

Digitalization is the Main Factor in the Recovery of Tourism in Uzbekistan

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Abstract. Currently, the digital transformation of the tourism industry is taking place in various forms, one of which is the online purchase of dynamically formed packages that reduce the cost of producing the service provided. President of Uzbekistan Shavkat Mirziyoyev noted that the conditions of the pandemic once again proved the importance of digital technologies, and failure to achieve the task of digitalizing sectors of the economy in the next 2-3 years will cost the country 10 years of progress, at a meeting held on May 11, 2020 on the issues of widespread adoption digital economy and e-government. In the process of new reforms, transformations in the field of tourism have become one of the strategic directions for the development of the national economy. Uzbekistan, according to “The Independent”, is one of the nine best and safest countries for tourism in 2022.

Digital technologies are transforming the tourism sector around the world, and allow tourists to identify, customize and purchase tourism products and services. While on the producer side, they play a critical role in the competitiveness of tourism organizations and destinations, as well as providing the tools to develop, manage and disseminate tourism product offerings around the world. Innovative mobile apps, contactless border crossings, smart hotel rooms, ubiquitous QR codes - it looks like travel will never be the same again. What used to be dreams is becoming a reality.

Key words: Factor, restored, tourism, Uzbekistan, technology, pandemic, platforms, applications.

Introduction. The tourism and hospitality industry has been one of the fastest growing sectors of the economy of Uzbekistan in recent years; the rapid integration of the digital transformation of all sectors of the global economy has had a special impact on the speed of the industry's development.

Uzbekistan has a huge potential in attracting tourist flows, but is not ready to move to new niches. And, despite the active integration of digital technologies into the activities of many companies, there are many problems in the development of the tourism and hospitality

industry. A number of problems are identified related to the unwillingness of the industry to provide services to interested categories of people that are associated with technological and innovative equipment, both for the tourism business and, in general, conditions for representatives of low-mobility groups in regions and cities.

Research methodology: when writing the article, we used scientific articles and analytical studies of tourism business specialists using analysis and synthesis methods.

Research results. 2020 can be called a turning point, which changed all forecasts for the development of not only the tourism industry, but the economy as a whole in the country. But despite the crisis and difficult situations, the coronavirus pandemic has brought many useful and interesting technological innovations to the world's tourism industry. For example, Hong Kong International Airport was the first to put into operation smart cleaning robots that destroy bacteria and viruses by 99.99%. South Korea's Incheon International Airport has set up "health kiosks" where robots take people's temperatures. At one of the Qatari airports, thermometry is carried out using robotics and special helmets.

During the pandemic period, mobile applications that allow tourists to register, order and pay for services at hotels, airports, train stations, etc. without contact have also received great development on own mobile device. Such contactless technologies have become popular among tourists and travelers, they have become a part of our daily life for a long time.

The widespread closure of international and internal borders has led to a crisis in the tourism industry. Tourism is one of the sectors most affected by the current crisis. Hotel bookings fell by 75% and passenger traffic fell by more than 90%.

Due to quarantine measures in the republic, more than 1.5 thousand tour operators and 1.2 thousand hotels have suspended their activities, the number of foreign tourists visiting Uzbekistan has decreased by more than 4.5 times, to 1.5 million, and the volume of tourist services has fallen up to 261 million dollars.

But in the fall, the epidemiological situation in the country improved, and from October 1, Uzbekistan allowed inbound tourism. And in this regard, the State Committee of the Republic of Uzbekistan for Tourism Development is working towards the restoration of tourism and has developed the platform "Online Tourism", "Uzbekistan. Safe travel guaranteed), "Nazzar" mobile application in 2021, the digital platform of Uzbekistan's cultural heritage.

Social and economic crises prompted representatives of the domestic tourism business to the fact that the evolution of the travel planning process, the analysis of consumer demand, led producers and consumers of services to the economic benefits of using digital technologies. For example, the Booking.com website contains information about travel planning for 1/3 of tourists using online services and mobile applications. Internet technologies and mobile marketing are expanding the possibilities of the tourism industry. This is necessary in order to maintain the configuration of economic relations of the subjects of the tourism industry in the context of ongoing digitalization, they must move from acting as an intermediary to acting as a generator of new tourism ideas based on the use of the latest digital technologies,

adapting offers for customers and covering all stages and channels interaction with consumers.

The significance of the transition to a digital economy in Uzbekistan is reflected in the Strategy "Digital Uzbekistan 2030" and in measures for its effective implementation, approved by decree of the President of the Republic of Uzbekistan dated October 07, 2020 No. PD-6079 05.10.2020.

