

A Study on The Role of Artificial Intelligence in Smart Tourism and Travel Experience

PRANAV ANANT NAGMOTE¹, DR. ASHWINI GARKHEDKAR²

^{1,2}MCA Department, P E S Modern College of Engineering, Pune, India

Abstract- Artificial Intelligence is becoming an important technology in the tourism and hospitality sector. It is used in online travel planning, hotel booking, customer support, recommendation systems, chatbots, digital marketing, smart destinations, language translation, review analysis and travel safety. In earlier years, tourists mainly depended on travel agents, guidebooks, brochures and personal suggestions. Today, tourists use mobile applications, AI-based search tools, online reviews, maps, smart payment systems and virtual assistants during almost every stage of the journey. Because of this, AI has started changing both tourist experience and tourism business management. This research paper studies the role of Artificial Intelligence in smart tourism and travel experience. The paper focuses on how AI improves personalization, faster service, destination promotion, customer communication, business decision-making, demand forecasting and operational efficiency. It also discusses challenges such as data privacy, fake reviews, algorithmic bias, overdependence on digital platforms, job displacement, cyber security risk and unequal access for small tourism businesses. The study follows a review-based research method using existing academic sources related to eTourism, smart tourism, intelligent systems, automation and AI in tourism. The study concludes that AI can make tourism more convenient, personalized and competitive when it is used responsibly. However, tourism is also a human-centered industry where trust, local culture, emotions and service quality are important. Therefore, AI should support human service instead of completely replacing it. Responsible AI, ethical data use, human supervision and inclusive technology adoption are necessary for sustainable tourism development.

Keywords: Artificial Intelligence, Smart Tourism, Travel Experience, Tourism Technology, eTourism, Chatbots, Recommendation Systems, Digital Marketing, Tourism Business Management, Data Privacy, Sustainable Tourism.

I. INTRODUCTION

Tourism is one of the most important service industries because it supports hotels, transport,

restaurants, travel agencies, local guides, handicrafts, entertainment, cultural activities and many small businesses. It also helps people understand new places, traditions, languages, food habits and lifestyles. In the modern world, tourism is no longer managed only through physical offices and printed brochures. It is strongly connected with websites, mobile applications, online payments, digital maps, social media and intelligent systems.

Artificial Intelligence, commonly known as AI, is a technology that allows computer systems to perform tasks that normally need human intelligence. These tasks include learning from data, understanding language, recognizing images, predicting demand, recommending options and supporting decision-making. In tourism, AI is used to understand traveller preferences, suggest destinations, answer customer questions, analyze reviews, automate booking support and improve service delivery.

The tourism journey begins before a tourist reaches the destination. A tourist searches online, compares packages, checks hotel ratings, watches videos, reads reviews, studies maps and calculates the budget. AI supports this stage by giving personalized recommendations, sorting hotels according to preferences, suggesting travel dates and showing destination content according to user interest. During the journey, AI helps through navigation, translation, digital assistants, smart hotel services and real-time travel updates. After the journey, AI can analyze feedback, reviews and customer satisfaction to help businesses improve their services.

AI is also useful for tourism businesses. Hotels can forecast occupancy, manage pricing, study customer behavior and improve marketing campaigns. Travel companies can use AI chatbots to answer common queries, send package suggestions, manage leads and

provide faster customer support. Destination managers can use AI and data analytics to understand tourist flow, crowding, transport needs and safety concerns. These applications make tourism more data-driven and responsive.

However, AI in tourism also creates challenges. Tourists share personal data such as location, identity details, travel history, payment information and preferences. If this data is not protected, privacy problems may occur. AI systems may also promote only popular destinations, which can increase overcrowding. Fake reviews, automated content and biased recommendations can mislead travellers. Small tourism businesses may also struggle to compete with large platforms that have more data and technology resources.

This paper studies the role of Artificial Intelligence in smart tourism and travel experience. It explains the benefits, risks, challenges and future scope of AI in tourism. The aim is to understand how AI can improve tourism services while maintaining human values, cultural authenticity, privacy and responsible business practices.

