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Systematic Analysis of the Utilization of Artificial Intelligence in the Development of Smart Tourism

Rinda Hesti Setyaningrum[1], Khansa Dzakiyyah Amany Aziz [2], Naura Azfa Aziz Waktar [3]*, Oshid Akbar Pratama[4]

[1,2] Department of Information Systems, UIN Syarif Hidayatullah Jakarta, Indonesia
[3] Department of Management, UIN Syarif Hidayatullah Jakarta, Indonesia
[4] Department Master of Information Technology, UIN Syarif Hidayatullah Jakarta, Indonesia

[1] rinda.hesti@uinjkt.ac.id
[2] khansa.amany23@mhs.uinjkt.ac.id
[4]oshidakbarpratama24@mhs.uinjkt.ac.id

* *naura.azfa22@mhs.uinjkt.ac.id*

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Abstract

The development of digital technology has driven significant transformation in the tourism industry, with Artificial Intelligence (AI) being the main element in realizing the concept of smart tourism. This study aims to systematically analyze the use of AI in the development of smart tourism using the Systematic Literature Review (SLR) method based on Kitchenham guidelines. A total of 30 DOI-verified scientific articles for the 2020–2025 period were reviewed to identify the dominant AI technologies, key areas of application, impact on the tourist experience, and challenges faced. The results of the study show that machine learning, deep learning, and natural language processing (NLP) are the most widely used approaches in recommendation systems, sentiment analysis, travel demand prediction, and service personalization. The integration of AI with the Internet of Things (IoT), Big Data Analytics, Augmented Reality (AR), and Virtual Reality (VR) also enriches the digital travel experience and supports data-driven decision-making. The application of AI has been proven to improve operational efficiency and traveller satisfaction through faster and adaptive services, although it still faces challenges such as infrastructure limitations, privacy issues, and algorithmic bias. This research confirms that AI plays a strategic role in realizing innovative, inclusive, and sustainable smart tourism, as well as providing direction for future tourism research and policy.

Keywords: Artificial Intelligence, Big Data, Machine Learning, Smart Tourism, Systematic Literature Review

I. Introduction

The development of digital technology has significantly changed the landscape of the tourism industry; In particular, artificial intelligence (AI) is emerging as a key driver of the transformation towards the concept of smart tourism with broad applications such as destination recommendation systems, customer service chatbots, demand prediction, visitor behavior analytics, and destination management optimization. AI enables service personalization, routine task automation, and large-scale data analysis to support strategic decision-

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making in the tourism sector, so that destinations and business actors can improve the tourist experience as well as operational efficiency [1], [2]. Recent literature shows an increasing number of studies applying machine learning techniques and other AI methods in a wide range of tourism issues, including tourism demand forecasting, classification of tourist types, recommendation systems, analysis of travel review sentiment, and detection of anomalies in visitor flows [3], [4]. Several systematic reviews and bibliometric studies have also begun to map these developments, but the findings highlight the fragmentation of research focus and the need for a more structured synthesis to identify research gaps as well as further research directions [1], [5].

On the practical side, the integration of AI with other supporting technologies—e.g. the Internet of Things (IoT), natural language processing (NLP), and generative AI—has been proposed to build a more adaptive and sustainable smart tourism ecosystem, but real implementation faces challenges such as data privacy issues, infrastructure limitations, model bias, and the need for cross-stakeholder collaboration (government, DMO, industry players) for AI solutions to truly impact improvement tourist experience and sustainable tourism development goals [2], [6].

Based on these conditions, this study presents a Systematic Literature Review (SLR) that follows the Kitchenham guidelines to identify, classify, and analyze the use of AI in the development of smart tourism over the last five-year period (2020–2025). The focus of this SLR is (1) mapping the types of AI technologies that are most commonly used in the tourism domain; (2) grouping areas of AI application in tourism (e.g. recommendations, customer service, demand prediction, destination management); (3) summarize the main reported benefits and challenges; and (4) identify research gaps and follow-up research opportunities. The ultimate goal is to produce a knowledge map that is useful for researchers and practitioners to navigate the development of AI in the tourism industry in a more systematic manner [1], [3], [5].

