

Chapter 9

Development of the Tourism Industry in the Context of Digital Transformation



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Abstract The COVID-19 crisis, becoming the largest crisis for the tourism industry, determined the overall transformation of the industry inside and outside the country, ensuring the creation of new directions, ideas, and concepts. The presence of deferred demand and the need to satisfy it indicates the desire of tourists to travel, experience the unknown, and get new impressions. In the current conditions, a special role is assigned to digitalization and offering new experiences to customers. It is advisable to consider the reorientation of tourists in the direction of tourist flows as an incentive for sectoral development. Digital technologies play a special role in the system of formation of consumer loyalty. The tourism ecosystem should combine a set of digital solutions to promote domestic tourism products by means of tourist marketplaces, multilingual services, augmented reality, big data, artificial intelligence, chatbots, super-applications, and other advanced services.

Keywords Tourism · Tourist flows · Pandemic · Digital technologies · Tourism ecosystem · Tourist marketplaces

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9.1 Introduction

As an economic system, the tourism industry accumulates information about the number of visitors per season, average spending per day, and average duration of stay. This is a basis for the formation of development forecasts, which have become of utmost importance in recent years due to the unstable situation of the industry and the maximum damage caused by the spread of COVID-19. Suspension of current tours and cancelation or deferral of bookings led to considerable losses for tour operators, travel agents, carriers, and other players in the tourist services market. Loss of income from international tourism totaled \$1.3 trillion. The year of 2020 became the worst year in the history of tourism. In 2021, international arrivals remained below the pre-pandemic 2019 (according to preliminary estimates by 72%). The data collected by the UN World Tourism Organization confirm the state of international tourism at the level of more than 30 years ago (UNWTO, 2021).

The problems of tourism development in the context of digital transformation are being actively studied by foreign and Russian researchers (Bogomazova & Stenyushkina, 2018; Klimova et al., 2020; Pesce et al., 2019; Voronkova, 2019; Yang et al., 2020). This research focuses on the need to implement measures for the development of domestic and inbound tourism in the Russian Federation by creating conditions for the formation of a tourism ecosystem that will combine the services, ensuring the promotion of a tourist product, increasing the attractiveness and efficiency of the use of destination resources.

9.2 Materials and Method

The research aims to assess the prospects for the development of the tourism industry and the impact of digital transformation processes on the industry.

To achieve the research goal, the authors studied the materials of Russian and foreign authors on digitalization in tourism and the experience of using digital services in tourism. The primary source was the statistical data of the Federal Agency for Tourism, results of studies by Yandex, Center for Information Communications “Rating,” and expert opinions, as well as industry analytical reviews presented in open sources. The research uses the conceptual provisions of the system approach and methods of logical analysis, which make it possible to formulate the main mechanisms of functioning of the digital tourist ecosystem.

9.3 Results

Tourism statistics generally reflect a reduction in the number of companies included in the Unified Federal Register of Tour Operators in 2014–2020 operating in the territory of Russia (Table 9.1) (Federal Agency for Tourism, 2021). Thus, during the period presented, the total number of companies reduced from 4593 to 4298 to the level of 2014–2015.

Expansion of the tourism geography and the popularity of international trips have determined the growth of tour operators in 2016–2019 operating in the international inbound and outbound tourism market. However, the closure of the borders led to a collapse in their operation and a reduction from 3130 in 2019 to 2436 in 2020. The work of tour operators, operating in the domestic tourism market, is usually represented by small and medium-sized businesses that have suffered less losses due to government support programs (from 1259 to 1243). As for organizations dealing exclusively with international inbound tourism, it is necessary to note the disappointing fact of a decrease in their number from 224 companies in 2019 to 192 firms in 2020.

The directions of tourist flows characterize the predominance in the pre-pandemic period of demand for tours in the field of outbound tourism. Since 2020, a transformation toward the growth of domestic tourism has been observed (Fig. 9.1) (JSC “Delovoy Profile,” 2021).

A review of the structure of tourists by destinations confirms a substantial drop in foreign trips by 77.5%, while in Russia’s territory—by 39%.