1.1 Objectives of the Study:

- To understand the meaning and importance of Artificial Intelligence in tourism and hospitality.
- To study how AI improves travel planning, customer experience and tourism business management.
- To identify challenges such as privacy, bias, fake reviews, job impact and overdependence on digital platforms.
- To analyze the role of AI in smart destinations, digital marketing and personalized tourism services.
- To suggest responsible and ethical use of AI for sustainable tourism development.

II. LITERATURE REVIEW

Buhalis and Law (2008) [1]

Buhalis and Law reviewed the development of information technology and tourism management after the growth of the internet. Their work explains how online systems changed travel distribution, tourist information search and the structure of the

tourism industry. This study is important because it created a strong foundation for understanding eTourism. It shows that technology has continuously influenced how tourists plan trips and how tourism businesses communicate with customers.

Gretzel (2011) [2]

Gretzel studied intelligent systems in tourism from a social science perspective. The research explains that tourism technology should not be studied only as a technical tool, but also as a part of tourist behavior and service interaction. This study is useful because AI systems in tourism directly affect how tourists search, decide, trust and experience services. It highlights the need to understand human interaction with intelligent systems.

Gretzel, Sigala, Xiang and Koo (2015) [3]

Gretzel et al. introduced the concept of smart tourism and explained its foundation. Their study shows that smart tourism depends on technologies such as big data, mobile systems, cloud services, sensors and intelligent platforms. The paper is important because it explains how destinations can transform data into useful services for tourists, businesses and governments. It supports the idea that AI is a key part of smart tourism development.

Buhalis and Amaranggana (2015) [4]

Buhalis and Amaranggana discussed smart tourism destinations and personalization of services. Their research explains that smart destinations can use technology and data to provide services according to tourist needs and preferences. This is directly related to AI because recommendation systems and predictive analytics can help destinations offer the right information at the right time. The study shows how personalization can improve travel satisfaction.

Xiang, Magnini and Fesenmaier (2015) [5]

Xiang, Magnini and Fesenmaier studied information technology and consumer behavior in travel and tourism. Their work explains that internet use has changed how tourists search for information, compare choices and make travel decisions. This study is useful for understanding AI-based travel platforms because AI depends on user behavior data to provide search results, package suggestions and personalized recommendations.

Huang, Goo, Nam and Yoo (2017) [6]
Huang et al. studied smart tourism technologies in travel planning. Their research shows that travel websites, smartphones and smart services help tourists explore destinations and use information efficiently. The study also explains that security and privacy concerns can affect technology adoption. This literature is important because AI-based tourism systems also need user trust, safety and privacy protection.

Buhalis and Leung (2018) [7]
Buhalis and Leung studied smart hospitality and proposed an ecosystem where hotel systems, business partners and customer services are interconnected. Their work explains how hotels can use smart technology to improve operations and service quality. This study is useful for AI in tourism because hotels use AI for booking support, customer profiling, dynamic pricing, room service automation and guest experience management.

Ivanov and Webster (2019) [8]
Ivanov and Webster studied customer attitudes towards service robots in tourism. Their research shows that tourists may accept robots for information, booking, payments and housekeeping-related tasks, but acceptance depends on the type of service. This study is important because AI and robotics are increasingly used in hotels, airports and restaurants. It also shows that human comfort and service expectations must be considered before automation.

Tussyadiah (2020) [9]
Tussyadiah reviewed research into automation in tourism and discussed the future of AI and robotics in the sector. The study explains that intelligent automation can improve efficiency, but it also raises questions about employment, service quality and social impact. This literature is important because tourism is not only an economic activity but also a human and social experience.

Samala et al. (2022) [10]
Samala et al. studied the impact of AI and robotics in the tourism sector. Their work highlights the role of chatbots, virtual assistants, robots, data analytics and automation in improving service and customer

experience. The study also explains challenges such as high implementation cost, technological readiness and customer acceptance. It supports the need for balanced AI adoption in tourism.

Bulchand-Gidumal (2022) [11]
Bulchand-Gidumal reviewed the impact of Artificial Intelligence in travel, tourism and hospitality. The study explains that AI can support marketing, personalization, operations, customer communication and decision-making. It also discusses concerns such as privacy, trust and ethical use. This literature is highly relevant because it directly connects AI with the future development of tourism and hospitality services.

III. RESEARCH GAP

Many existing studies discuss eTourism, smart tourism, digital platforms and intelligent systems. Some studies focus on online travel behavior, while others focus on smart destinations, hotel automation or robotics. However, there is still a need to present the role of AI in tourism in a simple and combined format that connects tourist experience, business management, ethics and sustainability.