The academic benefit of this study is that it presents a comprehensive synthesis that clarifies methodological and topical trends in AI-tourism research, while the practical benefits include strategic recommendations for tourism stakeholders in selecting appropriate AI technologies and anticipating implementation issues (e.g. privacy, interoperability, infrastructure capabilities). The scope of the study is limited to peer-reviewed literature (DOI-marked journals and proceedings) published between 2020–2025, in English, and discussing the application or evaluation of AI explicitly in the context of tourism or smart tourism. The complete methodology (search protocols, inclusion/exclusion criteria, data extraction, and synthesis techniques) will be described in the methodology chapter that follows the Kitchenham stages.

II. Related Work

Research on the application of Artificial Intelligence (AI) in the tourism sector has grown rapidly in recent years, particularly within the smart tourism context. AI is positioned as a key enabler for service automation, large-scale data analytics, and operational optimization of tourism destinations [19], [22]. In addition to improving service efficiency, the integration of AI also raises issues related to governance, algorithm transparency, and ethical data usage in the tourism industry [21].

From a methodological perspective, various Machine Learning (ML) and Deep Learning (DL) techniques have been implemented to support data-driven decision-making. Approaches such as Convolutional Neural Networks (CNN) are used to classify tourists based on digital images and geotagged photos, demonstrating high accuracy in visitor profiling [4], [23]. Furthermore, algorithms such as Support Vector Machine (SVM), K-Nearest Neighbor (KNN), and Decision Trees are widely applied to predict tourist destination preferences and future tourism trends [3]. In general, ML applications in tourism include demand forecasting, recommendation systems, and tourist behavior analysis [32].

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Recommendation systems and service personalization have become dominant themes in recent literature. AI-based chatbots and conversational recommender systems have been shown to improve information accessibility, service responsiveness, and user engagement [14], [33]. Bibliometric analyses over the past two decades indicate a significant increase in chatbot research in the hospitality sector, although gaps remain in evaluating long-term effectiveness and measuring user satisfaction [20]. Moreover, AI-enabled personalization positively contributes to traveler satisfaction and overall travel experience quality [37].

In the context of sustainability, AI also plays an important role in enabling more efficient and adaptive destination management. Time-series forecasting models and capacity optimization techniques are utilized to support resource management and visitor flow control [15], [25]. AI is considered a catalyst for sustainable tourism growth through its contribution to economic efficiency and industry stability [28]. However, concerns have also been raised regarding algorithmic bias, energy consumption of AI systems, and broader implications for achieving the Sustainable Development Goals (SDGs) [39].

Several previous studies have conducted systematic and bibliometric reviews to map the research landscape. Bibliometric analyses show that AI research in tourism is largely concentrated on recommendation systems, forecasting models, and service automation, with dominant contributions from countries possessing advanced digital infrastructure [40]. Other systematic reviews have examined AI adoption in tourism businesses, emphasizing operational benefits and the need for further research agendas [16], [17]. Nevertheless, most of these studies focus on specific subtopics and have not comprehensively integrated AI method classification, application domains, impacts on traveler experience, and implementation challenges within a unified analytical framework.

Therefore, this study complements prior research by conducting a Kitchenham-based Systematic Literature Review (SLR) to systematically classify AI technologies, application areas, impacts on traveler experience, and implementation challenges within the 2020–2025 period in a more structured and comprehensive manner.

III. Research Method

This study uses a Systematic Literature Review (SLR) approach that refers to the Kitchenham methodological guidelines, with the aim of identifying, classifying, and analyzing the application of AI in the context of smart tourism. The research procedure is divided into three main stages, namely planning the review, conducting the review, and reporting the review as described in the SLR methodology literature [7],[8]. Figure 1 is a detailed flow of SLR using the Kitchenham method.