As far as directions of domestic tourism development are concerned, the absolute leadership in tourist visits belongs to the Krasnodar Territory, the Moscow Region, Moscow, the Republic of Crimea, and Saint-Petersburg, which is confirmed by the National Tourism Rating (Center for Information Communications “Rating,” 2021). Other popular tourist regions among travelers are the Golden Ring, the North

Table 9.1 Number of tour operators included in the unified federal register of tour operators in 2014–2020, units

Indicator	2014	2015	2016	2017	2018	2019	2020
The number of tour operators included in the unified federal register	4275	4202	4467	4553	4426	4613	4298
The number of tour operators working in the field of domestic tourism	2626	1616	1475	1456	1323	1259	1243
The number of tour operators working in the field of international inbound and outbound tourism	1649	899	2992	3097	2814	3130	2436
The number of tour operators working in the field of international inbound tourism	161	175	190	207	234	224	192

Source Compiled by the authors based on (Federal Agency for Tourism, 2021)

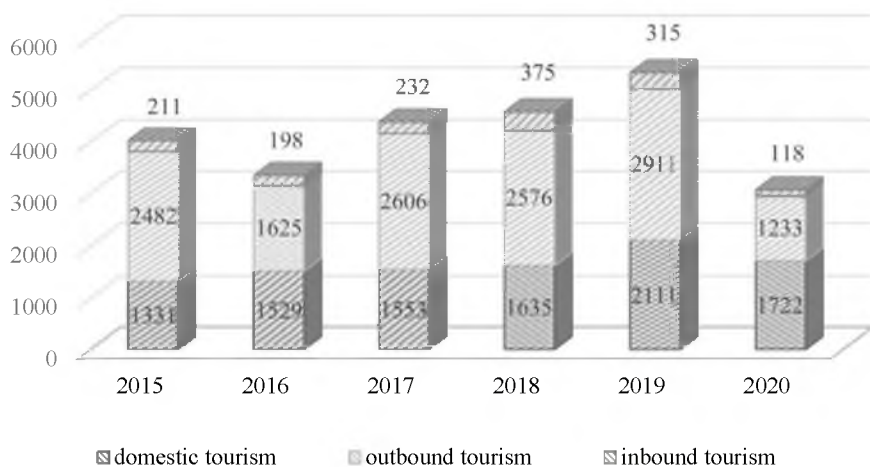


Fig. 9.1 Number of tourist packages sold to the population in 2015–2020, thousand units *Source* Compiled by the authors based on (JSC “Delovoy Profile,” 2021)

Caucasus, Altai, Baikal, the Curonian Spit, Karelia, the Khibiny Mountains, Tyumen, Tobolsk, Arkhangelsk, and Murmansk (Yandex Research, 2020).

The all-Russian *Open Your Russia* project, implemented to develop conceptual touristic routes, identified projects that had been awarded the status of a National Branded Route by the end of 2021. These projects include *From Baikal to the Ocean*; *Dagestan through the Eyes of Eagles*; *Zapovednaya Chud* (Arkhangelsk Region); *Mountain Shoria. To the Children of Taiga* (Kemerovo Region); *The Energy of Ladoga* (North-Western Federal District); *Sacred Khakassia*; *Buryatia in the Faces*; *The Energy of Baikal*; *Open the Unknown Yakutia*; *Active Tour, Genius. Formula. Legend* (Novgorod region, Saint-Petersburg); *Extraordinary Buryatia*; *Nature Calls. Fusing the Elements of Earth, Fire, Water, and Air* (the Oryol Region) (Petrov, 2022).

Simultaneously, holidays in Russia form contradictory impressions for the target audience, especially, among those who are used to spending holidays abroad: concurrently highlighting the positive aspects of a trip (a higher degree of certainty, essential ease of receiving medical care for COVID-19 infection, knowledge of the country and language, the possibility of independent travel organization) and the negative aspects (a well-known ratio of the discrepancy between price and quality, lack of novelty effect, increase in the number of tourists at popular resorts, etc.) (Yandex Research, 2020).

In general, most Russians (55%) determine the ideal duration of a tour from 8 to 14 days; for 18%, full rest is 4–7 days; 17% of travelers prefer 15–20 days; for 8% of respondents, a long rest is optimal (more than three weeks); 3% prefer short trips for 1–3 days (Ipsos, 2021).