A large amount of research explains the benefits of tourism technology, but less attention is given to how small tourism businesses, local guides, rural destinations and developing regions can adopt AI. Large online platforms have more data, financial resources and technical teams. Because of this, the benefits of AI may not be equally available to all tourism stakeholders.

Another gap is related to responsible use. AI in tourism collects personal data such as location, preferences, identity documents, payment details and travel history. Many tourism users may not fully understand how their data is used. Therefore, privacy, transparency and consent need more attention in tourism research.

There is also a need to balance automation with human service. Tourism is not only about efficiency. It is also about emotions, hospitality, culture, trust and local experience. If AI is used without sensitivity, tourism may become mechanical and less

authentic. This paper attempts to study AI in tourism from both technology and human-centered perspectives.

IV. METHODOLOGY

4.1 Research Method

This research paper follows a review-based research method. The study is prepared by referring to existing research papers, academic articles and tourism technology studies related to Artificial Intelligence, smart tourism, eTourism, intelligent systems, automation and hospitality management. No primary survey or laboratory experiment is conducted in this paper.

4.2 Study Approach

The topic is divided into major areas such as AI in travel planning, AI in tourist experience, AI in hotel and hospitality operations, AI in destination management, AI in tourism marketing, ethical issues, privacy concerns and sustainable tourism. This approach helps to understand that AI affects both tourists and tourism businesses.

4.3 Data Collection

The information is collected from secondary sources such as journal articles, conference papers, book chapters and academic studies. Sources were selected on the basis of relevance to AI and tourism, publication quality, connection with smart tourism and availability of author and publication details. The references are limited to eleven important sources to keep the paper focused.

4.4 Analysis Method

The collected information is analyzed by comparing positive impacts and challenges of AI in tourism. For example, personalization is compared with privacy risk, automation is compared with job impact, and smart destination management is compared with unequal access. This balanced method helps to understand AI as both an opportunity and a responsibility.

4.5 Scope of the Study

The scope of this study is limited to AI-based transformation in tourism and hospitality. It does not explain AI algorithms mathematically. The paper

mainly focuses on social, business and ethical impacts of AI in tourism. It is useful for students, researchers and tourism professionals who want to understand AI from a practical and academic perspective.

V. TOOLS / TECHNOLOGY USED

Machine Learning: Machine Learning helps tourism platforms learn from previous searches, bookings, ratings and customer behavior. It is used for recommendation systems, demand forecasting, pricing decisions, customer segmentation and fraud detection. For example, a travel website can suggest destinations based on past searches and preferred budget.

Natural Language Processing: Natural Language Processing helps computers understand human language. In tourism, it is used in chatbots, voice assistants, automatic translation, review analysis and email support. It allows tourism businesses to respond to customers quickly and in multiple languages.

Recommendation Systems: Recommendation systems suggest destinations, hotels, activities, restaurants and packages according to tourist preferences. These systems use customer data, ratings, location, budget and travel history. They improve convenience, but they must avoid biased or misleading recommendations.

Chatbots and Virtual Assistants: AI chatbots answer tourist questions about packages, prices, documents, hotel facilities, cancellation policies and travel dates. They are useful because they provide 24-hour support. However, complex complaints and emotional issues still require human staff.

Computer Vision: Computer vision can be used in airports, hotels, tourist attractions and security systems. It supports image recognition, crowd monitoring, facial recognition and visual search. It can improve safety but also creates privacy concerns if used without permission.

Predictive Analytics: Predictive analytics helps tourism businesses forecast demand, tourist flow,

hotel occupancy, seasonal trends and revenue. It helps managers plan staff, pricing and marketing campaigns. Predictions should be used carefully because sudden events such as weather, pandemics or political issues can change travel demand.

Robotics and Service Automation: Robots can support information counters, housekeeping, food delivery and airport assistance. Automation can improve speed and consistency, but tourism businesses must decide where robots are suitable and where human hospitality is more important.

Generative AI: Generative AI can create travel itineraries, blogs, social media captions, package descriptions, customer replies and visual content. It can help travel agencies save time, but human review is necessary to avoid incorrect information, copied content and unrealistic promises.