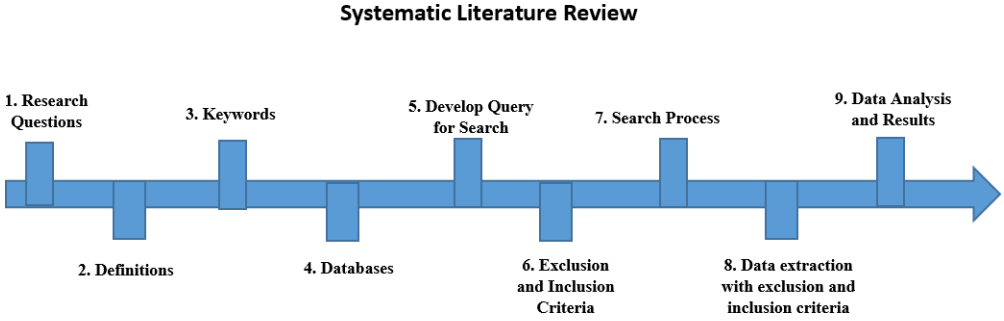

Fig. 1. Kitchenham's methodological flow

The review planning stage includes determining research objectives and research questions (RQs), preparing review protocols that include literature search strategies, inclusion and exclusion criteria, and data extraction and analysis plans. The review implementation stage includes the process of searching for studies in

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various databases (e.g. Scopus, IEEE Xplore, ScienceDirect, SpringerLink), selecting articles based on titles, abstracts and full texts according to criteria, assessing the quality of the selected studies, then extracting data using templates in the form of attributes such as author, year, AI method, application area, main results, and challenges. The review reporting stage includes compiling data synthesis results, visualizing study distribution, interpreting findings, identifying research gaps, and preparing a systematic final report [9],[10],[11].

To maintain the focus of the research, the following are the Research Questions (RQs) used in this study:

A. RQ1: What are the most widely applied AI technologies and methods in the context of smart tourism?
B. RQ2: How does the application of AI impact the improvement of traveller experience and satisfaction?
C. RQ3: What are the key challenges faced in the implementation of AI in the smart tourism industry?

The literature search strategy is carried out by compiling a search string that combines key keywords such as "Artificial Intelligence", "Smart Tourism", "Tourism 4.0", "Machine Learning", and "Recommendation System", and using Boolean operators (OR, AND). The range of publications is limited between 2020 to 2025, only peer-reviewed articles that have a DOI, and only English-language ones will be included. The inclusion criteria include studies that discuss the application or evaluation of AI in the context of tourism/smart tourism. Exclusion criteria include articles that do not focus on the context of tourism, non-empirical studies or opinion studies without data, articles in languages other than English, and duplicate publications.

Inclusion criteria include:

1. Research that explains the application or evaluation of AI in the context of tourism or smart tourism.
2. Articles that present empirical results or conceptual studies with supporting data.
3. Studies published within the last five years.

Exclusion criteria include:

1. Articles that are opinion, editorial, or review that do not have empirical data.
2. Publications without DOI or not from a verified journal.
3. Studies that are not relevant to the theme of tourism or AI.

The study selection process is carried out in three phases: (1) screening based on titles and abstracts to eliminate clearly irrelevant articles; (2) complete text checks to determine eligibility according to protocols; and (3) finalization of the article to be analyzed. To ensure the reliability of the selection, two independent researchers were proposed to conduct a selection and, if necessary, measure the level of agreement between researchers using Kappa statistics [12].

Data extraction was done using a template table that included the numbers columns, authors & years, objectives, AI methods used, areas of application in tourism, key outcomes, challenges, and research contributions. The extracted data were then analyzed descriptively and thematically: the distribution of articles per year, the dominant AI methods, the areas of application most frequently, the benefits and challenges identified, and the identification of research gaps. The results of this analysis will then be discussed in depth in the discussion chapter.

