TOURISM

Exploring the Factors Influencing User Attitudes and AI Chatbot Use in the Tourism Sector: Evidence from Indonesia

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ABSTRACT

Purpose: This study investigates the influence of perceived ease of use, perceived usefulness, perceived trust, anthropomorphism, and personalization on user attitudes, and how these attitudes affect the intention to use AI chatbots in the tourism sector.

Method: A quantitative, descriptive-explanatory approach was employed through an online survey distributed to individuals who had prior experience using AI chatbots for travel purposes. A total of 278 valid responses were collected using purposive sampling. The research model was analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS.

Result: The findings indicate that perceived ease of use, perceived usefulness, perceived trust, anthropomorphism, and personalization all positively and significantly influence user attitudes toward AI chatbots. Furthermore, attitude was found to exert a strong and significant impact on the intention to use AI chatbots for tourism, confirming its role as a key mediating variable. Among the antecedents, personalization emerged as the most influential factor in shaping user attitudes.

Practical Implications for Economic Growth and Development: This study offers valuable insights for AI developers and tourism stakeholders to design more user-centered, trustworthy, and personalized chatbot services. Enhancing the adoption of AI chatbots can improve the efficiency of tourism services, support digital transformation, increase tourist satisfaction, and contribute to sustainable economic growth in the tourism sector.

Originality/Value: This study extends the Technology Acceptance Model (TAM) framework by incorporating perceived trust, personalization, and anthropomorphism in the context of AI chatbot adoption from the tourists' perspective in Indonesia.

Keywords: *AI Chatbot, Tourism, Technology Acceptance Model, Attitude, Intention to Use*

INTRODUCTION

The adoption of artificial intelligence (AI) has expanded rapidly, penetrating almost all industrial sectors. In the education sector, AI is utilized to enhance the learning process by delivering educational materials, answering queries, and providing real-time feedback, all of which improve learning effectiveness (Ndunagu et al., 2025; Nja et al., 2023). In the construction sector, AI plays a significant role in project management, particularly in areas such as planning, risk control, and resource optimization (Na et al., 2023). Similarly, in the banking and retail sectors, AI-powered chatbots function as virtual assistants, providing round-the-clock customer service, automating responses, and enhancing operational efficiency (Bakri et al., 2024; Wube et al., 2022).

The tourism industry has also seen similar advancements, with AI increasingly adopted due to its ability to deliver fast, interactive, and personalized services to travelers (Chang, 2023; Nguyen et al., 2023). AI chatbots are now used to assist tourists at various stages of their journey, from trip planning and destination recommendations to booking transportation and accommodations, as well as providing real-time information during the trip (Kodors et al., 2024). This demonstrates that AI has transitioned from being a mere operational tool to a digital travel assistant that plays a direct role in shaping the traveler's experience.

The implementation of AI chatbots in the tourism industry is evident across numerous global platforms. For instance, Expedia has developed a chatbot named "Romie," which can plan itineraries, provide travel tips, and recommend hotels through user chat groups. Similarly, Google, through its Gemini AI, offers an automated itinerary planning feature that is tailored to individual tourist preferences (Ding et al., 2025). Additionally, services such as GuideGeek, integrated with platforms like WhatsApp and Instagram, can provide instant recommendations for accommodations, restaurants, and tourist activities, highlighting how AI chatbots have evolved into flexible and practical personal assistants for modern travelers (George, 2025).

Since late November 2022, the development of AI chatbot technology has accelerated significantly, triggering a phenomenon known as the "chatbot competition" among global AI technology providers (Rudolph et al., 2023). This competition has resulted in the emergence of various chatbot platforms, including ChatGPT, Copilot, Gemini, and Claude, each continuing to innovate in features, interaction intelligence, and personalization capabilities in an effort to attract users (Mavrych et al., 2025; Okamoto, 2025). This development indicates that the success of AI chatbot adoption is not solely dependent on technological sophistication, but also on users' perceptions and attitudes toward the technology.