VI. RESULT AND ANALYSIS

6.1 Results:

The study shows that Artificial Intelligence can strongly improve tourism experience and tourism business management. AI can make travel planning faster, services more personalized and business decisions more data-driven. At the same time, AI also creates risks related to privacy, bias, fake reviews, employment and overdependence on digital platforms.

Positive Impacts:

- AI can provide personalized destination, hotel and package recommendations.
- AI chatbots can offer 24-hour customer support and reduce response time.
- AI can help hotels forecast demand, manage pricing and improve occupancy.
- AI can analyze customer reviews and identify service improvement areas.
- AI can support language translation and make international travel easier.
- AI can help destinations manage tourist flow, crowding and safety.
- AI can improve digital marketing through customer segmentation and targeted campaigns.
- AI can support sustainable tourism by monitoring resources, traffic and environmental impact.

Negative Impacts :

- AI may collect sensitive tourist data and create privacy concerns.
- AI-based recommendations may promote only popular destinations and increase overcrowding.
- Small tourism businesses may struggle to compete with large AI-enabled platforms.
 - Fake reviews and AI-generated content may mislead tourists.
 - Automation may reduce some routine jobs in travel agencies, hotels and customer support.
 - AI systems may give biased results if the data is incomplete or unfair.
 - Overdependence on digital systems may reduce human interaction and authentic hospitality.

6.2 Area-wise Analysis:

In travel planning, AI helps tourists compare destinations, flights, hotels and activities quickly. It can suggest options according to budget, season, interests and previous behavior. This improves convenience, but users may depend too much on platform suggestions and may not explore local alternatives.

In customer service, chatbots and virtual assistants reduce waiting time. They can answer common questions about bookings, refunds, visa documents, hotel policies and travel dates. However, they may fail in complex emotional situations, such as medical emergencies, complaints or sudden cancellations. Human support remains important.

In hotel management, AI can support room pricing, occupancy prediction, guest profiling and service personalization. It can help hotels understand customer needs and improve operations. However, excessive data collection may reduce customer trust if guests feel that their behavior is being monitored.

In destination management, AI can help track tourist flow, identify crowded places and improve transport planning. This can support safety and sustainability. However, destinations must ensure that technology does not disturb local communities or reduce cultural authenticity.

In digital marketing, AI can help tourism businesses target the right customers and create better campaigns. Travel agencies can analyze enquiries, seasonal trends and user preferences. But aggressive targeting and automated content may create misleading advertisements if not reviewed carefully.

In employment, AI may reduce manual work such as repeated customer queries, basic bookings and simple information services. At the same time, it creates demand for new skills such as digital marketing, AI tool usage, data analysis and online customer relationship management.

VII. DISCUSSION

Artificial Intelligence is changing tourism from a traditional service model to a smart and data-driven model. Earlier, tourists depended heavily on travel agents for information. Today, tourists can plan a complete trip using mobile applications, AI search, online reviews, digital payments and maps. This gives tourists more control and faster access to information.

For tourism businesses, AI creates new opportunities. Travel agencies can use AI to manage enquiries, recommend packages, prepare itineraries and understand customer preferences. Hotels can use AI for dynamic pricing, guest communication and service improvement. Destination managers can use AI to plan infrastructure and reduce crowding.

However, tourism is different from many other industries because it is based on human experience. A tourist remembers not only the hotel room or transport facility, but also local culture, emotional comfort, trust, food, safety and personal interaction. If AI is used only to reduce cost, the quality of hospitality may decline. Therefore, AI should be used to support humans rather than fully replace them.

Another important issue is data privacy. Tourists share personal information during bookings, payments and travel. AI systems use this data for personalization and marketing. If data is misused, tourists may face spam, fraud, identity misuse or unwanted tracking. Transparent privacy policies and secure systems are necessary.

AI can also affect destination equality. Popular destinations may get more digital visibility because algorithms promote places with more reviews and higher engagement. Less-known rural or cultural destinations may remain invisible. Tourism platforms should design fair recommendation systems that also support local and emerging destinations.

The future of AI in tourism depends on responsible adoption. Businesses should train staff, verify AI content, protect data and maintain human support. Governments and tourism boards should create guidelines for ethical use of AI. If used carefully, AI can improve tourism experience, business efficiency and sustainable destination development.