According to the Skift Recovery Index (Welcome Times, 2021), the tourism industry in Russia is characterized by a faster recovery than in most foreign countries, which is mainly due to the promotion of domestic tourism. The IATA data (Welcome

Times, 2021) confirm Russia's leading position in the number of domestic flights after China and the USA.

The following areas should be considered fundamental trends in the near future (RBC Trends, 2020; Welcome Times, 2021):

1. The development of authentic tours due to the popularization of domestic tourism. While 2020 was characterized by a cautious and selective attitude toward domestic tourist destinations, in 2021, the popularity of authentic tours is confirmed by their mandatory presence in the list of many Russian travelers.
2. Wellness trips due to a long period of isolation and the need for restorative rehabilitation. As a rule, rest in combination with treatment has become especially relevant, which is confirmed by a 57% increase in the demand for health resorts and a decrease in the average age of the target audience.
3. Traveling by car due to the safety of travel and maintaining social distance.
4. Expansion of the glamping network provides comfortable living conditions in various accommodation options—a bell tent, safari tent, a-frame, yurts, wigwams, igloos, and teepees. Demand breeds supply: In 2020, there were no more than 60 providers of these services on the market, while in 2021, they exceeded 100.
5. The concern for the environment and reducing the effect of over-tourism. The impact of tourism can be considered from the perspective of a positive and negative impacts. The system of conscious consumption became a basic trend in 2021. Many travelers are increasingly abandoning mass destinations, preferring small towns and villages, thus ensuring the alignment of tourist flows and the local economy. The Ecological Union of Russia has approved “The Vitality Leaf” voluntary environmental standard for hotels that confirms the implementation of the quality policy and environmental protection.
6. In the system of promotion of tourist products, special attention is focused on the specifics of the youth audience in the format of the development of active recreation and children's tourism, which is related to a reorientation in the target audience segments. Active digitalization and digital technologies determine the competitiveness of the industry through the comprehensive involvement of social media (e.g., TikTok and Facebook). For example, #RUSSIATRavel flash mob on TikTok with 200 million participants brought together Russian celebrities, professional guides, and users who have posted videos of their favorite vacation spots in Russia (Marketing Tech, 2021). The challenge received such wide coverage not only during its official holding and upon the results of its completion; the most popular hashtags exceeded 150 million: #otdykhuvody—166.6 million, #zagorodom—243.9 million, #RussiaTravel—254.4 million. The “Russia from Home” chatbot (on Facebook) studies users' preferences and introduces the tourist attractions of the country in a virtual format.
7. Expanding the degree of influence of information technology and artificial intelligence—the development of an ecosystem of digital services for tourism providing comprehensive tourist services and impressions.

9.4 Discussion

The preservation and expansion of domestic and inbound tourism will be possible, provided that outbound destinations are reduced and replaced with trips inside the country, as well as through the promotion of the national tourist market and destinations. Simultaneously, as factors of state support that add to sustainable tourism development and a high degree of consumer preferences and loyalty, it is advisable to highlight the following:

- Support for SMEs (subsidizing, access to PRF, mitigation of administrative restrictions, and financial support);
- The tourist cashback program with a refund of 20% of the cost of a tourist product in Russia, when paying with a “Mir” card;
- Reimbursement of 50% of costs for organizing charter flights for tour operators to ensure the growth of domestic tourist flows;
- Implementation of projects (*development of tourist infrastructure and creation of high-quality tourist products, increasing accessibility and awareness of tourism products, and improving tourism management*), formation and development of tourist clusters, and macro territories to expand the influence of attraction “magnets” (The Big Golden Ring, Greater Urals, Big Volga, and Baikal);
- Intensification of work in the application of digital technologies (“Digital Tourism,” “Top-1000 Russia’s Local Cultural Tourist Brands”) (Marketing Tech, 2021).