The increasing adoption of AI chatbots in the tourism industry has prompted academic interest in studying the factors influencing this technology's adoption. Previous studies, both internationally (Pillai & Sivathanu, 2020; Potdevin et al., 2021; Xu & Chen, 2025) and within Indonesia (Khotama & Yulianton, 2025; Naufal et al., 2023; Pitanatri & Wijaya, 2021), have examined the adoption of AI chatbots in tourism. However, most research in Indonesia has focused on the perspectives of tourism companies or organizations, particularly regarding the use of AI chatbots for marketing and customer service. Research that specifically explores tourists' intentions to use AI chatbots from the end-user perspective remains relatively limited.

In response to this gap, this study seeks to investigate the factors influencing Indonesian tourists' intention to use AI chatbots, using the Technology Acceptance Model (TAM) framework. This model will be expanded by incorporating additional variables, such as perceived trust, personalization, and anthropomorphism, to provide a more comprehensive understanding of AI adoption behaviors within the tourism context. Furthermore, attitude will be used as a mediating variable to explain the psychological mechanisms linking tourists' perceptions of technology with their intention to use AI chatbots.

This research considers the large and potential tourism market in Indonesia, which also represents a promising target for AI technology providers. The study is expected to contribute both theoretically to the growing literature on AI adoption in the tourism sector and practically, by providing AI providers with insights into designing chatbots that align with tourists' needs and preferences. Therefore, the primary aim of this study is to explore how perceived ease of

use, perceived usefulness, perceived trust, anthropomorphism, and personalization influence user attitudes, which in turn impact their intention to use AI chatbots.

Hypotheses Development

Perceived Ease of Use on Attitude

According to the Technology Acceptance Model (TAM), Perceived Ease of Use (PEOU) refers to the degree to which an individual believes that using a technology requires minimal effort (Pillai & Sivathanu, 2020). According to TAM, when a system is perceived as easy to use, users are more likely to develop favorable evaluations of that system. This is because reduced cognitive and operational effort decreases frustration and enhances comfort during interactions (Fahlevi & Sinambela, 2024; Purwianti et al., 2024). In the context of AI chatbots, ease of use enables users to interact with the system smoothly and efficiently, fostering a positive internal evaluation of the technology (Istiqomah & Alfansi, 2023; Talha et al., 2025). As a result, when users perceive AI chatbots as easy to operate, they are more likely to form a positive attitude (ATT) toward their use, which in turn strengthens their intention to use the technology. Based on this rationale, the following hypothesis is proposed:

H1: Perceived ease of use has a positive effect on attitude

Perceived Usefulness on Attitude

Within the TAM framework, Perceived Usefulness (PU) refers to the extent to which an individual believes that using a technology will enhance task productivity and performance (Sudaryanto et al., 2023). TAM posits that users are likely to form positive attitudes toward a system when they perceive it as beneficial and capable of improving efficiency and outcomes (Fahlevi & Sinambela, 2024; Sujood et al., 2023). In the context of AI chatbot usage, perceived usefulness is derived from factors such as accurate information delivery, time efficiency, and decision support, all of which contribute to users' perceptions of the technology's value (Hoang et al., 2025; Vidarshika et al., 2025). As users recognize that AI chatbots help them accomplish tasks more effectively, they are inclined to develop a favorable attitude (ATT) toward the technology, which reinforces their acceptance and intention to use it. Based on this rationale, the following hypothesis is proposed:

H2: Perceived usefulness has a positive effect on attitude

Perceived Trust on Attitude

Perceived Trust (PT) is a key concept in both the Technology Acceptance Model (TAM) and trust-based technology adoption theory, both of which emphasize trust as a foundational factor in shaping users' evaluations of technology (Choung et al., 2023; Kang et al., 2024). Trust refers to users' beliefs regarding a system's reliability, integrity, security, and the absence of potential risks (Luca Liehner et al., 2023). In the context of AI chatbot interactions, perceived trust helps reduce uncertainty and perceived vulnerability, allowing users to feel safe and confident when engaging with the technology (Hoang et al., 2025; Kim et al., 2021). When users trust that AI chatbots operate transparently, protect personal data, and provide reliable outputs, they are more likely to develop a positive attitude (ATT) toward their use, which, in turn, supports acceptance and the formation of their intention to use the technology. Based on this rationale, the following hypothesis is proposed:

H3: Perceived trust has a positive effect on attitude

Anthropomorphism on Attitude

Anthropomorphism (APM) is conceptualized within social response theory and human–computer interaction theory, which emphasize that users tend to respond socially and emotionally to technologies that display human-like characteristics (Liu et al., 2023). When AI chatbots exhibit human-like traits, such as conversational language, empathy, or responsiveness, users perceive the interaction as more natural and engaging (Pillai & Sivathanu, 2020). This perceived social presence enhances emotional connection and reduces the psychological distance between users and the technology (Kronemann et al., 2023). As a result, anthropomorphic features can promote positive evaluations and emotional responses, leading users to develop a favorable attitude (ATT) toward AI chatbots (Scarpi, 2024). Based on this rationale, the following hypothesis is proposed:

H4: Anthropomorphism has a positive effect on attitude

Figure 1. Research Framework
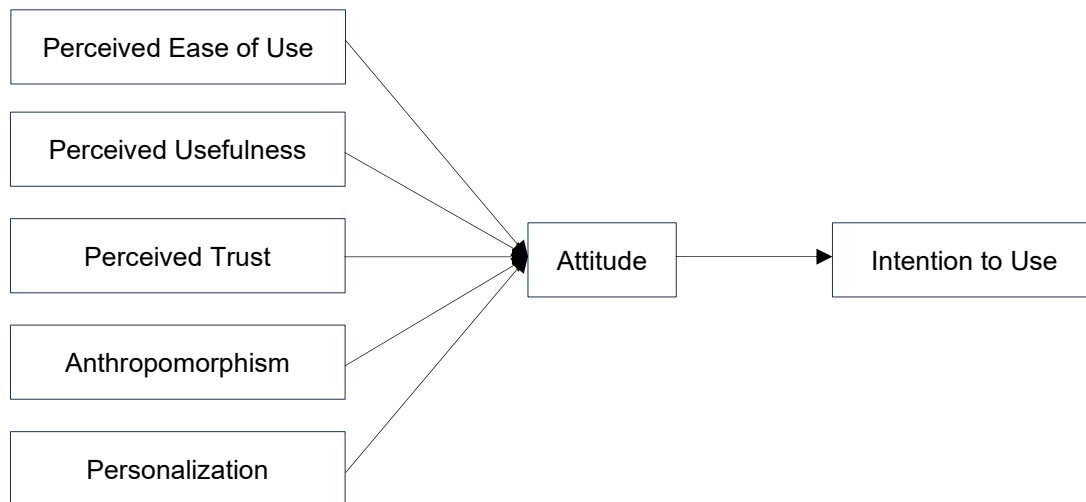
Source: Developed by the authors (2025)

Personalization on Attitude

Personalization (PN) is derived from the TAM framework and combined with the expectation–confirmation theory, highlighting the increasing importance of relevance and individual fit in shaping user evaluations (Liu et al., 2022). Personalized AI chatbot services tailor responses based on users' preferences, context, and needs, thereby enhancing perceived relevance and user satisfaction (Fan et al., 2022). When users feel that the technology understands and responds specifically to their individual requirements, they experience a sense of value and appreciation (de Cosmo et al., 2021). This tailored interaction reinforces positive perceptions and leads to more favorable attitudes toward AI chatbots (Kronemann et al., 2023). Based on this rationale, the following hypothesis is proposed:

H5: Personalization has a positive effect on attitude

Attitude on Intention to Use

Attitude and behavior relationships are fundamental to the TAM framework, which posits that attitude is a direct antecedent of behavioral intention (Na et al., 2023). Attitude reflects an individual's overall positive or negative evaluation of using a technology, shaped by beliefs,

emotions, and experiences (Ma et al., 2025; Popy & Bappy, 2020). In this context, when users hold positive attitudes toward AI chatbots, they are more likely to develop a strong intention to use them, as favorable evaluations encourage continued interaction and adoption (Lopes et al., 2024; Wang et al., 2025). Therefore, attitude plays a crucial role in mediating and predicting users' intention to use AI chatbots. Based on this rationale, the following hypothesis is proposed:

H6: Attitude has a positive effect on intention to use

METHOD

This study employs a quantitative approach with a descriptive-explanatory method (Purwianti et al., 2024). This approach was selected to analyze the relationships between variables, including the mediating role in the research model, which is analyzed using Partial Least Squares (PLS). The aim of the study is to examine the influence of the variables perceived ease of use, perceived usefulness, perceived trust, anthropomorphism, and personalization on attitudes toward the intention to use AI chatbots in the tourism sector.