7.1 AI in Different Stages of Tourism Experience:

AI affects tourism in three major stages: pre-trip, during-trip and post-trip. In the pre-trip stage, tourists use AI-enabled search engines, recommendation systems, price comparison tools and travel planning applications. These systems help users identify destinations, estimate budgets, compare hotels, select activities and understand weather or seasonal conditions. This stage is important because the first impression of a destination is often formed through digital information.

During the trip, AI supports tourists through navigation, language translation, smart hotel check-in, digital tickets, chatbots and real-time alerts. A tourist visiting a new city may use AI-powered maps to avoid traffic, translation tools to communicate with local people and virtual assistants to find nearby restaurants or attractions. These services reduce uncertainty and improve travel confidence.

In the post-trip stage, tourists share ratings, photos, reviews and feedback on digital platforms. AI can analyze this feedback and identify common complaints, popular attractions, service gaps and customer satisfaction patterns. Tourism businesses can use this analysis to improve future packages, hotel service, transport coordination and marketing content.

This stage-wise view shows that AI is not limited to one small activity. It influences the complete travel cycle from planning to experience sharing. Therefore,

tourism businesses should not adopt AI randomly. They should identify where AI gives real value and where human support is still required.

7.2 Importance for Indian Tourism Businesses:

AI can be especially useful for Indian tourism because India has a wide variety of destinations such as heritage sites, religious places, beaches, forts, wildlife sanctuaries, hill stations and cultural festivals. Tourists often need information about travel routes, weather, local food, language, safety, hotel availability and package cost. AI tools can organize this information and make it easier for tourists to plan their journey.

Small travel agencies can also benefit from AI. A local agency can use AI to prepare package descriptions, reply to customer enquiries, create social media posts, manage leads and maintain customer records. This can reduce manual workload and help small businesses compete with larger online travel platforms.

However, Indian tourism businesses may face barriers such as limited technical knowledge, cost of software, poor internet connectivity in some regions and lack of training. Therefore, AI adoption should be simple, affordable and suitable for local business needs. Training programs and government support can help small operators use AI responsibly.

VIII. CHALLENGES IN AI-BASED TOURISM

One major challenge is data privacy. AI-based tourism platforms collect location, passport details, payment records, travel history, reviews and preferences. This information must be protected because it can be misused if systems are hacked or poorly managed.

Another challenge is trust. Tourists may not always know whether a recommendation is neutral or paid promotion. If AI systems recommend hotels or packages mainly because of commercial benefit, tourists may lose trust in digital platforms. Transparency in recommendations is necessary.

Fake reviews are also a serious problem. AI can be used to generate positive or negative reviews at large

scale. This can mislead tourists and damage honest businesses. Review verification and fraud detection systems are required.

Technology access is another issue. Large hotels and travel platforms can invest in AI tools, but small travel agencies, homestays, local guides and rural businesses may not have the same resources. This can increase inequality in the tourism market.

Employment impact is also important. AI can automate routine tasks such as answering repeated questions or processing simple bookings. Workers need training so that they can move towards higher-value work such as customer relationship management, digital marketing and personalized travel consulting.

Finally, AI accuracy is a challenge. A wrong travel suggestion, incorrect visa information, outdated hotel policy or false safety update can create problems for tourists. Human verification is necessary for important travel information.

IX. SUGGESTIONS AND RECOMMENDATIONS

- Tourism businesses should use AI as a support tool and not as a complete replacement for human service.
- AI-generated itineraries, package descriptions and customer replies should be reviewed by trained staff before being shared with customers.
- Tourism platforms should clearly inform users how their data is collected, stored and used.
- Small tourism businesses should be supported with affordable AI tools and digital training.
- Destination recommendation systems should promote responsible and balanced tourism, not only crowded popular places.
- AI chatbots should include easy transfer to human support for complex issues.
- Tourism companies should verify online reviews and detect fake or automated content.
- Hotels and travel agencies should train employees in AI literacy, digital communication and data privacy.
- Governments and tourism boards should create guidelines for ethical AI use in tourism.
- AI should be used to support sustainable tourism, local communities and cultural preservation.