For large-scale promotion of positioning in the international market of the tourism potential of Uzbekistan for representatives of the world community, visits to Uzbekistan were organized by 160 representative offices and 30 media outlets from the USA, Japan, Germany, Italy, China, Indonesia, Russia and other countries. A system for issuing double and multiple entry electronic entry visas has been introduced, five new categories of visas have been introduced for certain groups of foreign citizens ("Vatandosh", "Student visa", "Academic visa", "Medical visa", "Pilgrim visa").

The digitalization of the tourism business in Uzbekistan ensures the fullest possible disclosure of the potential of digital technologies through their use in all aspects - processes, products and services, approaches to decision-making. In order for the digital transformation process to be complete, clearly defined business tasks and data with which they will work are necessary. Digital transformation is becoming one of the main drivers of recovery for many domestic companies in the tourism industry in the coming years.

The digital transformation of tourism must be considered on the basis of the intersection of three dimensions:

- a specific business problem;
- availability of data;
- digital technologies;

Digital transformation for the tourism industry means, first of all, what it is:

1. Driver of growth, providing the construction of digital business models through:

- stimulating growth within and outside of the company's core business;
- identifying and creating new digital business models;
- ensuring long-term competitiveness of the company;

2. A tool to improve efficiency based on the transformation of the business operating model to digital technologies through:

- optimization of business processes at all levels and cost reduction;
- rational use of existing competencies and infrastructure of the tourism and hospitality industry;

- transfer of the entire value chain to digital technologies and modernization of the information technology architecture;

3. The basis for breakthrough innovation, which is the basis for the creation of a corporate incubator and venture capital through:

- identify promising opportunities for growth in the future;
- early creation of conditions for access to the latest and complementary technologies;
- positioning as a partner in the long term.

Analysis. However, in order to effectively grow and develop resilience to various crisis situations, companies in the tourism industry must constantly introduce innovative technologies, test them and use the results obtained in order to better adapt and be ready for the challenges of the future. While adopting new technologies is a riskier approach than using legacy systems and devices, we believe the potential opportunities and returns will be significant.

The four technological foundations of the digital development of the tourism industry, on which it is advisable to build the process of digital transformation, traditionally include:

- "big data", implying the explosive growth of opportunities, storage and processing of data in all types of computer systems, the future basis of artificial intelligence;
- sociality - the need to involve a large number of users performing various roles;
- mobility - availability of information from anywhere in the world;
- Cloudiness is an innovative and secure way to store data.

Their combination allows you to significantly reduce the cost of business processes, analytically adapt products to the needs of each specific client, i.e., customize and deliver goods and services at the agreed time and where they are needed.

The three most important effects noted by tourism companies in Uzbekistan that have embarked on the path of digital transformation are cost reduction, improvement in the quality of services and products, and increased productivity.

Digital technologies integrated in the tourism industry include a wide range of:

With the effective introduction of digital technologies in the tourism industry, the capabilities of travel companies are improving, which include:

- increasing the pace of globalization of the tourism sector;
- the emergence of new distribution channels;
- reducing the time for the convergence of the supplier, provided tourism services, and consumers;
- Opportunities for tourism organizations to access open access to the Internet;
- improvement of activities through the use of various mobile applications.

There are seven enlarged digital technologies that are in demand in the processes of progressive and recovery development of the tourism industry and its infrastructure.

1. "Big data" is becoming the main source of competitiveness of travel companies. As Gartner defines it, "Big Data is large volume, high speed and/or diverse information assets that require new forms of processing to enable better decision making and process optimization. As tourists seek more relevant and reliable content, OTA (Firmware Over the Air) updates are increasing their investment in big data analytics. Trusted data capabilities help identify visitors across channels and devices, enabling personalized marketing and customer experiences i.e. customization.

2. Development of the "Internet of things" sphere in tourism, that is, a network consisting of interconnected physical objects (or things) or devices that have built-in sensors and sensors, as well as software that allows interaction of physical things with computer systems and networks. The concept of the "Internet of Things" allows you to improve the quality of life and human activity, the efficiency of production, government services, utilities, etc. The "Internet of Things" technology is extremely useful in the tourism industry, because it can be used to automatically reduce costs and improve the quality-of-service customers without human intervention.

For example, IoT makes it possible to take advantage of intuitive cooking (a smart refrigerator will make changes to your menu) and room ventilation (a smart air conditioner will not forget to cool the room by the time you come home from a tour). In addition, tourists will be able to give voice commands, for example, by turning on the light in the room. And if they forget their room key, it won't be a problem either — the digital key in the mobile app will help you get into the room, you just have to put your smartphone on the door.

