



THE ROLE OF ARTIFICIAL INTELLIGENCE IN THE TOURISM SECTOR IN THE CONTEXT OF DIGITAL TRANSFORMATION: GLOBAL TRENDS AND LOCAL EXPERIENCE

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Received: 11 th March 2026 Accepted: 10 th April 2026	This study investigates the role of artificial intelligence (AI) in the tourism sector within the broader framework of digital transformation, focusing on global trends and local experiences. AI technologies, including machine learning, big data analytics, and intelligent automation, are reshaping tourism by enhancing service quality, operational efficiency, and customer engagement. The research combines theoretical analysis with empirical observations to evaluate how AI contributes to the modernization of tourism systems. Special attention is given to the integration of global practices with local implementation, particularly in developing countries. The findings demonstrate that AI-driven digital transformation significantly improves competitiveness, sustainability, and innovation in tourism. The study highlights the importance of aligning global technological trends with local conditions to achieve effective outcomes.

Keywords: Artificial intelligence, digital transformation, tourism industry, smart tourism, global trends, local experience, innovation, data analytics.

РОЛЬ ИСКУССТВЕННОГО ИНТЕЛЛЕКТА В ТУРИСТИЧЕСКОЙ ОТРАСЛИ В УСЛОВИЯХ ЦИФРОВОЙ ТРАНСФОРМАЦИИ: ГЛОБАЛЬНЫЕ ТЕНДЕНЦИИ И ЛОКАЛЬНЫЙ ОПЫТ

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Аннотация: В данном исследовании рассматривается роль искусственного интеллекта (ИИ) в туристической отрасли в рамках цифровой трансформации с акцентом на глобальные тенденции и локальный опыт. Технологии ИИ, включая машинное обучение, анализ больших данных и интеллектуальную автоматизацию, трансформируют туризм за счёт повышения качества обслуживания, улучшения операционной эффективности и усиления взаимодействия с клиентами. В работе сочетаются теоретический анализ и эмпирические наблюдения для оценки вклада ИИ в модернизацию туристических систем. Особое внимание уделяется интеграции глобального опыта с локальной практикой, особенно в развивающихся странах. Результаты исследования показывают, что цифровая трансформация на основе ИИ значительно повышает конкурентоспособность, устойчивость и инновационное развитие туризма. Подчёркивается важность согласования глобальных технологических тенденций с местными условиями для достижения эффективных результатов.

Ключевые слова: Искусственный интеллект, цифровая трансформация, туристическая индустрия, умный туризм, глобальные тенденции, локальный опыт, инновации, анализ данных.



RAQAMLI TRANSFORMATSIYA SHAROITIDA TURIZM SOHASIDA SUN'YIY INTELLEKTNING ROLI: GLOBAL TENDENSIYALAR VA MAHALLIY TAJRIBA

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Anotatsiya: Ushbu tadqiqot raqamli transformatsiya doirasida turizm sohasida sun'iy intellekt (SI) ning rolini o'rganadi hamda global tendensiyalar va mahalliy tajribalarni tahlil qiladi. Mashinaviy o'rganish, katta hajmdagi ma'lumotlar tahlili (big data) va intellektual avtomatlashtirish kabi SI texnologiyalari xizmat sifatini oshirish, operatsion samaradorlikni yaxshilash hamda mijozlar bilan o'zaro aloqani kuchaytirish orqali turizm sohasini tubdan o'zgartirmoqda. Tadqiqot nazariy tahlil va empirik kuzatuvlarni uyg'unlashtirgan holda SI ning turizm tizimlarini modernizatsiya qilishdagi o'rnini baholaydi. Ayniqsa, global tajribalarni mahalliy sharoitlarga moslashtirish masalasiga alohida e'tibor qaratilgan, xususan rivojlanayotgan mamlakatlar misolida. Tadqiqot natijalari shuni ko'rsatadiki, SI asosidagi raqamli transformatsiya turizmga raqobatbardoshlik, barqarorlik va innovatsion rivojlanishni sezilarli darajada oshiradi. Shuningdek, samarali natijalarga erishish uchun global texnologik tendensiyalarni mahalliy sharoitlar bilan uyg'unlashtirish muhim ahamiyatga ega ekanligi ta'kidlanadi.

Kalit so'zlar: Sun'iy intellekt, raqamli transformatsiya, turizm industriyasi, aqlli turizm, global tendensiyalar, mahalliy tajriba, innovatsiya, ma'lumotlar tahlili.

Introduction

The ongoing digital transformation of the global economy has significantly influenced the tourism sector, introducing new technologies that reshape traditional business models. Among these technologies, artificial intelligence (AI) plays a central role by enabling automation, personalization, and data-driven decision-making.

