
- [29] Strategy for the development of domestic and inbound tourism in the Sverdlovsk region for the period up to 2030, Yekaterinburg, 2013. URL: http://economy.midural.ru/sites/default/files/files/strategiya_razvitiya_turizma_sverdlovskoy_oblasti_do_2030_goda.pdf
- [30] I. S.Syrkova, V. O. Shevchuk, Tourism in the digital economy, *Research, systematization, cooperation, development, analysis of socio-economic systems in the field of Economics and management (ISKRA-2019): proceedings Of the II all-Russian school-Symposium of young scientists*. Scientific editing by V. M. Yachmeneva. 2019, pp. 199-203
- [31] Urri D. Mobility and proximity, *Sociological research*, 2 (346) (2013) 3-14
- [32] Federal law" on the basics of tourist activities in the Russian Federation " dated 24.11.1996 No. 132-FZ (latest version). URL: http://www.consultant.ru/document/cons_doc_LAW_12462/
- [33] T. Yu. Chikurova, Transformation of environmental problems of the Sverdlovsk region into tourist potential, *Economic, environmental and social problems of the Ural mining industry: Collection of scientific articles*. Under the General editorship of N. V. Grevtseva, I. A. Koch. Yekaterinburg, 2017, pp. 85-89
- [34] I. P. Chupina, product Competitiveness as one of the key categories of the market economy, *Austrian Journal of Humanities and Social Sciences*, 1(2016) 103-105
- [35] V. A. Shamlikashvili, Virtual tourism as a new type of tourism, *Creative economy*, vol. 8(10) (2014)128-138
- [36] Vershinina A.V., Orlova E.R. (2019). The tourism industry in Russia: Problems of public administration. *Upravlenets – The Manager*, vol. 10, no. 1, pp. 16–27. DOI: 10.29141/2218-5003-2019-10-1-2.