3. Digital platforms relevant in the tourism industry. Digital technologies have become the basis for creating new products, values, properties and, accordingly, the basis for obtaining competitive advantages in most markets. This transformation leads to the emergence of new, unique systems and processes that make up a new value entity (Booking.com, Airbnb, TripAggregato, Uber, digital banking, etc.) For example, National platforms VR-Tour is a platform that will host 3,600 photographs of tourist sites, a 3D model of museum exhibits using online VR/AR technologies, as well as audio recordings providing information about the objects.

Travelcars Online. The project allows you to make online orders (booking) of vehicles operating in the field of tourism.

Guideme. An online system that allows guides working in the tourism industry, as well as translators, to find their orders.

Trip.uz/Shoot in Uzbekistan. National analogue of booking.com. The project is designed to provide booking opportunities in Uzbekistan and around the world.

Uzhandmade.com. A website that will facilitate the electronic sale of national handicrafts on world markets.

Wedding tourism. Agency "Wedding Tourism", the purpose of which is to organize weddings of foreign citizens in Uzbekistan.

Uzbekistan 360. The Uzbekistan 360 platform, which contains 6,000 photographs of 6,000 objects of tourism, culture, trade and other areas of the country's activities.

Ecotourist. Mobile application for ecotourism. The application will provide tourists from abroad with information products for trips to ecotourism sites, post information about these sites and organize ecotourism services for entrepreneurs in this area.

4. All-in-one super apps for tourists. There are hundreds of websites and mobile apps that can plan and organize trips, but most of them perform one or only a few functions. As a rule, this is the search and purchase of tickets, booking accommodation, car rental. But today, travelers want more: they need entire platforms and super apps that combine many online travel services into one.

5. Distribution of business models of "shared economy" in tourism. The global economy is significantly influenced by the business models of the "general economy", or the economy of "common use", which operates on the basis of "digital" technologies. The idea of this concept is that it is more profitable and convenient for the consumer to pay for temporary access to the product than to own it. The main direction of the new trends in the sharing economy is the tourism and hospitality industry, which not only accepts the principles of sharing, but contributes to their wide distribution and development. Sharing economy as a new economic model, according to experts in the tourism business, is an anti-crisis measure that allows solving modern tourism problems based on the distribution of ownership of values, cost sharing and the ability to create their own extraordinary solutions. The use of these platforms and business models for travel agencies increases their ability to reduce their own costs and improve quality.

Due to the use of "common areas" it becomes possible to quickly implement and commercialize ideas. The most famous travel planning websites are TravBuddy.com, TravelersPoint, TripAdvisor, WAYN, Woopy and Passport Stamp. Of these, TripAdvisor, which was created in 2000 and has collected information on 212,000 hotels, 30,000 destinations and 74,000 tourist attractions, attracts the largest audience.

6. Cloud technologies. Cloud technologies are data processing in which computer resources are provided to an Internet user as an online service (networking). The use of cloud computing begins in 2007 with the advent of Amazon Web Services and Salesforce.com. Microsoft has developed Microsoft Office 365, which includes cloud versions of Exchange Online, Share Point Online and Office Web Apps, as well as Lync Online.

Newhotel Cloud PMS by Newhotel Software S.A. is arguably the most complete cloud-based hospitality management solution on the international market. This system was created to manage such operations as the distribution of rooms, according to quotas, according to contracts with counterparties, control of check-out dates, automatic distribution of rooms, work with group and non-guest accounts, prices, early booking and discounts for long stays, stop sales and control accommodation, cleaning operations.

U-ON system. Travel offers solutions for such tasks as: data warehouse as a service, customer relationship management (CRM), financial and accounting management, business management for the tourism industry.

The Nemo booking system (SaaS solution) is designed specifically for the tourism business. The Nemo system allows you to book flights, hotels, train tickets in all major GDS, it also provides the ability to connect to payment systems. The Nemo system allows customers to book and pay for air tickets online directly on the travel agency's website.

Another trend is smart numbers with voice control, smart security systems and face recognition. With the help of cloud storage, hoteliers collect information about the client and “set up” the rooms for each in advance.

7. Virtualization of physical infrastructure IT systems and the transition to service models. Virtualization can significantly reduce the amount of initial capital costs for deploying the necessary digital infrastructure through the use of "cloud" technologies and software architecture (software-defined architecture). The technology allows you to rent computing capabilities and services based on the needs of a particular business process. The user has the ability to quickly access the service and rent the necessary capacities for the required time at protected and technological sites. VR and AR are increasingly used in the travel and tourism industry, in the case of VR, several hotel chains are experimenting with allowing customers to virtually recreate their hotel rooms during the booking process before they ever physically set foot in them, allowing for more informed choices.