The research population comprises individuals who have ever used an AI chatbot, with the sample focusing specifically on individuals who have used AI chatbots in the tourism sector, particularly during their travels. As the exact number of AI chatbot users in the tourism sector is unknown, the sample size was determined using the rule proposed by Hair et al. (2019), which recommends a sample size of ten times the number of items in the questionnaire. Given that the questionnaire contained 24 items, the minimum sample required was 240 respondents. In this study, 278 respondents participated in completing the questionnaire. The sampling technique used was purposive sampling, where respondents were selected based on specific criteria, namely individuals who had used AI chatbots for travel purposes. The research utilized an online questionnaire based on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). The questionnaire items are presented in Table 1.

Table 1. Measurement Items

Variable	Statement	Reference
Perceived Ease of Use	Chatbots for tourism require little mental effort to plan travel	(Pillai & Sivathanu, 2020)
	My interaction with chatbots for tourism is clear and understandable for planning my tours	(Pillai & Sivathanu, 2020)
	Overall, I think using a mobile payment app would improve my performance	(Bhatt et al., 2021)
Perceived Usefulness	Chatbots for tourism are useful for my travel planning	(Pillai & Sivathanu, 2020)
	Chatbots for tourism improve the efficiency of my travel planning	(Pillai & Sivathanu, 2020)
	Chatbots for tourism improve my travel planning performance	(Pillai & Sivathanu, 2020)
	The chatbot is able to solve my problems	(Rafiq et al., 2022)
Perceived Trust	I feel that information about travel provided by chatbots for tourism is honest and authentic	(Pillai & Sivathanu, 2020)
	I feel that chatbots for tourism have clarity of services provided and offer reliable opinions	(Pillai & Sivathanu, 2020)
	I feel that chatbots in tourism for travel planning are trustworthy	(Pillai & Sivathanu, 2020)
Anthropomorphism	I feel that chatbots for tourism are computer-animated and seem real	(Zhang et al., 2023)
	I feel chatbots for tourism have their own emotions	(Zhang et al., 2023)

Variable	Statement	Reference
	Interaction with chatbots for tourism feels natural	(Zhang et al., 2023)
Personalization	Tourism chatbots understand my specific moods	(Zhang et al., 2023)
	Tourism chatbots know what I really need	(Zhang et al., 2023)
	The services provided by chatbots for tourism are customized to my demands	(Zhang et al., 2023)
	Smart self-service machines offer me personalized services	(Chen et al., 2021)
Attitude	Using chatbots for tourism is effective	(Rafiq et al., 2022)
	Using chatbots for tourism is helpful	(Rafiq et al., 2022)
	Using chatbots for tourism is necessary	(Rafiq et al., 2022)
	Using chatbots for tourism is practical	(Rafiq et al., 2022)
Intention to Use	I will continue to use chatbots for tourism	(Zhang et al., 2023)
	I intend to use chatbots for tourism in the future	(Zhang et al., 2023)
	When required, I will use chatbots for tourism	(Zhang et al., 2023)

Source: Compiled by the authors (2025)

The data were collected online through platforms such as Google Forms. The data collection process involved the development and testing of questionnaires to ensure their validity and clarity. Questionnaire links were distributed individually, as well as through social media and community networks. Validity was assessed using construct validity, which was evaluated through confirmatory factor analysis (CFA) with SmartPLS. Reliability was tested using Cronbach's Alpha and Composite Reliability, with a minimum cut-off value of 0.70 considered acceptable for good reliability. Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS (Hair et al., 2019). This method was selected due to its ability to estimate complex latent relationships, enabling the testing of the mediating role of attitude on the independent variables and the intention to use. The analysis process included an evaluation of the measurement model (outer model) to test the validity and reliability of the indicators. The structural model (inner model) was then evaluated to assess the relationships between latent variables and their direct and indirect effects.

