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MODERN INFORMATION TECHNOLOGIES: A PATH TO SUSTAINABLE TOURISM DESTINATION MANAGEMENT

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Abstract

The article deals with modern problems of the tourism sector. The application of various types of information technologies that can be used in tourism is studied and proposals for expanding the classification features are given. The most popular information services used in tourism are studied, their advantages are indicated and the role they play in the management of the tourism sector is determined. The international information services of the tourism market are studied and their economic performance indicators are investigated. The necessity of introducing innovative information technologies in the field of tourism is substantiated, since they will lead to effective innovative promotion of the tourism product and comprehensive market development, taking into account the economic situation in the country. It is proved that innovative approaches contribute to the integration of information technologies in the field of tourism, in particular, by ensuring safety, mobility, convenience, development of tourist products and cooperation between territorial communities.

Keywords: smart tourism, digitalization, tourism management, sustainable development of territories

1 Introduction

Globalization processes contribute to the development of the tourism industry, which contributes to the economic and social development of the country, in particular, to the creation of new jobs, increased employment, growth of state revenues, business development, and increased foreign exchange earnings. However, due to the military aggression, the country's tourism industry has faced serious challenges, including a difficult security situation, closed airspace, disruption of logistics transport links, etc.

2 Review of research

As a rule, crisis situations (Covid, martial law) encourage the implementation of new projects based on modern innovative computer technologies.

Information systems in tourism, especially in a fiercely competitive environment, not only contribute to the development of the industry, but also ensure the provision of quality services, taking into account the preferences of tourists and their financial capabilities. The use of various classes and types of information technologies in tourism is conditioned by ensuring the identification of innovative solutions that allow for the active development of the tourism services market. Therefore, we believe that it is advisable to expand the classification criteria, namely:

- by the field of activity: global, national and regional information systems;
- by the functional purpose: social, cultural, educational, financial and economic, marketing, etc;
- by automation: process management, automation of information systems, integration solutions;
- by the application area: systems for designing tourist facilities, organizational management, technological management, etc.

It should be noted that IT technologies are already quite actively used in the tourism sector. Currently, the following services demonstrate a high level of development and popularity among users: Trip Advisor, Yelp – a platform that, based on user reviews, generates recommendations on the availability of restaurants, hotels, services, and tourist attractions; Skyscanner, Booking.com – systems for searching and booking tickets and hotels, taking into account the personal preferences of users; Google Maps – used for route planning, thanks to mapping services, you can plan the most optimal travel routes. We should also mention systems for simultaneous translation, which can include up to 40 languages (Pilot, Bragi Dash Pro, Timekettle WT2 Plus).

Ride-sharing services also play an important role, including Uber, a taxi service, and BlaBlaCar: Uber – taxi services, Airbnb – a platform for short-term rental housing, BlaBlaCar – a platform for finding hitchhikers, City Bike and others – bicycle rental systems in cities [1].

Global distribution systems (GDS) play a key role in the travel industry, providing fast and efficient booking of various services. The international travel IT market is dominated by four major GDS systems, namely: Worldspan, Sabre, Galileo, and Amadeus. Their performance indicators are shown in Table 1.

At the present stage, the introduction of innovative information technologies in the tourism sector increases the effective innovative promotion of the tourism product and integrated market development, taking into account the country's economic processes. This not only increases business profitability, but also stimulates the local economy, reducing dependence on external resources and

strengthening economic security. Such technological solutions include not only virtual travel and global booking systems, but also electronic business (e-business), which can significantly reduce transaction costs for enterprises and organizations in the tourism sector.

Table 1

GDS performance indicators [2]

Indicator	Sabre	World span	Galileo	Amadeus
Staff	9000	3200	No data	3654
Distribution by travel agencies	59000	20210 in 60 countries	52000 in 116 countries	54405 in 198 countries
Profit, billion /euros	2,5 dollars	No data	1,6 dollars	1.6 euros
Number of bookings, million	467,1	No data	345,1	394
Suppliers: airlines/hotels/car rental companies	450/53000/54	533/47000/45	425/60000/23	480/54641/47

As we can see, in the current conditions of tourist destination development, it is necessary to focus on digitalization, which automates management and service processes at the local, regional and national levels. The mechanism of interaction of integrated information systems and platforms for implementation in the tourism sector is shown in figures 1[3].

19 It is worth noting that the digitalization of tourism reflects modern technologies, such as holographic interfaces for travel booking, digital maps, routes, as well as virtual reality and artificial intelligence, which help tourists and managers interact to improve the quality of services, the industry and infrastructure in general. Such synergy leads to the transformation of tourism into a smart system that is safe and economical for the consumer, the concept of which is shown in Figure 2.

According to the figure, we can say that modern tourism uses the latest technologies, such as artificial intelligence, databases, the Internet, and mobile applications to improve the tourist experience.

7 Conclusions

The development of any tourist destination largely depends on the effectiveness of management. And management approaches should take into account all current situations, both negative and positive, and focus on development, not stand still. Therefore, innovative and information technologies implemented in the tourism market should be harmoniously combined, actually forming a mechanism of interaction “consumer-management-situation”. Innovative approaches facilitate the integration of information technologies to ensure the safety, mobility and convenience of

tourists' movement, the development of tourism products focused on minimizing the ecological footprint, cooperation with local communities, etc.

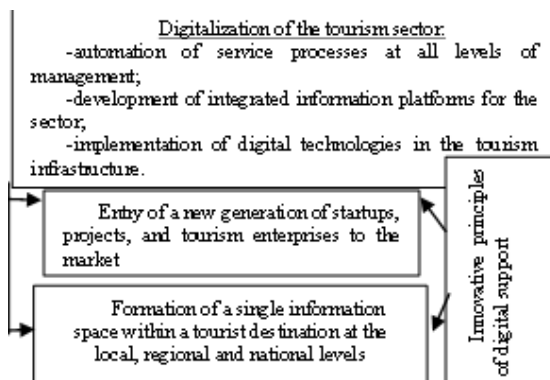


Figure 1. Digitalization of the tourism industry

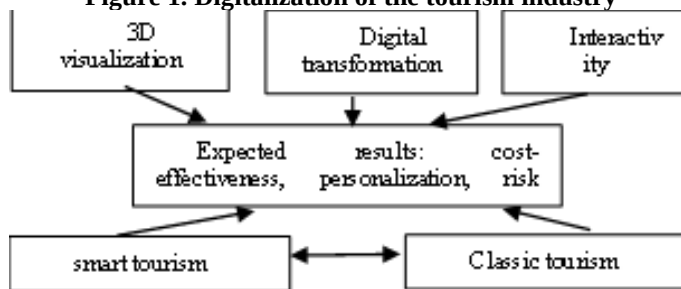


Figure 2. The mechanism of information technology and the tourism industry

The use of digital technologies in combination with innovative management approaches will ensure the long-term development of the industry, preservation of cultural heritage and natural resources, and create a harmonious balance between tourism growth and its environmental and social responsibility.

Therefore, the role played by information technology and digitalization today is quite significant and important for the functioning of tourist destinations, and in the future it will be impossible to imagine any field of activity without them..

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