Tourist Loyalty and AI Personalization: A Trust-Based Study

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Abstract: This study explores how AI-driven personalization influences customer satisfaction and tourist loyalty in the tourism sector. It focuses on the role of trust in shaping these outcomes. The research was conducted in Marrakech, Morocco, with 282 visitors who used AI-powered tourism services, such as chatbots, personalized recommendations, or virtual guides. To analyse the relationships among the variables, the study extends the Technology Acceptance Model (TAM). It adds two key factors: perceived personalization and trust in AI. Structural equation modelling was used to test the connections between perceived ease of use, perceived usefulness, satisfaction, trust, and loyalty intention. The results show that ease of use has a clear effect on both usefulness and satisfaction. Tourists who found the AI tools easy to use were more likely to feel satisfied and to see value in the service. AI-based personalization also had a strong effect on satisfaction. Satisfied tourists were more likely to express loyalty. Trust in AI was another important factor. It directly influenced loyalty, even more than satisfaction in some cases. However, the study did not find a significant moderating effect of trust between satisfaction and loyalty. Also, perceived usefulness did not lead directly to satisfaction. This suggests that functional performance alone is not enough. What matters more is how the AI makes the tourist feel, and whether the experience feels personal and intuitive. This study adds to the literature by focusing on an emerging tourism market. It offers a local perspective from the Global South, where AI is gaining ground but remains unevenly adopted. The results can guide tourism businesses and decision-makers who want to use AI in ways that are effective, trustworthy, and centred on the tourist experience.

Keywords: AI Personalization, Tourist Satisfaction, Trust in AI, Loyalty, Smart Tourism

1. Introduction

Tourism is one of the world's most important economic sectors and a key driver of social development. In 2019, travel and tourism accounted for approximately 10.4% of global GDP and supported over 319 million jobs worldwide (Jhie, 2024). Beyond its direct economic contribution, tourism supports infrastructure development, generates foreign exchange, and contributes to local livelihoods. It also facilitates cultural exchange and promotes inclusive growth by connecting visitors with host communities. As such, tourism plays a central role in economic and social development across both developed and emerging economies.

In recent years, Artificial Intelligence (AI) has become increasingly integrated into tourism and hospitality services, particularly through personalization technologies (Ma, 2024). AI enables tourism firms to analyze large volumes of customer data and deliver tailored recommendations and real-time assistance (Makivić *et al.*, 2024). Hotels, booking platforms, and destination services now rely on AI-powered chatbots and recommendation systems to personalize itineraries, accommodation choices, and customer support. Empirical evidence suggests that satisfaction with AI-based services positively influences post-consumption outcomes, including revisit intentions and word-of-mouth behaviours (Chotisarn and Phuthong, 2024). By aligning services with individual preferences, AI-based personalization aims to enhance perceived value, improve service quality, and strengthen customer engagement (García-Madurga and Grilló-Méndez, 2023). AI also plays a growing role in smart and sustainable tourism initiatives. Smart tourism builds on digital technologies such as AI, big data, and IoT to improve destination management and balance economic, environmental, and social objectives (Gössling and Mei, 2025). AI-driven systems can support more sustainable tourism practices by optimizing resource use, managing visitor flows, and encouraging lower-impact travel choices (Makivić *et al.*, 2024). These developments highlight the potential for AI to enhance both tourist experiences and destination sustainability when guided by appropriate governance frameworks (Schattenberg, 2024).

In Morocco, tourism authorities and businesses are increasingly adopting digital technologies to enhance destination competitiveness. Marrakech, one of the country's leading tourist destinations, has gradually embraced smart city and smart tourism initiatives, integrating ICT and AI tools into mobility, information services, and destination management (Si Mohamed Ben Massou, 2021). These efforts align with national strategies promoting innovation and AI as drivers of economic performance and sustainability (Chouraik, 2024). However, as these initiatives remain relatively recent, their effectiveness and acceptance by tourists require further empirical investigation. Despite growing interest in AI-based personalization, important research gaps remain. Existing studies are largely concentrated in specific regions and service contexts, and evidence from emerging tourism markets is limited (Chotisarn and Phuthong, 2025). Moreover, the role of trust in AI has received insufficient attention. Trust reflects tourists' perceptions of reliability, transparency, and data security

in AI systems and may shape how personalization influences satisfaction and loyalty. Prior research indicates that ethical and trustworthy AI increases tourists' willingness to engage with AI-based services (Gössling and Mei, 2025). Without trust, personalized services may fail to generate satisfaction or long-term loyalty.

