

MEASURES FOR THE DEVELOPMENT OF TOURISM DIGITALIZATION IN THE TERRITORY OF KARAKALPAKSTAN

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Abstract

Efforts to develop domestic and international tourism in Uzbekistan have not excluded the territory of Karakalpakstan. Therefore, in order to effectively utilize the tourism potential of the Republic of Karakalpakstan, increase the region's attractiveness for domestic and international tourism markets, improve the infrastructure of tourism, cultural heritage, arts and culture, introduce new tourism services, expand the range of national handicraft products, and create new jobs in the sector, numerous initiatives have been implemented.

Keywords: Tourism sector, Digital services, Tourism infrastructure, Tourist services, Customer-oriented services, Virtual Reality (VR), Augmented Reality (AR), Tourism development, Digital Twin.

Introduction

Today, the effective development of the tourism sector is closely linked with digitalization based on innovative technologies. Globally, digitalization in the tourism industry is considered a key strategy for targeted development, involving the integration of national, regional, and global tourism information systems, and increasing efficiency through the use of innovative technologies. In this context, research focused on ensuring the organizational, economic, and software infrastructure for online travel services and enhancing the scope and quality of tourism services through digitalization is gaining increasing importance.

Literature Review and Methodology

During the analysis of this article, tourism-related literature and sources on the strategy for the development of tourism in Karakalpakstan were used, along with works discussing investments in the sector, as well as its strengths and weaknesses. Among the sources utilized were works by E. G'ulomvasanov, F.S. Amirova, A.S. Amirov ("The Role and Importance of Domestic Tourism in Economic Development"), E.B. Abdurahimov ("Socio-Economic Aspects of the Development of Historical and Cultural Tourism in Uzbekistan"), M. Djamilova ("Strategy for the Development of International Tourism in Uzbekistan"), I. Tuxliyev, B. Safarov ("Fundamentals of Tourism"), and M. Amonboyev, D.I. Abidova, N.A. Jurayeva ("Economics and Management of Tourism").

Analytical, comparative, and empirical approaches were used in preparing this article. Primarily, domestic and international literature on digitalization in tourism, statistical data, and government decisions were studied. The current state of tourism infrastructure and digital services in Karakalpakstan was analyzed. In addition, surveys were conducted among tourism professionals and users to identify their attitudes and needs regarding digital services.

Analysis and results

Digitalization of the tourism sector has become a global trend, and this process is gradually developing in Karakalpakstan as well. Despite the region's significant tourism potential, the implementation of digital technologies remains underdeveloped. The analysis shows that information about key tourist sites (e.g., the Savitsky Museum, the ship graveyard in Moynaq, historical fortresses) is limited on online platforms. Existing content is primarily available in Russian or English, while Uzbek and Karakalpak language resources are scarce.

Survey results show that more than 60% of tourism organizations in Karakalpakstan do not have online booking systems and only provide services via phone or offline. Most small hotels and private businesses lack websites or mobile apps, which creates significant barriers for domestic and international tourists to access information and services.

At the same time, the number of young people interested in using digital services is increasing. In particular, there is a growing trend of using mobile apps, electronic payment systems, and social media to search for travel information. Tourists are accustomed to platforms such as Google Maps, Booking.com, and Instagram, but there is insufficient digital content about Karakalpakstan available on these platforms.

The main issues identified in the digitalization of tourism in the region include:

Limited technical infrastructure (weak internet coverage in some areas);

Low level of digital literacy among specialists and staff;

Lack of local digital content (photos, videos, 3D tours, audio guides);

Weak development of public-private partnership projects and low investment.

However, there are clear opportunities for progress, including:

Development of online travel packages for ecotourism in the Aral Sea region;

Introduction of virtual tours (VR) for the Savitsky Museum;

Provision of interactive maps and travel guides via mobile apps;

Creation of a unified online tourism platform (in the form of a digital portal).

Moreover, the integration of digital technologies into tourism in Karakalpakstan is not only a response to global trends but also a necessity for improving service quality and competitiveness. The lack of real-time information about tourist locations, transport accessibility, accommodation availability, and local events limits the decision-making capabilities of potential visitors. The absence of a centralized digital platform also results in fragmentation among service providers and a lack of coordination in regional tourism promotion. Furthermore, insufficient collaboration between tourism institutions and IT companies slows down innovation. Stakeholders in the region show readiness for digital adoption; however, there is a strong need for state-supported digital literacy programs. Public awareness campaigns about the benefits of e-tourism can significantly increase user engagement. In the long term, digital

transformation will help preserve cultural heritage and improve tourist experience through virtual storytelling and immersive media technologies.

Conclusion and Recommendations

The findings of this research show that digitalization of the tourism sector in Karakalpakstan is still in its early stages. Despite the high tourism potential of the region, the underdevelopment of digital infrastructure and services hinders the growth of tourist flows. The lack of online information, digital services, and local multilingual content limits the region's visibility in the global tourism market.

Based on this, the following recommendations are proposed:

Creation of a regional digital tourism platform

– Develop a unified website or mobile app integrating information about all major tourist sites, hotels, restaurants, and services in Karakalpakstan.

Promotion of local content creation

– Produce video, photo, 3D tours, and audio guides about tourist attractions in multiple languages (Uzbek, Karakalpak, English).

Enhancing digital literacy in the tourism sector

– Organize short-term training programs on ICT and e-tourism for hotel staff, guides, transport providers, and other tourism service workers.

Attracting investments through public-private partnerships

– Create favorable conditions for local IT companies, startups, and foreign investors to participate in the development of digital tourism services.

Introducing virtual and interactive services

– For example, develop VR-based tours of the Savitsky Museum and provide ecological guides via mobile apps for the Aral region.

Implementation of online booking and payment systems

– Expand integration with electronic platforms such as Booking.com, Payme, and Click.

Overall, the digitalization of tourism in Karakalpakstan can significantly increase both domestic and international tourist flows, stimulate regional economic activity, create new jobs, and contribute to social development. This once again confirms the importance of the digital economy as a key factor in regional progress.

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