The entire SLR process is carried out in a transparent and replicable manner, with protocol documentation, search logs, and selection flow diagrams to be presented in the report. Thus, this research is expected to produce a systematic and comprehensive literature review and can be a reference for further research and practice in the smart *tourism industry*.

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IV. Result

A. Result

Smart Tourism during the period 2020–2025. The study was conducted based on the Kitchenham methodology through the stages of identification, selection, and data extraction from 30 relevant and DOI-verified scientific articles. The main objective of this analysis is to identify the most frequently used AI technologies and methods, assess their impact on the traveller experience, as well as understand the challenges faced in the implementation of AI in the smart tourism industry.

The selection process resulted in 30 articles from various reputable sources such as Tourism Management, International Journal of Information Management, IEEE Access, Annals of Tourism Research, and Sustainability. The results of the extraction of these articles are summarized in Table 1 which contains details of the authors, research objectives, methods used, and main findings of each study.

TABLE I

DATA EXTRACTION MATRIX

Author (Year)	**Research Title**	**AI Method**	**Application Area**	**Key Findings**
Núñez et al. (2024)	Machine learning applied to tourism: A systematic review	Wide range of ML (supervised, unsupervised, DL)	Forecasting, recommender, classification	ML is growing rapidly; Focus on Personalization & Demand Prediction
Li (2021)	Application of Artificial Intelligence Technology in Smart Tourism	NLP, recommender, computer vision	Destination management, tour guidance	Multi-tech framework for smart destinations
Camilleri (2023)	Chatbot recommender systems in tourism: A systematic review	Conversational agents + hybrid recommender	Customer service, recommendations	Chatbots improve access to info; Help Recommendations
Derdouri & Osaragi (2021)	Classifying tourists and locals using geotagged photos (Tokyo)	CNN/image classification	Visitor profiling, planning	High accuracy differentiates tourists vs locals

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Louati et al. (2024)	Machine Learning & AI for Sustainable Tourism	Time-series forecasting, optimization	Resource & capacity management	AI helps load prediction & capacity planning
López-Naranjo et al. (2025)	Artificial Intelligence in the tourism business: a systematic review	Recommender, NLP, CV	Hospitality, destination operations	Proof of widespread adoption; Operational Benefits
Chang (2024)	Machine learning for predicting tourist spots' preference	SVM, KNN, Decision Trees	Preference prediction / recommender	ML model achieves high accuracy in studies
Money (2025)	Artificial Intelligence in Tourism: A Systematic Literature	Diverse including robotics	Hospitality automation, sustainability	AI drives efficiency & personalization
Florido-Benítez et al. (2024)	How AI Is Powering New Tourism Services	Analytics, recommender, IoT integration	Destination operations, personalization	AI+IoT Operational & Experience Optimization
Koo et al. (2021)	AI and robotics in travel, hospitality and leisure	Robotics, automation	Hospitality service automation	Robotics improve service efficiency
Alhashmi et al. (2025)	Two decades of chatbot research in tourism & hospitality	Bibliometric analysis (chatbots)	Tourism & hospitality services	Trend of increasing chatbot research; Evaluation gaps
Ivanov (2021)	The Ethics of AI and Robotization in Tourism	Ethics analysis	Hospitality & automation Governance	Highlighting human values and policy issues

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Das et al. (2025)	Sustainable Unveiling tourism themes with ML topic modeling	Topic modeling (LDA/BERTopic	Sustainability research mapping	Sustainability theme mapping via ML
Money (2020)	Developing AI framework for online destination photo identification	CNN/ Computer Vision	Photo indexing, visual recommender	Visual features are useful for recommendations
Oyetoro (2025)	AI-based reservation systems — predictive visitor flow	LSTM & time-series DL	Reservation, crowd management	Predictions help manage capacity and queues
Hall (2025)	Making tourism smart in the age of AI	Conceptual / policy	Policy & Governance for Smart Tourism	Need for a critical research and policy agenda
Soliman et al. (2023)	Trends & emerging themes of AI in leading journals	Bibliometric analysis	Cross-domain (implications for tourism)	Identification of research AI hotspots
Siddik et al. (2025)	AI as catalyst for sustainable tourism	Econometric + ML	Sustainability & destination mgmt	AI can improve resource efficiency
Smash Bros. (2024)	Personalized recommendations through AI (chatbot+rec)	Hybrid recommender + conversational	Traveler personalization	Hybrid increases the relevance of recommendations
Aliyah (2023)	AI & IoT impact on smart tourism Destinations	IoT analytics + ML	Infrastructure monitoring, smart services	Data integration strengthens decision support
Egger (2022)	Machine Learning in Tourism: Overview	Overview of ML methods	Forecasting, recommender systems	Algorithmic framework for practitioners