To address these gaps, this study examines the impact of AI-based personalization on tourist satisfaction and loyalty in Marrakech, with particular attention to the mediating role of trust in AI. The objectives are threefold: to assess the effect of AI-driven personalization on tourist satisfaction, to analyse the relationship between satisfaction and loyalty, and to evaluate how trust in AI influences these relationships. By doing so, the study contributes to the literature in two ways. First, it examines how AI-driven personalization shapes the relationship between satisfaction and loyalty in tourism services. Second, it highlights the role of trust in AI as a distinct mechanism influencing loyalty in technology-mediated tourism experiences. The study therefore moves beyond a simple contextual replication by examining how these relationships operate in an emerging tourism destination where AI adoption is still evolving.

2. Theoretical Background and Hypotheses Development

2.1 AI-based Personalization in Tourism

AI is increasingly shaping tourism services through personalized applications. AI-based tools such as chatbots, virtual assistants, and recommendation systems analyse large datasets to generate tailored travel information and support (Ferhataj, 2024). By learning from users' preferences and behaviours, these systems can provide customized itineraries, real-time guidance, and on-demand assistance, which may improve efficiency and overall experience quality (Sousa, Cardoso and Dias, 2024). While prior research emphasizes the efficiency and convenience of these AI-based tools, it also raises questions regarding transparency, data governance, and the reliability of algorithmic recommendations. These tensions suggest that personalization alone may not guarantee positive user responses. As a result, AI-based personalization creates both opportunities and tensions. While it may improve relevance and efficiency, it also raises concerns regarding user autonomy, data protection, and the reliability of automated decisions. These tensions make trust a central issue in AI-mediated tourism services.

2.2 Technology Acceptance Model (TAM) in Tourism

The Technology Acceptance Model remains a core framework for explaining individuals' intentions to adopt new technologies (Davis, 1989). The model emphasizes perceived ease of use and perceived usefulness as key determinants of user acceptance. Perceived ease of use refers to the degree to which a system is considered effortless, while perceived usefulness reflects the extent to which it enhances task performance or experience quality (Tao, 2008). In tourism, TAM has been widely applied to digital services such as mobile applications and AI-enabled platforms. Prior studies show that intuitive interfaces increase both perceived ease of use and perceived usefulness, which in turn encourage adoption (Wong, 2020). Empirical evidence further indicates that usability and interface design significantly shape these perceptions in tourism applications (Xiong and Zhang, 2024). Applied to AI-based services, this suggests that easy-to-use AI interfaces enhance perceived usefulness and may increase satisfaction. Accordingly, the following hypotheses are proposed:

- H1: Perceived ease of use of AI-based tourism services positively influences perceived usefulness.
- H2: Perceived usefulness of AI-based tourism services positively influences tourist satisfaction.
- H3: Perceived ease of use of AI-based tourism services positively influences tourist satisfaction.

2.3 Perceived Personalization and Tourist Satisfaction

AI enables advanced personalization in tourism by tailoring services based on individual preferences, location, and prior behaviour. Using machine learning and predictive analytics, AI systems can deliver customized recommendations, including itineraries and activity suggestions (Kumar et al., 2025). Empirical studies indicate that such personalization enhances satisfaction by aligning services with tourists' interests and values (Semwal et al., 2024). In hospitality contexts, AI-powered customization has been shown to improve emotional engagement and perceived service quality (Makivić et al., 2024). Personalized recommendations can also support sustainable choices by suggesting environmentally responsible activities (Ferhataj, 2024). When AI-driven services align closely with user expectations, satisfaction is likely to increase. Therefore, the following hypothesis is proposed:

- H4: AI-driven personalization in tourism services positively influences tourist satisfaction.

2.4 Tourist Satisfaction and Loyalty Intention

Tourist satisfaction reflects both cognitive evaluations of service performance and emotional responses to the travel experience. A substantial body of research shows that satisfied tourists are more likely to demonstrate loyalty behaviours, including revisit intentions and positive word of mouth (Mbira, 2024). This relationship has been consistently observed across tourism and service contexts, where satisfaction acts as a key antecedent of loyalty (Seok, 2013). Recent studies confirm that this mechanism also applies in AI-mediated environments. Tailored AI services enhance satisfaction, which subsequently strengthens loyalty intentions (Mishra, Anifa and Naidu, 2025). Based on this reasoning, the following hypothesis is proposed:

- H5: Tourist satisfaction with tourism experiences positively influences customer loyalty.

