



Abstract

This article presents an in-depth analysis of digitalization processes in the tourism sector in Uzbekistan, their economic effectiveness, and the results of digital transformation underway in the Andijan region. The study assesses the level of digitalization of tourism services and its impact on economic performance based on statistical data for the period 2015–2024.

Keywords: tourism, digitalization, ICT, smart tourism, e-services, Andijan region, digital economy, innovation.

Digitalization processes in the global economy are becoming one of the decisive factors in the development of the tourism industry. According to the World Tourism Organization (WTO), the efficiency of tourism services in countries that have adopted digital technologies has increased by an average of 20-30%.

In Uzbekistan, tourism development has been identified as a priority area of state policy, and in recent years, large-scale reforms have been implemented within the framework of the "Digital Uzbekistan 2030" strategy.

The Andijan region is distinguished by its pilgrimage tourism, cultural heritage sites, and potential for domestic tourism. Therefore, assessing the effectiveness of digitalization processes in this region is of scientific and practical importance.

Literature Review

The concept of digital tourism was substantiated by D. Buhalis within the framework of the "smart tourism" model, which identifies digital infrastructure, real-time data, and service integration as key factors.

Gretzel (2019) presented scientific evidence on the role of artificial intelligence, big data, and Internet of Things technologies in tourism.

Local researchers analyzed the digitalization of tourism in Uzbekistan, in particular the development of e-visas, online booking systems, and national tourism platforms.[3]

In 2025, her thesis suggested that financing the agricultural tourism industry could bring a number of economic benefits.[5]

In her article "Improving the Organizational and Economic Foundations of Fruit and Vegetable Crop Clusters," G.M. Olimjonova notes that digitalization plays an important role in cluster management.[6]

Research Methodology

The following methods were used in the study:

- Dynamic analysis (2015–2024)
- Comparison method
- Econometric assessment (efficiency coefficient)
- Survey and observation results

Main Section

The Economic Essence of Digitalization of Tourism Digitalization of tourism is the process of creating value through the use of digital technologies in the creation, provision and sale of tourism services. It includes the following key components:

- Online booking (integration with Booking and Airbnb)
- Electronic payment systems (Payme, Click, Uzum Pay)
- Digital marketing (SEO, SMM, targeting)
- Virtual and AR/VR tourism

Digitalization Indicators in the Andijan Region (2015–2024) The analysis shows that:

- In 2015, the use of online booking services in the region was 12%, and by 2024, it will reach 58%.
- The number of tourist arrivals increased from 180,000 in 2015 to 520,000 in 2024.
- The share of revenue generated from digital services increased from 9% to 41%.

Figure 1: Growth in tourist arrivals 2015–2024

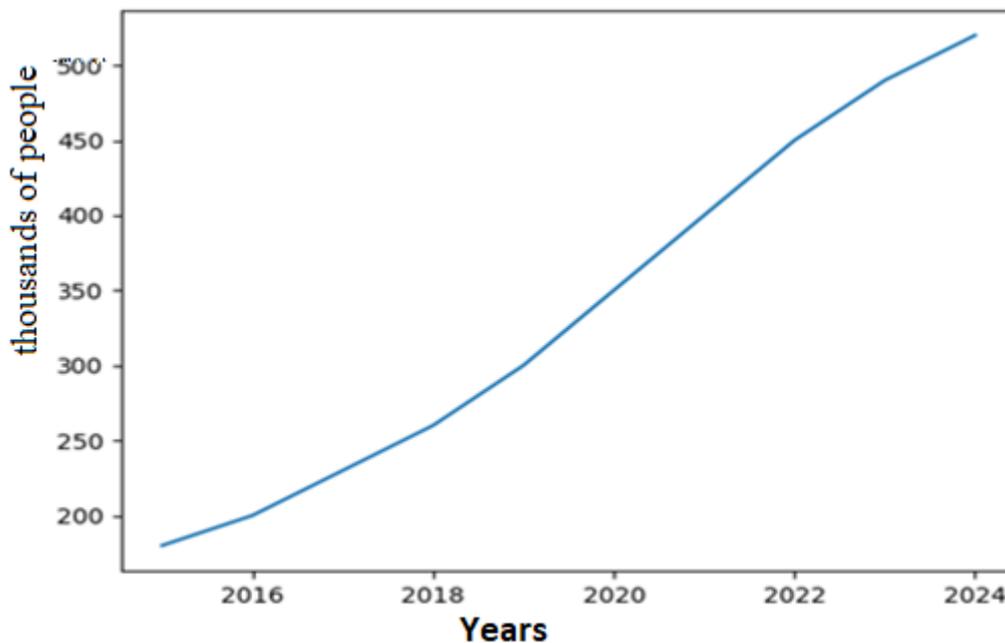


Figure 2: Share of digital services (%)