X. FUTURE SCOPE

The future scope of AI in tourism is very large. AI can be used to create highly personalized travel itineraries based on budget, age group, food preference, health condition, weather, season and travel purpose. This can make travel planning easier for families, students, senior citizens and international tourists.

AI can also support smart destination management. Tourism boards can use AI to predict tourist flow, manage traffic, reduce overcrowding and improve safety. This is useful for religious places, heritage sites, beaches, hill stations and major events where crowd management is important.

In the future, AI-based translation tools can reduce language barriers between tourists and local communities. This can improve cultural exchange and help tourists communicate during emergencies, shopping, food ordering and local travel.

Generative AI can help travel companies prepare faster package content, destination blogs, advertisements and customer communication. However, future systems must be trained to provide accurate and verified travel information.

AI can also support sustainable tourism by monitoring water use, energy use, waste, traffic and environmental pressure. This can help destinations protect natural resources while still welcoming tourists.

Future research can study how Indian travel agencies, hotels and local tourism businesses can adopt AI at low cost. Research can also focus on customer trust, AI-generated travel content, employment impact and responsible AI policies in tourism.

10.1 Future Research Directions:

Future research can include surveys of tourists to understand whether they trust AI-generated travel suggestions. It can also study whether tourists prefer human agents or chatbots for different types of travel decisions. For simple questions, AI may be enough, but for expensive family tours, honeymoon packages

or international travel, human consultation may still be preferred.

Researchers can also study how AI affects local guides, small hotels, homestays and transport operators. If AI platforms mainly promote large brands, small businesses may lose visibility. Future studies can examine how fair algorithms can support local communities and balanced destination development.

Another research direction is AI and sustainable tourism. AI can help monitor crowding, pollution, transport load and visitor behavior at sensitive destinations. Future studies can measure whether such systems actually reduce environmental damage and improve tourist discipline.

Future work can also compare AI adoption in urban tourism businesses and rural tourism businesses. Such comparison will help identify training needs, infrastructure gaps and policy support required for inclusive digital transformation.

XI. ETHICAL CONSIDERATIONS

Ethical AI is important in tourism because travel involves personal identity, location, payment details and safety. Tourism businesses must use customer data only for genuine service improvement and should not misuse it for unwanted tracking or aggressive marketing.

Fairness is also important. AI systems should not recommend only large hotels or paid partners while ignoring small homestays and local businesses. If recommendations are influenced by advertisements, tourists should be clearly informed.

Transparency is necessary when AI chatbots or automated systems are used. Customers should know whether they are speaking with a human employee or an AI system. This helps build trust and avoids confusion.

Human control should remain important in sensitive travel situations such as cancellations, medical emergencies, safety alerts, visa issues and

complaints. AI can assist, but final responsibility should remain with trained human staff.

Cultural respect is another ethical concern. AI-generated tourism content should not misrepresent local culture, religion, traditions or historical facts. Tourism promotion must remain accurate, respectful and responsible.

11.1 Data Privacy and Tourist Trust:

Tourist trust is one of the most important conditions for successful AI adoption. A traveller shares personal and financial information with tourism platforms because they expect safety and reliability. If a platform misuses data or gives unclear privacy information, tourists may avoid using digital services. Tourism companies should follow minimum data collection practices. They should collect only the information required for booking, communication and service delivery. Sensitive documents and payment details should be protected through secure systems. Customers should also be given clear choices about marketing messages and data usage.

Trust can also be improved by explaining AI decisions. For example, if a platform recommends a hotel because it matches the tourist's budget and location preference, this reason should be visible. Simple explanations can make AI systems more acceptable and reduce suspicion among users.

11.2 Human Role in AI-Enabled Tourism:

Even if AI becomes advanced, the human role in tourism will remain important. Tourists often need emotional assurance, local advice, flexible judgement and personal care. These qualities are difficult to provide through automation alone.

Travel agents, hotel staff, guides and destination managers should use AI as a productivity tool. AI can prepare drafts, analyze data and answer basic questions, while humans can handle complex planning, conflict resolution, emergency help and relationship building.

This human-AI collaboration can create better tourism service. It allows businesses to become faster without losing the warmth of hospitality. Therefore, the best future for tourism is not fully automated

tourism, but smart tourism supported by responsible human guidance.

XII. LIMITATIONS OF THE STUDY

This paper is based on secondary data and literature review. No primary survey, interview or field experiment was conducted. Therefore, the findings are based on previously published academic sources and general analysis.