According to the strategy for tourism development in Russia until 2035, in the near future, the primary role should be assigned to digital technologies. The expansion of their influence identifies the transformation processes of the entire range of services that ensure the functioning of the tourism industry in an electronic format. In the current conditions, the main task aimed at the implementation of measures for the development of domestic and inbound tourism is the creation of conditions for generating a tourism ecosystem, which will combine a set of services that promote a tourist product in the Russian Federation by increasing the attractiveness and efficiency of the use of resources of tourist destinations. It is advisable to highlight the following main mechanisms of functioning of a tourism ecosystem:

- Expansion of the tourist marketplaces network;
- Information saturation of multilingual services for tourists;
- Development and implementation of an electronic tourist card for the guest and its conversion into a mobile application;
- Organization of an electronic system for assessing the quality of tourist services;
- Formation of a rating of tourist services and facilities;
- Implementation of augmented reality projects;
- Development of open data systems, big data, and artificial intelligence in the area of tourism;
- Expansion of the range of influence of the work of real-time tourist aggregators that build routes;

- Development of multimedia applications for display objects, audio, and video guide services, with the possibility of integration with GPS navigation, using QR codes to form queries (Government of the Russian Federation, 2019).

The inevitable transition of the tourism industry to the digital space is apparent. Travelers have long been choosing tours online and paying for airline tickets in applications. The trend of recent years is associated with the introduction of VR presentations, artificial intelligence, chatbots, and other digital solutions (Baynazarov, 2020). Virtual reality technologies with the possible promotion of tourist products using the presence effect help tourist companies during the pandemic. VR and AR solutions and their involvement in the tourism sector visualize objects to choose from by a tourist, concurrently generating an attractive product by tourist organizations.

Transformational processes and the COVID-19 pandemic have strengthened the role of tourist marketplaces, which, in turn, resulted from the influence of restrictive measures, growth of online shopping, and the transfer of a part of employees to work remotely. According to Sberindex, online purchases of tickets in the business tourism sector for air flights in this segment amounted to almost 94% (Pirozhnikov, 2020). Among the tourist marketplaces presented in the domestic market, the following can be considered:

- ITOURIST—combines the functions of a tourist marketplace and a travel guide. Its structure should be noted as positive characteristics (regions, tours, excursions, guide, and blog), unfortunately, with a low degree of occupancy of sections. Only ten regions of the Russian Federation are presented in the marketplace, where only the Republic of Karelia is presented as informative as possible;
- WOWTRIP—a platform for searching and booking author's tours. The tourist's interaction is carried out directly with a travel organizer. The site presents a wide offer of tours; however, the functionality is limited only to providing secure payments;
- Russia.travel national tourist portal—an informational and educational project of the Federal Agency for Tourism dedicated to traveling in Russia;
- YouTravel.me—an aggregator of author's tours.

In the current conditions, the main competitive advantage of tourist organizations has become the availability of advanced online tools, including remote payment, availability of search engines, own mobile applications, functional Website, prompt changes to the tour and clear money cancelation and refund system, digital guides, and such services as a callback, online consultations with a virtual travel agent, and availability of widgets and accounts in messengers for a chat with employees.

The demand for digital services is provoked by the development of domestic tourism and, consequently, by the growth of independent travelers who acquire elements of a tourist product with the help of online agencies: purchase of tickets (KupiBilet), hotel reservations, development of a trip plan (Google Trips), search for transport (GetTransfer), travel insurance ("Cherepakha" online aggregator platform), and audio guides to local attractions and places for short-distance trips.

Services that allow planning trips and booking tickets determine an optimal period, subject to the cost and wishes of a tourist based on the analysis of the user's digital footprint and his or her online behavior. Artificial intelligence algorithms recommend a wide range of elements of future travel, including a comfortable time for a trip and the choice of a hotel or a room for booking.

Functioning as a digital concierge, the RUSSPASS digital service provides a quick trip collection (train or plane tickets, hotel reservations, ordering guided tours, etc.). It also narrates about the main attractions and gastronomic features of each region.

For example, one can also consider travel inspirator—an aggregator of planned trips. Its operation is based on the refusal to work independently with such services as Booking, Airbnb, and Tripadvisor. Buying city or country guides with a trip itinerary for a certain number of days, a selection of hotels, and interactive maps with places of interest, cafes, and stores provide tourists with practical information.

The involvement of voice assistants (Apple, Amazon, Google, and Yandex) is carried out in all spheres of human life: from buying groceries and medicines to financial advice. Surveys of respondents confirm the willingness of consumers to delegate everyday tasks to electronic assistants. According to OAG (Baynazarov, 2020), 25% of travelers in the USA plan to entrust ordering and purchasing air tickets to voice assistants. The mass introduction of such services confirms the fact that a number of foreign airlines offer the operation of services through voice assistants in the service process, including registration, providing flight information, booking of accommodation facilities, and rental of transport at the destination.