RESULT AND DISCUSSION

Demographics of Respondents

Table 2 below presents the demographic profile of the respondents in this study. The gender distribution is relatively balanced, with female respondents (53.6%) slightly outnumbering male respondents (46.4%). This suggests that the use of AI chatbots for travel planning is not predominantly skewed toward a single gender. Regarding age, the largest group of respondents is aged 18–24 years (56.1%), followed by those aged 25–34 years (27.0%) and 35–44 years (13.3%). This distribution indicates that younger users, particularly those in the Gen Z and early millennial age groups, are the most active users of AI chatbots in tourism-related activities.

Table 2. Respondents Demographics

Description	Frequency	Percentage
Gender		
Male	129	46.4%
Female	149	53.6%
Age		
< 18 years	6	2.2%
18 - 24 years	156	56.1%
25 - 34 years	75	27.0%
35 - 44 years	37	13.3%
45 - 54 years	3	1.1%
55 years and older	1	0.4%
Highest Level of Education		
Diploma	43	15.5%
Postgraduate	10	3.6%
Bachelor	104	37.4%
High School/Equivalent	121	43.5%
How Often Do You Use Chatbots for Travel Planning?		
Rarely (1-2 times a year)	54	19.4%
Sometimes (3-5 times a year)	96	34.5%
Often (More than 5 times a year)	128	46.0%
Types of AI Chatbots Used When Traveling		
ChatGPT	221	79.5%
Claude	10	3.6%
Gemini	33	11.9%
Microsoft Copilot	14	5.0%
Total Respondents	278	

Source: Processed data (2025)

Based on the educational background, respondents with a high school or equivalent education represent the largest proportion (43.5%), followed by those with a bachelor's degree (37.4%). This finding suggests that the use of AI chatbots for travel planning is not limited to individuals with higher academic qualifications; rather, it is also widely adopted by users with secondary education. In contrast, respondents with postgraduate education constitute a relatively small percentage (3.6%), indicating limited engagement with AI chatbots within this group.

Additionally, the frequency of chatbot usage reveals that nearly half of the respondents (46.0%) use AI chatbots more than five times a year for travel planning purposes. This finding suggests that AI chatbots have become a commonly used and recurring tool in travel preparation, rather than being employed sporadically. A significant proportion of respondents also reported moderate usage (34.5%), indicating sustained engagement with chatbot technology. Finally, the type of AI chatbot used indicates that ChatGPT is the most dominant platform, with 79.5% of respondents utilizing it. This dominance highlights ChatGPT's strong presence and widespread adoption among travelers, compared to other AI chatbots such as Gemini, Microsoft Copilot, and Claude.

VIF, Convergence, and Reliability Tests

Table 3 presents the common method variance value, specifically the Variance Inflation Factor (VIF), which indicates valid results as it exceeds the recommended threshold of 5 (Hair et al., 2019). To assess convergent validity, the outer loading should have a minimum value

above 0.6, and the Average Variance Extracted (AVE) should exceed 0.5 (Hair et al., 2019). As shown in Table 3, both convergent validity measures are above the recommended values. Regarding the reliability test, both Cronbach's alpha and composite reliability should exceed the threshold of 0.6 and should not exceed 0.95 (Hair et al., 2019). These values, as indicated in the table, meet the necessary criteria.

Table 3. VIF, Convergence, and Reliability Tests Result

Variable	Indicator	Outer Loading	VIF	Cronbach's Alpha	Composite Reliability	AVE
Perceived Ease of Use (PEOU)	PEOU1	0.858	1.830	0.788	0.788	0.702
	PEOU2	0.839	1.698			
	PEOU3	0.817	1.526			
Perceived Usefulness (PU)	PU1	0.838	2.038	0.855	0.856	0.698
	PU2	0.834	1.958			
	PU3	0.867	2.276			
	PU4	0.802	1.716			
Perceived Trust (PT)	PT1	0.860	1.962	0.828	0.830	0.745
	PT2	0.833	1.706			
	PT3	0.895	2.263			
Anthropomorphism (APM)	APM1	0.894	2.499	0.866	0.866	0.789
	APM2	0.909	2.809			
	APM3	0.861	1.914			
Personalization (PN)	PN1	0.823	1.930	0.862	0.862	0.707
	PN2	0.819	1.879			
	PN3	0.858	2.214			

Source: Processed data (2025)

Discriminant Validity

Table 4 presents the findings of discriminant validity results in terms of the Heterotrait-Monotrait Ratio (HTMT). According to the criteria, variables are considered valid if the HTMT value is less than 0.9, indicating a good discriminant validity (Henseler et al., 2015). However, the results indicate that several indicators have an HTMT ratio exceeding 0.9, which suggests that the HTMT criterion is not met. Consequently, the researcher conducted an additional test using the Fornell-Larcker criterion to assess discriminant validity.