2.5 The Role of Trust in AI Technology

Trust is a critical factor in technology-based service interactions. In tourism, trust in AI reflects beliefs about the reliability, security, and fairness of AI-driven recommendations. Higher levels of trust increase users' willingness to rely on AI services. Empirical studies show that trust in AI positively affects satisfaction with AI-supported tourism services (Makivić et al., 2024). Trust is also closely linked to loyalty outcomes. Research on AI-enabled platforms indicates that trust strengthens both satisfaction and loyalty, particularly when combined with personalized features (Hassan, Abdelraouf and El-Shihy, 2025). In sustainable tourism contexts, trust further supports engagement with data-driven recommendations and responsible choices (Topsakal, 2024). Trust may therefore play two roles. It can influence loyalty directly, but it may also shape how tourists interpret their satisfaction with AI-based services. In technology-mediated environments, trust may compensate for uncertainty linked to automated decision systems. Accordingly, the following hypotheses are proposed:

- H6: Trust in AI positively influences customer loyalty.
- H7: Trust in AI positively moderates the relationship between customer satisfaction and customer loyalty.

All hypotheses are summarized in the research model presented in Figure 1.

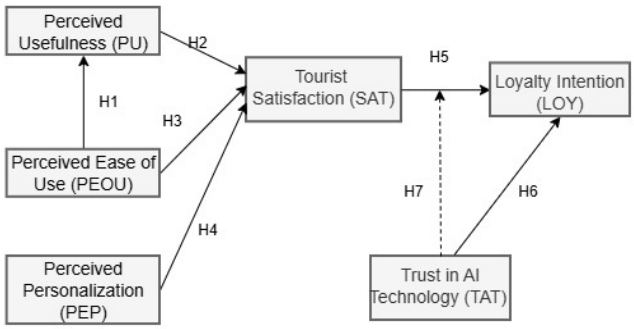

Figure 1: Research model Source: Authors (adapted from TAM Model)

3. Methodology

3.1 Participants and Procedure

Data were collected through a survey administered to domestic and international tourists visiting Marrakech, Morocco. Participants were eligible if they had used at least one AI-based tourism service during their stay, such as hotel chatbots, recommendation systems, or smart booking platforms. The questionnaire was available in English and French to reflect the linguistic diversity of visitors. In total, 282 valid responses were collected, including 241 in English and 41 in French. The survey was distributed between June and October 2025 using Google Forms, via QR codes placed in hotels, riads, and cultural sites, as well as through travel-related online platforms. Participation was voluntary, anonymous, and based on informed consent. No financial incentives were offered. All items were measured on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Screening questions ensured that respondents had interacted with AI-based tourism services. The datasets were merged and harmonized in English prior to analysis. The sample size met recommended

thresholds for structural equation modelling (Hair and and Sarstedt, 2011). The sample consisted of 59.6% male and 40.4% female respondents. Most participants were aged between 18 and 25 (41.8%), followed by 26 to 35 (31.9%). Regarding education, 51.4% held a high school diploma, 15.6% a bachelor's degree, and 8.8% a master's or doctoral degree. Students (33%), freelancers (21.3%), and private-sector employees (20.6%) formed the largest professional groups.

3.2 Measures

All constructs were measured using validated scales adapted from prior research and rated on five-point Likert scales. Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) were measured using four items each, drawn from (Davis, 1989; Alshamsi et al., 2025). Perceived Personalization (PEP) was assessed using items from (Li, 2016; Alizadeh and Nazarpour Kashani, 2024; Lei et al., 2024). Tourist Satisfaction (SAT) followed (Meng, Tepanon and Uysal, 2008), while Loyalty Intentions (LOY) were measured based on (Chen and Tsai, 2007; Gao et al., 2024). Trust in AI Technology (TAT) was evaluated using items adapted from (McKnight et al., 2011; Choung, David and Ross, 2023).

3.3 Data Analysis

The proposed model was tested using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS version 4.1.1.5. This method is suitable for exploratory research and complex models with moderate sample sizes (Hair et al., 2021). A two-stage approach was applied following (Henseler, Ringle and Sarstedt, 2015). First, the measurement model was assessed for reliability and validity. Indicator reliability was confirmed through outer loadings above 0.70. Internal consistency was evaluated using Cronbach's alpha and Composite Reliability, while convergent validity was established through Average Variance Extracted values exceeding 0.50 (Hair et al., 2021). Discriminant validity was assessed using the Fornell-Larcker criterion (Fornell and Larcker, 1981), and the Heterotrait-Monotrait ratio. Second, the structural model was evaluated using bootstrapping with 5,000 subsamples to estimate path significance. To address potential common method variance, procedural remedies were applied, and Harman's single-factor test was conducted. The first factor explained 36.1% of the variance, below the critical threshold, indicating that common method bias was not a major concern (Podsakoff et al., 2003).