8. Gamification with digital tools. However, as the digital landscape expands its horizons, an increasing number of organizations are starting to use gamification through digital tools. As a result, hospitality decision makers are looking for new and innovative ways to stay ahead of trends.

For example, Hilton Hotels in Tashkent uses an interactive game in training for hotel staff. Using augmented reality, everyday situations were simulated to test how employees behave with customers. Players were given points based on how well they did on tasks, as well as guest feedback. This helped improve the service, which was also appreciated by hotel guests.

9. Chatbots and artificial intelligence (AI) are one of the most exciting digital trends of recent times. The use of chatbots is a technology that has become a real breakthrough in customer service and can be used by the travel industry to provide fast responses to key traveler inquiries. It is important to note that chatbots can respond quickly even in the middle of the night.

Perhaps the most prominent example of this so far has been the joint Hilton and IBM project that resulted in "Connie", an AI-driven customer service robot that is able to respond to human speech, learn from interactions and provide travel information. The tour operator of the future is a “digital platform” that provides the client with a full range of services, as well as a set of technologies with which he himself can “design” a tour.

10. Mobile applications. One of the modern forms of digitalization of tourism is mobile applications for cell phones. These applications are not only useful, but also necessary for the implementation of tourist travel. Forecast data from a new application for analyzing the development of mobile applications App Annie shows that in 2022 the turnover of the mobile application market will reach 6.3 trillion dollars. For comparison, in 2016 this figure was 1.3 trillion dollars. The driver of growth in the volume of purchases of goods and services in hypermarkets, taxi services and travel applications will be users who "link" their cards to applications.

Conclusion and suggestions. Uzbekistan is one of the promising states in terms of tourism development, since in their forecasts international experts take into account the growth dynamics of various forms of tourism and the development of tourism products. Many states consider this sector as a lever that contributes to the replenishment of foreign exchange items of income. The Government of Uzbekistan continues to provide all possible support to the development of this industry.

And in accordance with the directions of the "Development Strategy of the New Uzbekistan for 2022-2026", the number of local tourists should increase to 12 million, and foreign tourists - up to 9 million as part of the "Travel Uzbekistan" program.

In conclusion, it should be noted about the accelerated need for the tourism industry of Uzbekistan to transform their business models through innovation and digitalization. And in connection with this fact, foreign investors are showing increased attention to the tourism sector of Uzbekistan today. According to the investment program for 2020-2022, it is planned to attract 904.6 million dollars to the industry, of which 885 million dollars will go to new construction. As investment advantages of the republic, the Agency for Attracting Foreign Investments notes security, more than 9 thousand attractions, free tourist and economic zones and the improvement of current legislation in the field of tourism.

Digitalization and personalization - these trends determine the development of tourism in the near future. New digital technologies are being developed and gadgets are being created that make travel easier and bring new experiences. The tourist will no longer have to judge the upcoming trip by the reviews of other people, he will use the virtual reality system. Today, for international travel, it is important to create a "digital health passport" of the passenger, which stores medical certificates and confirmed COVID status. This will shorten the queues when checking in at the airport

Since the summer of 2021, Emirates has been one of the first airlines in the world to introduce "digital passports" with traveler health information in the IATA Travel Pass mobile app. According to the report, by 2024 one of the priorities will be a significant increase in spending on digitalization. Most airlines (84%) and airports (81%) will spend heavily on passenger transportation automation in 2022. In particular, they invest in the development of a digital health check system through mobile applications of airlines (51%) or using self-service kiosks (45%).

And as a result of the end of the analysis and research of the topic of our article, we want to offer, as information for reflection, an analysis of the demand for digital platforms among tourists. conducted by Google analysts.

By 2023, 700 million people will book their hotel rooms online.

- 33% of consumers say they have used a virtual travel assistant to help organize and plan their next trip.
- 72% of mobile bookings happen within 48 hours of the last Google search.
- Every year, 148.3 million travel bookings are made via the Internet.
- Globally, online spending on airline tickets grew by 11 billion dollars (+6.8%) in 2021, reaching a total of 173 billion dollars for the year.
- At the same time, the share of online hotel bookings grew even more: global revenues in the category grew by 45% compared to last year.

Overall, the online travel booking market share is 63% of the 1.2 trillion dollars generated by the travel industry every year. The majority of people (82%) who book travel online do so via a website or mobile app and prefer to book on a Monday.

Nielsen researchers have proven that tourists spend 53 days a year visiting 28 travel-related websites. At the same time, about 50% of users turn their opinions to the experience of other people and look for recommendations on how best to organize a trip.

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