The involvement of large companies with their developments in providing comfort for travelers is expressed in offering special functionality and software products to the market. For example, the voice assistant from Amazon is presented by function Alexa for Hospitality, and its operation should be ensured by Amazon Echo that allows ordering food to a hotel room, cleaning, taxi booking, TV control, and lighting and curtains control. The result of the Google and KLM joint development is designed to help with getting ready for a trip: by activating voice assistance with the phrase “OK Google, Let me talk to KLM,” and by naming the country, a user receives information about the destination (Baynazarov, 2020).

Distribution of virtual interlocutors in a 24/7 format led to cost optimization when working with clients and improved user experience, as well as promotion of tourist products. For example, the Mindsay chatbot provides automation of 80% of user requests in 110 languages, as well as integration with business platforms, which is convenient when automating orders and bookings.

In the promotion of tourist products, a special role is assigned to virtual reality technologies. The following projects can be provided as domestic examples and developments of the use of digital tools:

- StavTravel—an online map and mobile application for iOS and Android-based devices with the attractions of the Stavropol Territory;
- “Altai Today” mobile guide—an application with information about the region and its places of interest and attractions, with the possibility of booking rooms, ordering, and renting vehicles;

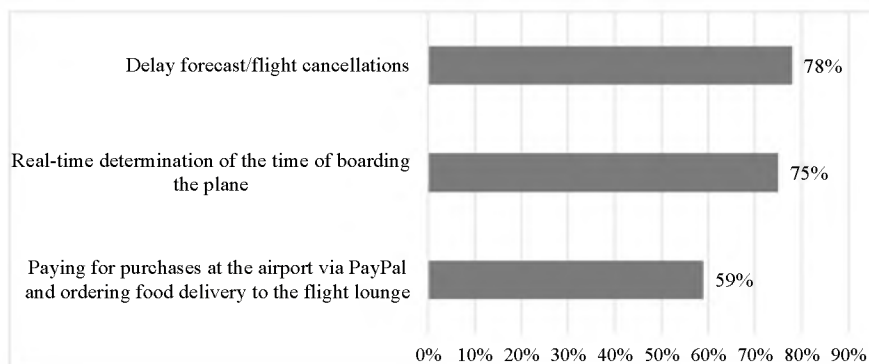


Fig. 9.2 Consumers' expectations from filling super-applications. *Source* Compiled by the authors based on (Baynazarov, 2020)

- A mobile application about Dagestan operating in online and offline modes that contains information about the infrastructure, where the work of an audio guide is combined with geolocation.

A significant disadvantage of the applications presented on the market is performing a limited number of functions and lack of their collaboration. The development of travel super-applications reflects the requirements of current times, combining online services that are in demand by tourists.

The data of a survey by OAG reflect the following consumers' expectations from super-applications:

- The availability of a service that makes delay forecast or flight cancellations—78%;
- Real-time determination of the time of boarding the plane—75%;
- Paying for purchases at the airport via PayPal and ordering food delivery to the flight lounge—59% (Fig. 9.2).

In future, we can say with a high degree of confidence about the expansion of the capabilities of super-applications and global metasearch engines with a complex of personifying services. A striking example of a super-application presented at the domestic tourism market is MegaFon Travel, which accumulates the selection and booking of bus, train, and air tickets, accommodation facilities, tour purchases, insurance, transfer, and excursion services based on aggregators—Aviasales, Ostrovok.ru, Booking.com, Agoda, and Onlinetours.

9.5 Conclusion

Creating conditions for the formation of a digital tourism ecosystem that will combine a set of services ensuring the promotion of tourist products, their attractiveness, and effective use of destination resources becomes the main task in developing domestic

and inbound tourism. Transition to the digital space is apparent. The development of digital solutions will be characteristic of the entire tourism industry in the near future. Strengthening the processes of digitalization of companies becomes a prerequisite for business success, including based on the personalization of offers, development of online payments, integration of diverse travel content on single platforms by introducing innovations in communication with customers, development of IoT, the introduction of big data technologies, artificial intelligence, etc.

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