

Artificial Intelligence and Personalization in Tourism: The Impact of Digital Transformation on Customer Experience

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Abstract

Digital transformation is currently one of the most significant driving forces in the tourism industry, fundamentally reshaping both service delivery models and the process of forming customer experiences. Modern technological progress, particularly the rapid development of artificial intelligence (AI), enables tourism companies to respond more effectively to individual customer needs and to create high-quality, personalized services.

In this context, modern approaches to personalization play a crucial role in analyzing traveler behavior, anticipating their needs, and designing relevant offerings. Artificial intelligence tools-including generative models, chatbots, and recommendation systems-enhance customer experience and increase satisfaction levels.

The aim of this study is to assess the impact of digital transformation on customer experience and to define the role of artificial intelligence and personalization in the tourism industry. Methodologically, the research is based on a systematic analysis of the latest international academic sources.

The findings indicate that the integration of AI improves service efficiency, reduces costs, and increases customer satisfaction; however, it also raises challenges related to privacy and ethics. The study highlights the importance of hybrid integration between humans and technology to ensure a sustainable customer experience.

Keywords: digital transformation, artificial intelligence, personalization, tourism, customer experience

1. Introduction

Tourism is one of the fastest-developing industries in the world, where in today's competitive environment digital technologies have a significant impact. Digital transformation not only changes the methods of service delivery, but also facilitates the formation of new business models, increases customer satisfaction, and strengthens the competitiveness of brands.

Artificial intelligence (AI) and personalization in tourism create important opportunities for forecasting customer demands and making individually tailored offers. Smart Tourism can encompass various digital platforms, sensors, and data analytics, which further improves customer experience and personalized service. The integration of Smart Tourism, personalization, and AI significantly improves the quality of service, ensures a rapid response to customer needs, and increases the operational efficiency of business.

Digital transformation also implies changes in customer behavior, values, and communication style. As a result, contemporary tourism companies are becoming not only technologically advanced, but also more customer-oriented.

2. Aim of the Research

The aim of the research is:

- To study the impact of digital transformation on customer experience in tourism;
- To identify the practical achievements and challenges of AI and personalization;
- To prepare a foundation for future long-term research and the development of innovative approaches in the tourism sector.

3. Literature Review

3.1 Artificial Intelligence and Personalization in Tourism

Artificial intelligence (AI) and personalization are important innovative tools in the tourism industry for improving customer experience. Siqi Wang & Qingjin Wang (2025), in a systematic review, show that the use of AI enables tourism companies to analyze customer behavior, anticipate their needs, and develop personalized offers. The authors emphasize that generative AI models, chatbots, and recommendation systems increase the efficiency of service and customer satisfaction, which significantly strengthens the competitiveness of brands. The concept of Smart Tourism emphasizes that the integration of technologies — AI, IoT, Big Data — creates an intelligent tourism environment that responds to individual demands and ensures personalized service (Wang & Wang, 2025).

Shin et al. (2026) focus attention on the types of service innovation that are made possible through the integration of generative AI. They note that AI can improve the personalization of service, ensure a rapid response to customer demands, and create new business opportunities in tourism.

Rasulova (2025) focuses on personalized approaches and emphasizes that individually tailored service not only increases customer satisfaction but also strengthens their loyalty. The author argues that the effectiveness of personalization is particularly high in those services where the customer actively participates in the decision-making process.

Dang & Nguyen (2023) note that the integration of AI and personalization in the tourism and hospitality sector facilitates growth in operational efficiency, cost reduction, and the creation of customer-oriented service. Their review shows that the use of innovative technologies is particularly important in SMEs, since it enables small and medium-sized companies to compete in the global market.

3.2 Customer Values and the Impact of Transformation

Digital transformation is not confined to technological updates alone — it unfolds the dynamic changes in customer demands. Wang & Wang (2025) emphasize that customer expectations include rapid service, personalized communication, multi-channel support, and remote experience. The hybrid integration of AI and personalization will create an environment of sustainable customer experience, in which technology and human beings participate equally in the creation of service.

Shin et al. (2026) argue that new customer expectations create demand for the integration of innovative technologies, including AI, in order to ensure high-quality and individualized service. This indicates that technological progress alone is not sufficient — customer-oriented business strategies are needed.