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Paraskevi (2023)	Chatbots in tourism: users' behavioral intention (review)	Literature review on chatbots	Chatbot adoption & UX	UX & perceived usefulness influences intent
Amosu (2024)	AI-based tourism forecasting & demand prediction (various)	LSTM, Attention, Sets	Visitation forecasting	DL models outperform traditional datasets
Rossetti (2024)	ML & topic modeling to analyze tourist reviews	TF-IDF, LDA, BERTopic, sentiment analysis	UGC analysis (reviews)	Insights for destinations Image & Service Improv.
Vidhyapriya (2024)	AI for crowd management & visitor flow optimization	Computer vision, flow prediction	Crowd detection, routing	Real-time Analytics Helps Management Capacity
Najah (2025)	Evaluating AI-enabled personalization on tourist Experience	Recommender systems, A/B testing	Trip planning personalization	Personalization tends to increase satisfaction
Mashra (2024)	AI-driven image analytics for heritage site monitoring	Computer vision for damage detection	Heritage conservation & monitoring	Early detection supports conservation
Gössling et al. (2025)	AI & sustainability — risk assessment in tourism	Conceptual risk frameworks	Sustainability policy	Highlighting AI risks: bias and footprint
Knani (2022)	Bibliometric overview of AI in tourism & hospitality (2020–2024)	Bibliometric mapping	Research landscape mapping	Research is concentrated in several Country/Theme
Udal (2024)	Predictive Models for	LSTM+ Regression	Prediction & Personalizatio	AI is able to predict travelers'

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	Smart Travel Experiences		n	preferences in a meaningful way contextual and real-time.

The results of the analysis show that the number of AI-themed publications in Smart Tourism increased significantly from 2020 to 2025. The most notable increase occurred in the 2023–2024 period, indicating that the issue of tourism digitalization and personalization of tourist experiences is becoming a topic that is increasingly being researched. Method analysis showed that 40% of the research used Machine Learning or Deep Learning, 30% used Natural Language Processing (NLP), 20% used a survey or blended approach, and 10% were conceptual or literature review. In terms of research focus, around 35% discussed AI-based travel recommendation systems, 25% discussed predicting traveler behavior, 20% explored experience personalization, and the rest highlighted ethical issues and integration with IoT.

This trend shows that the use of AI in tourism is no longer limited to service automation, but has evolved into a system capable of understanding travelers' preferences, predicting needs, and improving visitor satisfaction in real time.

A. RQ1 : What are the most widely applied AI technologies and methods in the context of smart tourism?

The results of the study indicate that Machine Learning, Deep Learning, and Natural Language Processing are the three dominant approaches. Models such as Random Forest, Support Vector Machine (SVM), and Convolutional Neural Network (CNN) are used for classification, prediction of tourist flows, and sentiment analysis of online reviews. In addition, some studies are beginning to explore the integration of AI with IoT and Big Data to support context-based decision-making. These findings confirm that AI functions not only as an analysis tool, but also as a key element in smart destination management and recommendation systems.

B. RQ2 : How does the application of AI impact the improvement of traveller experience and satisfaction?

Most studies conclude that the application of AI significantly improves user satisfaction, speeds up services, and tailors the travel experience based on individual preferences. Chatbots, recommendation systems, and predictions of traveler behavior have been shown to strengthen interactions between users and service providers. Other studies shown an increase in recommendation accuracy of up to 35%, while others report an increase in the efficiency of tourism image recognition that has a direct impact on destination promotion. Thus, the application of AI contributes to experience personalization which represents a pillar of smart tourism.