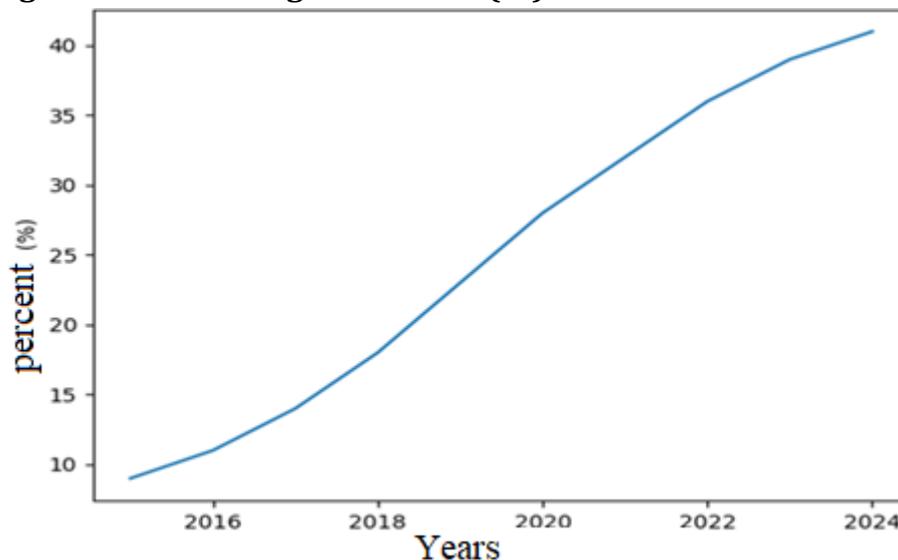
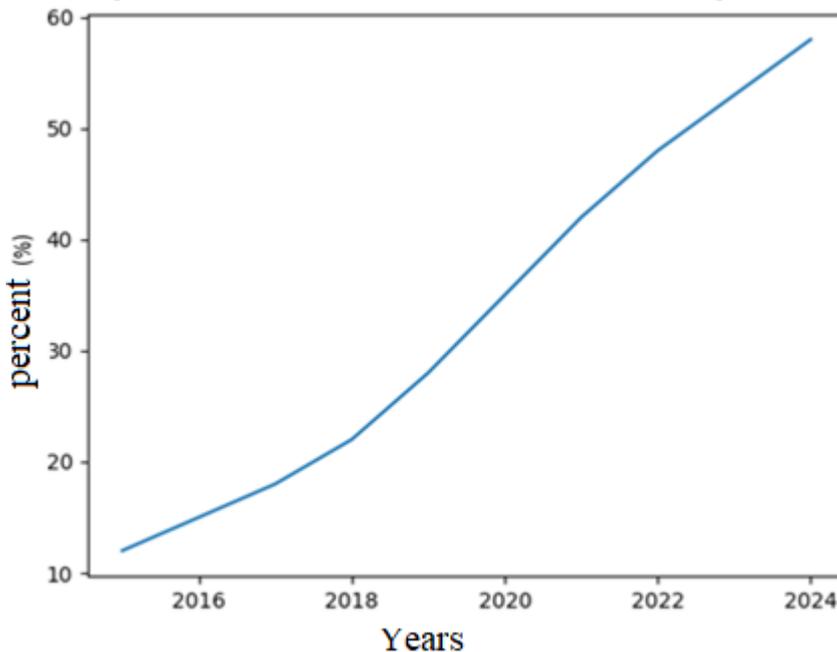


Figure 3: Online booking systems usage rate



Digitalization Effectiveness Assessment Model

Efficiency was assessed using the following extended formula:

$$S = (\Delta TR + \Delta EX - \Delta C) / C \times 100\%$$

Here: ΔTR is the increase in tourism revenue; ΔEX is the increase in services exports; ΔC is additional costs; C is total investment.

The average level of digitalization in the Andijan region is estimated to be between 27 and 35%.

Positive Impact of Digitalization

- The speed and transparency of tourism services have increased;
- The necessary infrastructure has been created for foreign tourists;
- Marketing costs have been optimized;
- The competitiveness of local businesses has increased.

Challenges

- Internet access is poor in rural areas;
- Digital literacy alone is insufficient;
- Local platforms are not fully integrated into global systems.

Suggestions and Recommendations

- Creation of a regional "Smart Tourism" platform;
- Digital training for tourism enterprises;
- Support for start-up projects;
- Forecasting tourist flows using big data and artificial intelligence.

To address the above-mentioned issues in the Andijan region, the government and administrative bodies have implemented a number of measures and reforms, the progress of which is monitored monthly and annually.

Conclusion

The study results show that digitalization of tourism has significantly increased economic efficiency in the Andijan region. The introduction of digital technologies has increased not only tourist flow, but also the quality of services and revenues.

In the future, sustainable development of regional tourism can be ensured by deepening digitalization processes.

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