4. Results

4.1 Measurement Model

4.1.1 Reliability

Prior to assessing the measurement model, item distributions were examined. Skewness and kurtosis values fell within acceptable ranges, indicating no severe departures from normality (Hair et al., 2022). Internal consistency reliability was then evaluated using Cronbach's alpha and composite reliability. Following established guidelines, values above 0.70 for Cronbach's alpha and above 0.80 for composite reliability were considered acceptable (Cheung et al., 2024). All constructs demonstrated satisfactory reliability. The overall instrument showed high internal consistency ($\alpha = 0.965$). At the construct level, Cronbach's alpha values ranged from 0.751 to 0.879, while composite reliability values ranged from 0.842 to 0.917. These results indicate adequate internal consistency and reliability of the measurement scales.

4.1.2 Convergent Validity

Convergent validity was assessed through indicator loadings and average variance extracted (AVE). All indicators loaded significantly on their respective constructs ($p < 0.001$), with standardized loadings exceeding the recommended threshold of 0.70. AVE values ranged from 0.573 to 0.735, surpassing the minimum criterion of 0.50 (Fornell and Larcker, 1981). Together, these results confirm satisfactory convergent validity for all constructs.

4.1.3 Discriminant Validity

Discriminant validity was evaluated using the heterotrait–monotrait ratio and the Fornell–Larcker criterion. All HTMT values were below the conservative threshold of 0.90, and none of the bootstrapped confidence intervals included 1.0, indicating that constructs were empirically distinct (Henseler, Ringle and Sarstedt, 2015). The

Fornell–Larcker assessment further confirmed that the square root of each construct's AVE exceeded its correlations with other constructs. These findings provide strong evidence of discriminant validity.

4.1.4 Model Fit

Overall model fit was assessed using the standardized root mean square residual. The SRMR value was 0.064, below the recommended cutoff of 0.08, indicating acceptable model fit (Panayides, 2013) (Hu and Bentler, 1999). Bootstrap-based fit indices further confirmed that discrepancy measures remained below their respective confidence thresholds (Henseler, Ringle and Sarstedt, 2015).

4.2 Structural Model

The structural model was tested using PLS-SEM with 5,000 bootstrap resamples, following established recommendations (Henseler, Ringle and Sarstedt, 2015; Hair et al., 2021). Path coefficients, significance levels, and explained variance were examined. The results support five of the seven proposed hypotheses. Perceived Ease of Use had a strong positive effect on Perceived Usefulness (H1; β = 0.805, p < 0.001), consistent with TAM (Davis, 1989). Perceived Usefulness did not significantly influence Tourist Satisfaction (H2; β = 0.085, p = 0.182), whereas Perceived Ease of Use had a significant positive effect on Satisfaction (H3; β = 0.374, p < 0.001). Perceived Personalization also positively influenced Satisfaction (H4; β = 0.465, p < 0.001). Tourist Satisfaction significantly predicted Loyalty Intention (H5; β = 0.448, p < 0.001), in line with prior tourism research (Prayag et al., 2017). Trust in AI Technology had a strong direct effect on Loyalty Intention (H6; β = 0.520, p < 0.001). However, its moderating effect on the Satisfaction–Loyalty relationship was not supported (H7; β = 0.014, p = 0.591). The hypothesis testing results are summarized in Figure 2.