Table 4. HTMT (Heterotrait-Monotrait Ratio)

Variable	APM	ATT	INTU	PEOU	PN	PT	PU
APM							
ATT	0.856						
INTU	0.868	0.983					
PEOU	0.738	0.922	0.934				
PN	0.942	0.960	0.987	0.911			
PT	0.813	0.936	0.942	0.956	0.936		
PU	0.784	0.942	0.950	1.001	0.932	0.996	

Source: Processed data (2025)

Table 5 presents the Fornell-Larcker Criterion, which consists of the square root of the Average Variance Extracted (AVE) for each construct (Fornell & Larcker, 1981). The results indicate that the value for each construct is greater than the correlations between the constructs in the model, thereby confirming that the discriminant validity test is met in this study.

Table 5. Fornell-Larcker Criterion

Variable	APM	ATT	INTU	PEOU	PN	PT	PU
APM	0.888						
ATT	0.748	0.855					
INTU	0.743	0.848	0.874				
PEOU	0.610	0.768	0.762	0.838			
PN	0.814	0.836	0.842	0.751	0.841		
PT	0.690	0.799	0.788	0.772	0.791	0.863	
PU	0.676	0.817	0.808	0.822	0.801	0.840	0.835

Source: Processed data (2025)

Hypotheses Testing

Based on the results shown in Table 6, it is confirmed that all hypothesized antecedents have a significant positive influence on Attitude (ATT). Specifically, Perceived Ease of Use (PEOU) (T = 2.136, P = 0.033), Perceived Usefulness (PU) (T = 2.459, P = 0.014), Personalization (PT) (T = 2.089, P = 0.037), Affordability and Payment Method (APM) (T = 2.558, P = 0.011), and Perceived Norms (PN) (T = 3.084, P = 0.002) were all found to have a positive and significant influence on ATT. Furthermore, this model strongly suggests that ATT itself has a substantial, positive, and significant influence on Intention to Use (INTU), as evidenced by a large T statistic of 37.384 (P = 0.000) and a notable effect size (f^2 = 2.557).

Table 6. Hypotheses Testing Result

Hypotheses	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Decision
PEOU → ATT	0.141	0.068	2.136	0.033	Accepted
PU → ATT	0.230	0.091	2.459	0.014	Accepted
PT → ATT	0.156	0.075	2.089	0.037	Accepted
APM → ATT	0.161	0.064	2.558	0.011	Accepted
PN → ATT	0.291	0.094	3.084	0.002	Accepted
ATT → INTU	0.848	0.023	37.384	0.000	Accepted

Source: Processed data (2025)

Discussion

The findings confirmed that perceived ease of use had a positive and significant effect on attitudes toward tourism planning. This result is consistent with the Technology Acceptance Model (TAM), which posits that when a system is perceived as easy to use, users are more likely to develop favorable evaluations of that system. The reduced cognitive and operational effort minimizes frustration and increases comfort during interaction (Fahlevi & Sinambela, 2024; Purwianti et al., 2024). These findings also align with existing literature, which suggests that in the context of AI chatbots, ease of use facilitates smooth and efficient interactions, fostering positive internal evaluations of the technology (Istiqomah & Alfansi, 2023; Talha et al., 2025). Thus, when users perceive AI chatbots as easy to operate, they tend to form positive attitudes, encouraging them to use chatbots for tourism purposes.

Additionally, the findings confirmed that perceived usefulness had a positive and significant effect on users' attitudes toward AI chatbots. This result aligns with prior studies within the TAM framework, which emphasize that users tend to develop positive attitudes toward systems they perceive as beneficial and capable of enhancing efficiency and outcomes (Fahlevi & Sinambela, 2024; Sujood et al., 2023). This study also supports previous research, which indicated that perceived usefulness, derived from accurate information delivery, time efficiency, and decision support, contributes to users' perceptions of the technology's value (Hoang et al., 2025; Vidarshika et al., 2025). In the context of this study, when users

experience tangible benefits from chatbot usage, they are more likely to regard the technology as valuable and worthwhile.