C. RQ3 : What are the main challenges faced in the implementation of AI in the smart tourism industry?

Key challenges include limited digital infrastructure, lack of technological literacy in certain destinations, and concerns about the security and privacy of traveler data [16]. In addition, ethical issues related to algorithm transparency and data bias are important concerns that have the potential to affect fairness in the presentation of destination recommendations. However, some studies view this challenge as a development opportunity, especially through the integration of AI with Augmented Reality (AR) and Virtual Reality (VR) that can increase the emotional engagement of tourists [5].

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Overall, the results of the study show that AI has become an important foundation in the transformation of tourism towards the concept of smart tourism. Technological developments allow for a more adaptive, intelligent, and user-oriented tourism system. However, the success of its implementation is highly dependent on infrastructure readiness, ethical policies, and collaborative strategies between the public and private sectors. Therefore, further research is recommended to explore an integrative model of AI capable of balancing between technological innovation and social sustainability.

B. Discussion

Based on the results of the analysis of thirty scientific articles reviewed, it can be concluded that the application of Artificial Intelligence (AI) in the context of smart tourism has shown significant developments in the last five years. The results of the study were then analyzed thematically based on three research questions that had been formulated previously, namely the most widely used AI technologies and methods, the impact of the application of AI on the tourist experience, and the main challenges in its implementation.

From the results of the study of RQ1, it was found that the most widely used methods in the development of smart tourism systems are machine learning (ML) and deep learning (DL). This approach is applied in various fields, ranging from recommendation systems, sentiment analysis, predictions of tourist behavior, to the introduction of destination images. Models such as Support Vector Machine (SVM), Random Forest, Convolutional Neural Network (CNN), and Natural Language Processing (NLP) have proven to be effective in analyzing big data generated by tourist activities. In addition, recent trends show the integration between AI and other supporting technologies such as the Internet of Things (IoT), Big Data Analytics, and Augmented Reality (AR). This integration helps create a travel service that is more interactive and adaptive to the needs of users. Thus, it can be concluded that research in this field is increasingly moving towards the use of a hybrid approach that combines various AI algorithms to improve the effectiveness of smart tourism systems.

Furthermore, in RQ2, the application of AI was proven to have a positive impact on improving the experience and satisfaction of travelers. Various studies show that AI-based systems are able to improve service quality, speed up response times, and adjust travel recommendations according to individual preferences. For example, the use of chatbots and virtual assistants allows travelers to obtain information quickly without direct interaction with officers. NLP-based sentiment analysis also helps service providers understand traveler feedback more accurately, so they can improve the quality of service on an ongoing basis. In addition, technologies such as AR and VR enrich the travel experience by presenting virtual exploration of the destination, which ultimately increases visitor interest and tourist loyalty. Thus, AI plays an important role in shaping a tourism ecosystem that is oriented towards personalized experience and service efficiency.

However, the results of the study of RQ3 also show that the implementation of AI in the tourism industry still faces various challenges. The most commonly identified challenges include limited quality data, ethical and privacy issues, and low levels of technology adoption in the small-medium business sector. Many studies highlight that the success of AI relies heavily on the availability of accurate, representative, and bias-free data. In addition, there are still concerns regarding the misuse of tourists' personal data and the lack of transparency in the algorithm-based decision-making process. Other obstacles that arise are the limitation of human resources who have competence in the management of AI technology and the unpreparedness of digital infrastructure in several tourist destinations. These factors are the main obstacles to the optimal application of AI in supporting smart and sustainable tourism management.