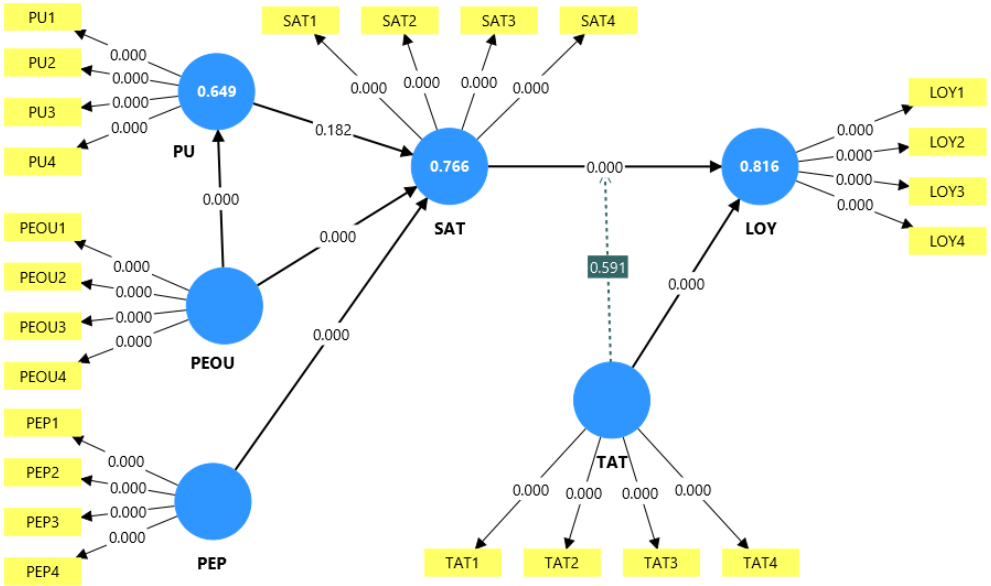

Figure 2: Research path model after bootstrap

The model explained 65.5% of the variance in Loyalty Intention (R^2 = 0.655), 51.1% in Tourist Satisfaction (R^2 = 0.511), and 64.8% in Perceived Usefulness (R^2 = 0.648), indicating moderate to substantial explanatory power (Hair et al., 2021).

5. Discussion

The results reveal several consistent patterns regarding AI-driven personalization in tourism. Perceived ease of use had a strong positive effect on perceived usefulness, confirming the logic of the Technology Acceptance Model (Davis, 1989). Ease of use and perceived personalization both significantly increased tourist satisfaction. This indicates that tourists value AI services that are intuitive and tailored to their preferences. Satisfaction, in turn, strongly predicted loyalty intentions, which is consistent with extensive tourism research identifying satisfaction as a central antecedent of loyalty (Wang and Li, 2023).

Trust in AI technology emerged as the strongest direct predictor of loyalty. This finding reinforces recent evidence suggesting that trust plays a critical role in shaping post-adoption outcomes in AI-enabled services

(Hassan, Abdelraouf and El-Shihy, 2025) When tourists perceive AI systems as reliable and secure, they are more willing to continue using them and to recommend them. Although trust did not moderate the satisfaction–loyalty relationship, its strong direct effect highlights its importance as an independent driver of loyalty.

Interestingly, perceived usefulness did not significantly influence satisfaction or loyalty. One possible explanation is that, in highly intuitive and personalized systems, usefulness may be taken for granted. When AI tools are easy to use and enjoyable, incremental perceptions of utility may no longer be decisive. Similar patterns have been observed in contexts where ease of use and experiential value dominate user evaluations (Nira, 2025).

Beyond confirming several established relationships, the results also raise theoretical questions about the role of trust in AI-mediated tourism experiences. In contexts where AI systems are already relatively easy to use, usability alone may no longer be sufficient to explain loyalty. Instead, trust appears to function as a key mechanism that allows users to rely on automated recommendations. This suggests that in mature digital environments, the role of trust may shift from facilitating adoption to sustaining continued engagement with AI-based services.

Overall, the findings suggest that personalization, satisfaction, and trust jointly shape tourist loyalty in AI-mediated tourism. AI-based services appear most effective when they are simple to use, aligned with user preferences, and perceived as trustworthy.

6. Conclusion

This study examined how AI-driven personalization influences tourist satisfaction and loyalty in Marrakech, with a focus on trust in AI technology. The findings show that ease of use and personalization enhance satisfaction, which in turn strengthens loyalty intentions. Trust in AI plays a central role by directly reinforcing loyalty, even though it does not moderate the satisfaction–loyalty relationship. The results suggest that AI-based conversational and recommendation systems are more likely to be integrated into tourism experiences when they are intuitive, personalized, and trusted. The study contributes to the growing literature on smart tourism by highlighting the conditions under which AI personalization translates into positive post-adoption outcomes.

6.1 Theoretical Implications

This research extends the Technology Acceptance Model by examining how personalization and trust shape post-adoption outcomes in AI-based tourism services. While TAM explains technology acceptance, the findings suggest that continued engagement depends on experiential factors such as perceived personalization and trust in automated systems. The study bridges technology adoption theory and tourism experience research by showing how usability, personalization, and trust jointly shape post-use evaluations. It also contributes to the literature on trust in AI by confirming its relevance beyond initial adoption stages. The findings therefore contribute to ongoing discussions on the role of trust in AI environments, particularly in tourism contexts where digital interaction increasingly shapes the visitor experience.