The findings also confirmed that perceived trust positively influences users' attitudes toward AI chatbots. This result is consistent with both TAM and trust-based technology adoption theories, which emphasize trust as a foundational factor in shaping users' evaluations of technology (Choung et al., 2023; Kang et al., 2024). Moreover, it supports findings from prior research, which suggest that perceived trust reduces uncertainty and perceived vulnerability, allowing users to feel safe and confident when interacting with the technology (Hoang et al., 2025; Kim et al., 2021; Luca Liehner et al., 2023). In this study's context, users are more likely to develop positive attitudes when they believe AI chatbots provide accurate and reliable information about tourism.

Furthermore, the results revealed that anthropomorphism positively affects users' attitudes toward AI chatbots. This finding is in strong accordance with the social response theory and human-computer interaction theory, both of which suggest that users tend to respond socially and emotionally to technologies that exhibit human-like characteristics (Liu et al., 2023). The results also reflect positive responses from prior studies, which indicate that perceived social presence strengthens emotional connections and reduces the psychological distance between users and technology, leading users to develop favorable attitudes toward AI (Kronemann et al., 2023; Li & Suh, 2022; Pillai & Sivathanu, 2020). In this context, for users who frequently rely on chatbots for tourism planning, human-like communication may reduce the perception of interacting with a rigid system, thereby fostering positive attitudes toward its use.

The findings further indicated that personalization positively influences users' attitudes toward AI chatbots. This result aligns with the TAM framework combined with the expectation–confirmation theory, which underscores the growing importance of relevance and individual fit in shaping user evaluations (Kronemann et al., 2023; Liu & Tao, 2022). Previous studies support this, stating that when users feel that technology understands and responds to their specific needs, they experience a sense of value and appreciation (de Cosmo et al., 2021; Fan et al., 2022; Park et al., 2024). In other words, when users perceive AI chatbots as attuned to their requirements, they are more likely to feel valued, which fosters positive attitudes toward using the technology for tourism planning.

The results also showed that attitude positively influences users' intention to use AI chatbots. This finding aligns with the TAM framework, which asserts that attitude is a direct antecedent of behavioral intention (Na et al., 2023; Popy & Bappy, 2020). It is consistent with previous research, which suggests that users with positive attitudes toward AI chatbots are more likely to develop strong intentions to use them, as favorable evaluations motivate continued interaction and adoption (Lopes et al., 2024; Ma et al., 2025; Wang et al., 2025). From the perspective of this study, users who perceive AI chatbots as easy to use, useful, trustworthy, human-like, and personalized are more likely to form positive attitudes, ultimately driving their intention to use chatbots for travel planning.

CONCLUSION

This study examines the factors influencing tourists' intention to use AI chatbots for tourism purposes in Indonesia, extending the Technology Acceptance Model (TAM). The findings confirm that perceived ease of use, perceived usefulness, perceived trust, anthropomorphism, and personalization all have positive and significant effects on users' attitudes toward AI chatbots. Additionally, attitude is identified as a crucial mediating variable that strongly influences the intention to use AI chatbots for travel planning. Among all antecedent variables, personalization exerts the strongest effect on attitude, indicating that tourists highly value AI chatbots that provide customized recommendations, understand personal needs, and deliver contextually relevant travel information.

From a practical standpoint, the findings suggest that AI developers and tourism stakeholders should prioritize ease of use, usefulness, trustworthiness, personalized services, and human-like interaction to increase user acceptance. Such improvements can enhance the efficiency of tourism services, strengthen digital tourism ecosystems, and ultimately support economic growth and sustainable development in the tourism industry.

This study contributes by enriching the AI adoption literature within the context of tourism, particularly from the end-user perspective in a developing country. Future research could extend the model by incorporating additional variables, such as perceived risk, perceived enjoyment, social influence, or ethical concerns, to offer a more comprehensive understanding of users' intentions to adopt AI chatbots in tourism. Furthermore, a comparative or cross-cultural approach could be employed to examine AI chatbot adoption across different countries or regions. This would allow researchers to assess the impact of cultural, technological, or institutional differences on user attitudes and intentions toward AI chatbots.

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