The study focuses on Artificial Intelligence in tourism and does not explain technical algorithms, coding, model training or mathematical details. The paper is written from a tourism management and social impact perspective.

AI and tourism technologies are changing quickly. New tools such as generative AI travel planners, voice assistants and smart booking engines are developing rapidly. Therefore, some examples may change in future.

The paper gives a broad understanding of AI in tourism but does not measure its impact using numerical data from a specific travel company or destination. Future studies can include surveys of tourists, travel agencies and hotel managers.

CONCLUSION

Artificial Intelligence is becoming an important part of modern tourism. It supports online travel planning, personalized recommendations, customer service, hotel management, digital marketing, review analysis and destination management. AI can help tourists make better decisions and can help tourism businesses operate more efficiently.

At the same time, AI creates challenges related to privacy, trust, fake reviews, bias, employment and unequal access. Tourism is a human-centered industry, so technology should not remove the importance of hospitality, local culture and personal service. AI should make tourism smarter, but it should also keep tourism responsible and human-friendly.

The study shows that AI can improve tourism experience when it is used with transparency, data protection, human supervision and ethical planning. Small businesses and local communities should also get the benefit of AI, not only large tourism platforms. Responsible AI can support inclusive and sustainable tourism development.

In conclusion, AI should be used as a supportive technology that improves tourist convenience and business performance while protecting privacy, fairness, culture and human values. The success of AI in tourism will depend not only on technical innovation but also on responsible use, ethical governance and trust between tourists, businesses and destinations.

REFERENCES

- [1] Buhalis, D. and Law, R. (2008). "Progress in Information Technology and Tourism Management: 20 Years on and 10 Years After the Internet - The State of eTourism Research", *Tourism Management*, Vol. 29, Issue 4, pp. 609-623.
- [2] Gretzel, U. (2011). "Intelligent Systems in Tourism: A Social Science Perspective", *Annals of Tourism Research*, Vol. 38, Issue 3, pp. 757-779.
- [3] Gretzel, U., Sigala, M., Xiang, Z. and Koo, C. (2015). "Smart Tourism: Foundations and Developments", *Electronic Markets*, Vol. 25, Issue 3, pp. 179-188.
- [4] Buhalis, D. and Amaranggana, A. (2015). "Smart Tourism Destinations Enhancing Tourism Experience Through Personalisation of Services", *Information and Communication Technologies in Tourism 2015*, Springer, pp. 377-389.
- [5] Xiang, Z., Magnini, V. P. and Fesenmaier, D. R. (2015). "Information Technology and Consumer Behavior in Travel and Tourism: Insights from Travel Planning Using the Internet", *Journal of Retailing and Consumer Services*, Vol. 22, pp. 244-249.
- [6] Huang, C. D., Goo, J., Nam, K. and Yoo, C. W. (2017). "Smart Tourism Technologies in Travel Planning: The Role of Exploration and Exploitation", *Information & Management*, Vol. 54, Issue 6, pp. 757-770.
- [7] Buhalis, D. and Leung, R. (2018). "Smart Hospitality - Interconnectivity and Interoperability Towards an Ecosystem", *International Journal of Hospitality Management*, Vol. 71, pp. 41-50.
- [8] Ivanov, S. and Webster, C. (2019). "Perceived Appropriateness and Intention to Use Service Robots in Tourism", *Information and Communication Technologies in Tourism 2019*, Springer, pp. 237-248.
- [9] Tussyadiah, I. (2020). "A Review of Research into Automation in Tourism: Launching the Annals of Tourism Research Curated Collection on Artificial Intelligence and Robotics in Tourism", *Annals of Tourism Research*, Vol. 81, Article 102883.
- [10] Samala, N., Katkam, B. S., Bellamkonda, R. S. and Rodriguez, R. V. (2022). "Impact of AI and Robotics in the Tourism Sector: A Critical Insight", *Journal of Tourism Futures*, Vol. 8, Issue 1, pp. 73-87.
- [11] Bulchand-Gidumal, J. (2022). "Impact of Artificial Intelligence in Travel, Tourism, and Hospitality", *Handbook of e-Tourism*, Springer, Chapter 81, pp. 1943-1962.