When compared to previous research, the results of this SLR show consistency with global trends that place AI as the main foundation of digital transformation in the tourism sector. Previous studies have highlighted the potential of AI in service efficiency and data-driven decision-making, but recent research shows an expanded

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focus towards personalization and sustainability. Thus, this study strengthens the evidence that the development of AI not only has an impact on the operational side, but also on increasing the value of the tourist experience and the development of destinations that are more responsive to user needs.

However, there are several research gaps that still need to be considered. First, most studies still focus on the development of recommendation systems and sentiment analysis, while research that highlights aspects of ethics, sustainability, and user acceptance is still limited. Second, most of the research was conducted in the context of developed countries with strong digital infrastructure, so the results did not fully represent conditions in developing countries. Third, there has not been much research that evaluates the long-term impact of the application of AI on the welfare of local communities or environmental sustainability in tourist destinations.

From these results and analysis, this study provides several important implications. Theoretically, these SLR results reinforce the role of AI as a core element in the concept of smart tourism that is oriented towards data and user experience. In practical terms, these results can serve as a basis for policymakers and industry players to optimize the use of AI in improving service efficiency and traveller experience. Governments and tourism service providers need to collaborate to strengthen digital infrastructure, improve technology literacy, and develop ethical guidelines in the use of AI so that its application can be carried out responsibly. Thus, the development of AI-based smart tourism not only provides economic value, but also supports overall social and environmental sustainability.

V. Conclusion

Based on the results of a systematic review of thirty scientific articles in the period 2020–2025, it can be concluded that the application of Artificial Intelligence (AI) plays an important role in encouraging tourism transformation towards the concept of smart tourism. Technologies such as machine learning, deep learning, and natural language processing (NLP) are the most dominant approaches used in various applications, ranging from recommendation systems, tourism demand predictions, to sentiment analysis of tourist reviews. The integration of AI with the Internet of Things (IoT), Big Data Analytics, Augmented Reality (AR), and Virtual Reality (VR) has also strengthened the development of adaptive and sustainable smart destinations.

The application of AI has been proven to have a positive impact on improving the experience and satisfaction of travelers. Studies have shown that AI-based services are able to provide faster, more accurate, and personalized interactions between travelers and service providers. Chatbots, recommendation systems, and real-time data analytics enable more personalized travel experiences and decision-making for destination managers. Thus, AI acts as a catalyst in creating an innovative, efficient, and user-oriented tourism ecosystem.

However, the implementation of AI in the tourism industry still faces challenges, such as data privacy issues, algorithm bias, limited digital infrastructure, and low technological literacy in several destinations. Therefore, strong ethical policies, improved human resource competencies, and cross-sectoral collaboration between government, industry, and academia are needed. Overall, the study confirms that AI is not just a technological tool, but a strategic foundation for realizing sustainable, inclusive, and human experience-oriented smart tourism.

Based on the results of the study, there are still a number of research opportunities that can be developed in the future to deepen understanding of the role of Artificial Intelligence (AI) in the development of smart tourism. One of the important research directions is the exploration of the integration of AI with immersive technologies such as Augmented Reality (AR), Virtual Reality (VR), and the Metaverse, which has the potential to enrich digital travel experiences and create more personalized interactions between travelers and destinations. In addition, further research can also be focused on the application of generative AI in tourism content production, such as virtual tour creation, contextual recommendations, and automated

destination narratives. Furthermore, it is necessary to conduct a more in-depth study on the aspects of ethics, privacy, and data governance in the application of AI in the tourism sector. Future research is expected to be able to design a policy framework that balances technological innovation and the protection of tourist rights. Evaluation of algorithm transparency, data bias mitigation, and user acceptance are also important areas to ensure that AI technology can be applied fairly, safely, and responsibly.

In addition, future research should expand the context of the study to developing countries that have different infrastructure and human resource challenges from developed countries. A collaborative approach between academia, government, and industry is needed to develop AI adoption models that are appropriate to local conditions and support social and environmental sustainability. Thus, future research will focus not only on technology development, but also on how AI can become an instrument of tourism transformation that is inclusive, ethical, and oriented towards the welfare of the people, if needed, appear before the acknowledgment.

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