6.2 Practical Implications

For tourism managers and destination stakeholders, the results underline the importance of designing AI services that are user-friendly, personalized, and transparent. Ensuring that AI tools are easy to interact with encourages use and satisfaction. Trust should be actively fostered through clear communication about data protection, system reliability, and ethical use of AI. Since personalization enhances satisfaction, AI systems should tailor recommendations to tourists' preferences while supporting sustainable tourism objectives. A responsible and user-centred AI strategy can improve visitor experiences and strengthen destination loyalty.

6.3 Limitations and Future Research

This study has several limitations. First, its cross-sectional design limits causal interpretation. Longitudinal or experimental approaches could better capture changes in trust, satisfaction, and loyalty over time. Second, the focus on Marrakech restricts generalisability. Comparative studies across destinations would help assess contextual differences. Third, although the model explains a substantial share of variance, other factors such as privacy concerns, prior AI experience, or actual usage behaviour were not included. Future research could incorporate these variables to provide a more comprehensive understanding of AI-driven tourism experiences.

Ethics Declaration

This study was based on an anonymous survey with voluntary participation. Informed consent was obtained from all respondents. No personal or sensitive data were collected. According to applicable research guidelines for non-invasive social science research, formal ethical approval was not required.

AI Declaration

AI-based tools were used solely for language editing, spelling, and grammatical corrections. All scientific content, analysis, and interpretations were produced by the author.

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References

Alizadeh, H. and Nazarpour Kashani, H. (2024) "The impact of perceived experience with ChatGPT on online consumers' information searching behavior: an empirical study of Iranian college students," *Asia Pacific Journal of Marketing and Logistics* [Preprint]. Available at: https://doi.org/10.1108/APJML-02-2024-0140.

Alshamsi, A.I. *et al.* (2025) "A cross-sectional study to explore the relationship between the technology acceptance model and burnout and depression among pharmacists working with a pharmacy robotic dispensing system," *Frontiers in Psychology*, 15. Available at: https://doi.org/10.3389/fpsyg.2024.1436518.

Chen, C.-F. and Tsai, D. (2007) "How Destination Image and Evaluative Factors Affect Behavioral Intentions?," *Tourism Management*, 28, pp. 1115–1122. Available at: https://doi.org/10.1016/j.tourman.2006.07.007.

Cheung, G.W. *et al.* (2024) "Reporting reliability, convergent and discriminant validity with structural equation modeling: A review and best-practice recommendations," *Asia Pacific Journal of Management*, 41(2), pp. 745–783. Available at: https://doi.org/10.1007/s10490-023-09871-y.

Chotisarn, N. and Phuthong, T. (2024) "Impact of Artificial Intelligence-Enabled Service Attributes on Customer Satisfaction and Loyalty in Chain Hotels: Evidence from Coastal Tourism Destinations in Western Thailand." Rochester, NY: Social Science Research Network. Available at: https://doi.org/10.2139/ssrn.5051732.

Chotisarn, N. and Phuthong, T. (2025) "Impact of artificial intelligence-enabled service attributes on customer satisfaction and loyalty in chain hotels: Evidence from coastal tourism destinations in western Thailand," *Social Sciences & Humanities Open*, 11, p. 101306. Available at: https://doi.org/10.1016/j.ssaho.2025.101306.

Choung, H., David, P. and Ross, A. (2023) "Trust in AI and Its Role in the Acceptance of AI Technologies," *International Journal of Human–Computer Interaction*, 39(9), pp. 1727–1739. Available at: https://doi.org/10.1080/10447318.2022.2050543.

Chouraik, C. (2024) "Sustainable AI in Morocco: A Systematic Review of Opportunities, Challenges and Policy Directions," *Science & Technology Journal*, Vol.04, pp. 11–26. Available at: https://doi.org/10.34874/PRSM.ehei-jst-vol3iss2.51336.

Davis, F.D. (1989) "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology," *MIS Quarterly*, 13(3), pp. 319–340. Available at: https://doi.org/10.2307/249008.

Ferhataj, A. (2024) *Ai-Driven Personalization In Tourism: Analyzing Sustainable Travel Preferences With Machine Learning*.