4. Methodology

The research is based on a systematic literature review, which encompasses the latest studies from the period 2019–2026, drawn from international databases, including Scopus, Web of Science, and other recognized academic resources. In the selection process, specific criteria were used, such as the reliability of the research, the quality of the publication, and thematic relevance to the directions of artificial intelligence, personalization, digital transformation, customer experience, and service innovation in the field of tourism.

The analysis is oriented toward both theoretical and practical approaches, which enables the study to identify successful business practices, opportunities and challenges of technological integration, including the observance of ethical norms, the confidentiality of personal data, and the protection of customer rights.

At the same time, the systematic analysis ensures a critical assessment of the relevant scientific data, which makes it possible to highlight the important aspects of the research, the effectiveness of personalization in various tourism contexts, and the best practices of the hybrid integration of AI. The methodological approach devotes particular attention to international experience, which ensures a broader and more complete view in assessing the impact of digital transformation on customer experience in tourism.

5. Main Results and Discussion

AI increases personalization:

Artificial intelligence systems enable tourism companies to create individual offers on the basis of customer data, which not only increases the efficiency of service but also ensures a rapid and precise response to customer needs. A high level of personalization increases customer satisfaction, builds trust with the brand, and facilitates stronger and longer-term relationships with the tourism company.

Customer satisfaction:

The use of personalization significantly increases the level of satisfaction and strengthens customer loyalty. Studies confirm that individually tailored service not only meets customer expectations but also strengthens the brand's image, increases marketing effectiveness, and facilitates the spread of positive customer experience across social networks and other digital channels.

Ethics and confidentiality:

The use of personal data significantly simplifies the delivery of service, but creates significant ethical challenges. Companies must ensure the observance of strict ethical standards, data security, and the protection of customer confidentiality. The improper use of data can reduce customer trust, which is directly reflected in the brand's image and business outcomes.

Operational efficiency:

Through the integration of AI it is possible not only to reduce costs, but also to optimize operational processes, distribute resources effectively, and strengthen labor. The system can automate routine processes, order management, and the monitoring of customer demands, which increases the competitiveness of companies and ensures faster, more flexible, and higher-quality service.

The impact of Smart Tourism:

The experiences gained within the framework of Smart Tourism show that the hybrid integration of AI and personalization increases operational efficiency, customer satisfaction, and brand competitiveness, which is particularly important for contemporary tourism companies.

6. Conclusion

Digital transformation, particularly through the integrated use of artificial intelligence (AI) and personalization, has a significant impact on tourism service and customer experience. The results of the research confirm that a hybrid approach of technology and human resources ensures sustainable, effective, and customer-tailored service. The experiences gained within the framework of Smart Tourism show that the hybrid integration of AI and personalization increases operational efficiency, customer satisfaction, and brand competitiveness, which creates a significant strategic advantage for contemporary tourism companies.

The use of AI not only increases the quality of service and operational efficiency, but also facilitates the strengthening of customer satisfaction, loyalty, and brand image. The research also emphasizes that digital transformation requires not only technological integration, but also the observance of ethical standards, the security of personal data, and the assurance of customer confidentiality. As a result of this approach, tourism companies will be able to create innovative, customer-oriented, and competitive services.

Recommendations:

- Businesses should increase the use of AI in personalization processes, in order to offer customers individually tailored service and improve customer experience;
- It is necessary to protect data confidentiality and observe strict ethical standards, in order to increase customer trust and preserve the brand's positive image;
- Future research should be directed toward the study of innovative technologies, the possibilities of their use in the SME sector, and the important role of customer experience, which will facilitate the more effective development of services in the industry.

Bibliography

1. Siqi Wang & Qingjin Wang et al. (2025). Artificial Intelligence in Tourism: A Systematic Literature Review and Future Research Agenda. Sustainability.
2. Shin et al. (2026). Exploring service innovation archetypes of generative artificial intelligence in tourism. Tourism Management.
3. Dang & Nguyen (2023). Systematic review and research agenda for the tourism and hospitality sector. Future Business Journal.
4. Rasulova (2025). Personalized customer approach in tourism services. ESIconf.