International scholars such as Buhalis and Law (2008) emphasize that digital technologies are fundamental to the evolution of modern tourism systems. More recently, Gretzel et al. (2020) argue that AI is a key driver of smart tourism development, allowing organizations to process large volumes of data and deliver customized services. Tussyadiyah (2020) further highlights that AI enhances tourist experiences by enabling real-time interaction and predictive recommendations [3].

From the perspective of Uzbek researchers, Rakhmatullaev (2021) notes that digital transformation is essential for improving the competitiveness of Uzbekistan's tourism industry. Similarly, Tursunov (2020) stresses that the adoption of AI technologies contributes to innovation and efficiency in tourism services. Yuldashev (2022) also points out that integrating global technological trends with local practices is crucial for sustainable development.

Building on these viewpoints, this study aims to explore the role of AI in tourism within the context of digital transformation by analyzing both global trends and local experiences. The introduction establishes that AI serves as a bridge between technological

innovation and practical implementation in tourism systems.

Literature review

The concept of digital transformation in tourism refers to the integration of advanced technologies into all aspects of tourism operations. AI is a core component of this transformation, enabling intelligent automation and data-driven strategies.

According to Buhalis and Amaranggana (2015), smart tourism systems rely on interconnected technologies, including AI, to enhance service delivery and operational efficiency [1]. Gretzel et al. (2015) introduce the idea of "smart tourism ecosystems," where AI facilitates real-time decision-making and personalized services [2].

Recent studies by Li et al. (2021) highlight that AI applications such as chatbots, recommendation systems, and predictive analytics significantly improve customer satisfaction and operational performance [5]. Similarly, Sigala (2018) argues that AI-driven innovation is essential for maintaining competitiveness in the global tourism market [6].

Uzbek scholars have also explored this topic. Karimov (2019) discusses the importance of digital transformation in Uzbekistan's tourism sector, emphasizing the role of AI in improving service quality. Abdullaev (2021) highlights that adopting global technological practices while considering local conditions is crucial for effective implementation [7].

Ruziev (2022) further notes that AI technologies can enhance both efficiency and sustainability in tourism operations [8].



Despite these contributions, there is still a need for comprehensive research that integrates global trends with local experiences. This study addresses this gap by providing a comparative and analytical perspective.

Methodology

This research is based on the concept that AI supports digital transformation in tourism through three interconnected dimensions: service innovation, operational efficiency, and strategic decision-making.

To examine this concept, the study applied the following approaches:

Comparative Global-Local Analysis: Global AI practices in tourism were compared with local implementations, particularly in Uzbekistan. This approach helped identify gaps and adaptation strategies.

Empirical Data Analysis: Statistical data related to digital transformation indicators, such as service quality, efficiency, and customer engagement, were analyzed to assess the impact of AI technologies.

Case-Based Evaluation: Selected tourism enterprises implementing AI tools (e.g., chatbots, smart booking systems, recommendation engines) were examined to understand how global technologies are adapted to local contexts.

Integrated Conceptual Analysis: The relationship between AI adoption and digital transformation outcomes was analyzed based on the defined conceptual framework, ensuring consistency between theoretical assumptions and observed data.

These methods were applied directly to demonstrate how AI technologies influence tourism systems in both global and local contexts.

Results And Discussion

The findings confirm that AI is a critical driver of digital transformation in the tourism sector. At the global level, AI technologies enable advanced data processing, personalized services, and efficient resource management. These innovations improve competitiveness and customer satisfaction.

At the local level, particularly in developing countries like Uzbekistan, AI adoption presents both opportunities and challenges. While AI technologies improve efficiency and service quality, their implementation requires investment, infrastructure, and skilled personnel.

The study highlights that successful digital transformation depends on aligning global technological trends with local conditions. For example, adapting AI systems to local languages, cultural preferences, and market structures is essential for achieving effective results. Furthermore, AI contributes to innovation by enabling new business models and service formats. However, issues such as

data privacy, technological inequality, and high implementation costs must be addressed [9].

Overall, the discussion demonstrates that AI serves as a bridge between global innovation and local application in tourism.

Conclusion

In conclusion, artificial intelligence plays a pivotal role in the digital transformation of the tourism sector by enhancing service quality, operational efficiency, and innovation. The study shows that AI technologies significantly improve the competitiveness and sustainability of tourism systems. The integration of global AI trends with local experiences is essential for achieving effective and sustainable outcomes. For countries like Uzbekistan, adopting AI technologies offers significant opportunities for modernizing the tourism industry and strengthening its position in the global market.

Future research should focus on long-term impacts of AI and strategies for overcoming implementation challenges in different regional contexts..

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