Fornell, C. and Larcker, D.F. (1981) "Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics," *Journal of Marketing Research*, 18(3), pp. 382–388. Available at: https://doi.org/10.1177/002224378101800313.

Gao, J. *et al.* (2024) "Achieving destination sustainability: How tourist-to-tourist interaction quality affects tourist loyalty?," *PLOS ONE*, 19(8), p. e0296944. Available at: https://doi.org/10.1371/journal.pone.0296944.

García-Madurga, M.-Á. and Grilló-Méndez, A.-J. (2023) "Artificial Intelligence in the Tourism Industry: An Overview of Reviews," *Administrative Sciences*, 13(8), p. 172. Available at: https://doi.org/10.3390/admsci13080172.

Gössling, S. and Mei, X. (2025) "AI and sustainable tourism: an assessment of risks and opportunities for the SDGs," *Current Issues in Tourism*, pp. 1–14. Available at: https://doi.org/10.1080/13683500.2025.2477142.

Hair *et al.* (2021) *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R: A Workbook*. Cham: Springer International Publishing (Classroom Companion: Business). Available at: https://doi.org/10.1007/978-3-030-80519-7.

Hair, J. *et al.* (2022) *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*.

Hair, J.F., Ringle ,Christian M. and and Sarstedt, M. (2011) "PLS-SEM: Indeed a Silver Bullet," *Journal of Marketing Theory and Practice*, 19(2), pp. 139–152. Available at: https://doi.org/10.2753/MTP1069-6679190202.

Hassan, N., Abdelraouf, M. and El-Shihy, D. (2025) "The moderating role of personalized recommendations in the trust–satisfaction–loyalty relationship: an empirical study of AI-driven e-commerce," *Future Business Journal*, 11(1), p. 66. Available at: https://doi.org/10.1186/s43093-025-00476-z.

Henseler, J., Ringle, C.M. and Sarstedt, M. (2015) "A new criterion for assessing discriminant validity in variance-based structural equation modeling," *Journal of the Academy of Marketing Science*, 43(1), pp. 115–135. Available at: https://doi.org/10.1007/s11747-014-0403-8.

Hu, L. and Bentler, P.M. (1999) "Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives," *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), pp. 1–55. Available at: https://doi.org/10.1080/10705519909540118.

Jhie, L. (2024) "Tourism is an Integral Part of Global Socio-economic Development," *Journal of Tourism & Hospitality*, 13(2), pp. 1–2. Available at: https://doi.org/10.35248/2167-0269.24.13.546.

Kumar, A.V.S. *et al.* (2025) "AI-Driven Personalization in Tourism: Balancing Innovation with Ethical Challenges," in *AI Technologies for Personalized and Sustainable Tourism*. IGI Global Scientific Publishing, pp. 31–58. Available at: https://doi.org/10.4018/979-8-3693-5678-4.ch002.

Lei, S.S.I. *et al.* (2024) "Recipe for perceived personalization in hotels," *Tourism Management*, 100, p. 104818. Available at: https://doi.org/10.1016/j.tourman.2023.104818.

Li, C. (2016) "When does web-based personalization really work? The distinction between actual personalization and perceived personalization," *Computers in Human Behavior*, 54, pp. 25–33. Available at: https://doi.org/10.1016/j.chb.2015.07.049.

Ma, S. (2024) "Enhancing Tourists' Satisfaction: Leveraging Artificial Intelligence in the Tourism Sector," *Pacific International Journal*, 7, pp. 89–98. Available at: https://doi.org/10.55014/pij.v7i3.624.

Makivić, R. *et al.* (2024) "AI Impact on Hotel Guest Satisfaction via Tailor-Made Services: A Case Study of Serbia and Hungary," *Information*, 15(11), p. 700. Available at: https://doi.org/10.3390/info15110700.

Mbira, C. (2024) "Effect of Destination Image on Tourist Satisfaction and Destination Loyalty: A Study of Ecotourism Destinations in Uganda," *Journal of Hospitality and Tourism*, 4, pp. 35–45. Available at: https://doi.org/10.47672/jht.1977.

McKnight, D. *et al.* (2011) "Trust in a specific technology: An Investigation of its Components and Measures," *ACM Transactions on Management Information Systems*, 2, pp. 12–32. Available at: https://doi.org/10.1145/1985347.1985353.

Meng, F., Tepanon, Y. and Uysal, M. (2008) "Measuring tourist satisfaction by attribute and motivation: The case of a nature-based resort," *Journal of Vacation Marketing*, 14(1), pp. 41–56. Available at: https://doi.org/10.1177/1356766707084218.

Mishra, S., Anifa, M. and Naidu, J. (2025) "AI-Driven Personalization in Tourism Services: Enhancing Tourist Experiences and Business Performance," in *Integrating Architecture and Design Into Sustainable Tourism Development*. IGI Global Scientific Publishing, pp. 1–20. Available at: https://doi.org/10.4018/979-8-3693-7388-0.ch001.

Nira, R. (2025) "AI-Driven Hyper-Personalization in Hospitality: Application, Present and Future Opportunities, Challenges, and Guest Trust Issues," *International Journal of Research and Innovation in Social Science*, IX, pp. 5562–5573. Available at: https://doi.org/10.47772/IJRISS.2025.90400397.

Panayides, P. (2013) "Coefficient Alpha: Interpret With Caution," *Europe's Journal of Psychology*, 9. Available at: https://doi.org/10.5964/ejop.v9i4.653.

Podsakoff, P.M. *et al.* (2003) "Common method biases in behavioral research: A critical review of the literature and recommended remedies," *Journal of Applied Psychology*, 88(5), pp. 879–903. Available at: https://doi.org/10.1037/0021-9010.88.5.879.

Prayag, G. *et al.* (2017) "Understanding the Relationships between Tourists' Emotional Experiences, Perceived Overall Image, Satisfaction, and Intention to Recommend," *Journal of Travel Research*, 56(1), pp. 41–54. Available at: https://doi.org/10.1177/0047287515620567.

Schattenberg, P. (2024) "Emphasizing the importance of sustainable and regenerative tourism," *AgriLife Today*, 4 December. Available at: https://agrilifetoday.tamu.edu/2024/12/04/emphasizing-the-importance-of-sustainable-and-regenerative-tourism/ (Accessed: November 29, 2025).

Semwal, R. *et al.* (2024) "AI-Powered Personalization and Emotional Intelligence Integration for Enhanced Service Marketing in Transformative Tourism Experiences," in *2024 International Conference on Communication, Computer Sciences and Engineering (IC3SE)*. *2024 International Conference on Communication, Computer Sciences and Engineering (IC3SE)*, pp. 1851–1856. Available at: https://doi.org/10.1109/IC3SE62002.2024.10592909.

Seok, L. (2013) "Major Moderators Influencing the Relationships of Service Quality, Customer Satisfaction and Customer Loyalty," *Asian Social Science*, 9, pp. 1–1. Available at: https://doi.org/10.5539/ass.v9n2p1.

Si Mohamed Ben Massou (2021) "Tourism development in the smart city: the case of the city of Marrakech," *City and Tourism*, 1(Issue 1). Available at: https://doi.org/10.21494/ISTE.OP.2023.0927.

Sousa, A.E., Cardoso, P. and Dias, F. (2024) "The Use of Artificial Intelligence Systems in Tourism and Hospitality: The Tourists' Perspective," *Administrative Sciences*, 14(8), p. 165. Available at: https://doi.org/10.3390/admsci14080165.

Tao, D. (2008) "Understanding Intention to Use Electronic Information Resources: A Theoretical Extension of the Technology Acceptance Model (TAM)," *AMIA Annual Symposium Proceedings*, 2008, pp. 717–721.

Topsakal, Y. (2024) "Artificial Intelligence-Based Sustainable Tourism Planning: A Conceptual Model Proposal," in B. Varghese and S. H. (eds.) *Advances in Hospitality, Tourism, and the Services Industry*. IGI Global, pp. 65–94. Available at: https://doi.org/10.4018/979-8-3693-3715-8.ch004.

Wang, L. and Li, X. (2023) "The five influencing factors of tourist loyalty: A meta-analysis," *PLOS ONE*. Edited by M. Shafi, 18(4), p. e0283963. Available at: https://doi.org/10.1371/journal.pone.0283963.

Wong, A.T.-T. (2020) “E-Tourism: How Customers Intention to use be Affected?,” *Academy of Marketing Studies Journal*, 24(4), pp. 1–310.

Xiong, S. and Zhang, T. (2024) “Enhancing tourist loyalty through location-based service apps: Exploring the roles of digital literacy, perceived ease of use, perceived autonomy, virtual-content congruency, and tourist engagement,” *PLOS ONE*, 19(1), p. e0294244. Available at: https://doi.org/10.1371/journal.pone.0294244.