

# Guests' Perception of AI Adoption in the Hospitality Industry

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## Abstract

Artificial intelligence has changed the hospitality industry, which relies heavily on human interaction. This paper explores the factors influencing the adoption of artificial intelligence, focusing on technological anxiety, perceived trust, anthropomorphism, perceived intelligence, hedonistic motivation, and objection to AI use. Data were collected from 269 hotel guests through a structured online questionnaire and analyzed using multiple linear regression. The results show that technological anxiety and objection to AI use significantly and negatively affect AI adoption, while perceived trust, perceived intelligence, and hedonistic motivation have significant positive effects. Anthropomorphism was not a significant predictor. These findings underscore the importance of emotional, cognitive, and experiential factors in shaping guest attitudes toward AI services. The paper provides practical recommendations for hotel managers to enhance AI adoption by addressing psychological barriers and promoting trust, intelligence, and enjoyment in AI-based interactions.

**Keywords:** AI adoption, hospitality, anthropomorphism

**JEL classification:** M37, M31, Z33

**Paper type:** Research article

**Received:** 3 March 2025

**Accepted:** 9 June 2025

**DOI:** 10.54820/entrenova-2025-0056

**Citation:** Čuić Tanković, A., Perišić Prodan, M., & Mesaroš, M. (2025). Guests' Perception of AI Adoption in the Hospitality Industry. *ENTRENOVA - ENTERprise REsearch InNOVation*, 11(1), <https://doi.org/10.54820/entrenova-2025-0056>.

**Acknowledgments:** This paper is based on the research conducted by Marija Mesaroš as her master thesis "Percepcija korisnika o umjetnoj inteligenciji u hotelijerstvu", mentored by Ana Čuić Tanković, PhD, and defended at University of Rijeka, Faculty of Tourism and Hospitality Management in September 2024.

## Introduction

Artificial intelligence has changed many industries, including tourism and hospitality. The hospitality industry relies on human interaction, unlike other industries, where automation has led to greater efficiency. Artificial intelligence relies on large amounts of data, processing power, and algorithms. All three components have seen significant advancements in recent years, accompanied by notable trends (Bulchand-Gidumal, 2020).

The rise of service robots, automated concierge services, and AI-driven chatbots offers personalized interactions and easy service delivery (Chi et al., 2022; Mariani & Borghi, 2021). AI can analyze guest movement patterns and other data to determine staffing needs, leading to faster service delivery and optimal use of human resources. This approach ensures well-informed, prepared staff who are available even during peak seasons and busiest hours, reducing stress and improving service quality (Kong et al., 2021). Additionally, AI-powered surveillance systems can be enhanced with advanced object and facial recognition. Security cameras monitored by AI can identify potential threats and promptly alert relevant personnel for immediate action (Naik & Daptardar, 2019).

The use of AI has improved customer experience, optimized operational efficiency, and addressed labour shortages (Pillai & Sivathanu, 2020). However, consumer perceptions, trust, and comfort levels when interacting with AI-based technologies vary depending on demographics, cultural context, and technological competence (Rauf et al., 2022), and the acceptance of AI among hotel guests remains a topic of debate.

The introduction of AI in the hospitality industry raises concerns about the loss of the personal touch and customer satisfaction (Morch, 2024). There is still skepticism about whether AI can mimic human empathy and intuition, which are crucial for hospitality services (Brožek & Jakubiec, 2017). In addition, concerns about privacy, security, and ethical implications hinder the adoption of AI in this industry (Karelov et al., 2018).

Understanding the factors that influence consumer adoption of AI in the hospitality industry is critical for hotel managers, policymakers, and technology developers. Businesses must adapt their strategies to address consumer concerns, improve the user experience, and harness the potential of AI without compromising the core values of the hospitality industry.

Despite the growing body of research on AI across industries (Pillai & Sivathanu, 2020; Chi et al., 2022), there is little empirical evidence on AI use in the hospitality industry in the Croatian context. While some studies suggest that younger generations are more receptive to integrating AI into hospitality, the perspectives of older demographic groups are often overlooked, leading to a skewed understanding of AI adoption patterns (Badanjak, 2021). Most studies on AI in hospitality have been conducted in technologically advanced regions, making it difficult to generalize the findings to smaller markets such as Croatia, where digital transformation is still underway (24ContentHaus, 2023). This study is also relevant in the post-pandemic travel industry, where contactless services, AI-powered virtual assistants, and automated check-in processes have become crucial components of the modern hotel experience (Morch, 2024). This study aims to provide insights into consumer behavior, preferences, and barriers to AI adoption in Croatian hotels. By filling the existing research gap and investigating consumer attitudes towards AI in the hospitality industry, this study aims to bridge the gap between theoretical knowledge and practical applications.

## Literature review and hypotheses development

Artificial intelligence significantly improves all dimensions of hotel service quality, aligning user expectations with the perceived service experience. The application of AI technologies—from personalized recommendations to security solutions—enhances the guest experience and optimizes internal hotel operations, enabling long-term competitive advantage and customer satisfaction.

To examine AI tools currently in use, under development, or expected to be implemented soon, the hospitality industry is divided into two main areas: operations and marketing (Bulchand-Gidumal, 2020).

In operations, AI plays a significant role in assigning rooms and resources based on guest value, supporting preventive maintenance of facilities, adjusting entertainment offerings according to past behavior and projected tourist arrivals, and adapting cuisine to the tastes of current guests. AI also enhances inventory and energy management, creates environments that feel like home to guests, enables access to digital services, and aids in financial management by considering expected revenues and arrivals (Kong et al., 2021).

In marketing and commercialization, AI improves forecasting, adjusts prices and offers for existing and potential customers, enhances customer relationship management (CRM) systems, and enables personalized services through mass customization. It supports intelligent marketing strategies, develops tailored predictions, and helps implement intelligent sales assistants and support agents. AI also generates real-time offers for users based on context and content (Bulchand-Gidumal, 2020).

AI helps hotels optimize operations by reducing costs, improving customer experience, and enabling data-driven strategic decisions (Jiwani, 2024). AI technology can monitor guest presence and preferences, and automatically manage equipment operation to save energy and enhance comfort—confirmed by reports of up to 30% energy cost reduction in hotels using innovative management systems (Morch, 2024).

AI is also used for demand analysis and inventory management, helping prevent overstock and reduce waste. AI manages supply chain systems to ensure the timely procurement of quality materials at favorable prices, increasing service efficiency (Kumar & Misra, 2023). Furthermore, AI-enabled personalization increases revenue through tailored guest offers. AI can analyze guest preference data and create unique experiences, such as personalized bedding, drinks, or luxury car services (Jiwani, 2024). Dynamic pricing strategies proposed by AI based on local events and room occupancy patterns also contribute to revenue growth (Kumar & Misra, 2023). By complementing human labor, these technologies can increase the number of fulfilled orders or booked rooms, ultimately resulting in higher revenue. In restaurants, AI can streamline services by reducing the number of steps in the service sequence. For instance, AI can help waitstaff personalize service by providing information on guest preferences and recognizing guests by name using facial recognition technology (Cain et al., 2019). Potential savings for quick-service restaurants that adopt robotics are substantial, with identified opportunities in staff training and management, customer demand forecasting, process control, food quality control, quantifying corporate goals, decision-making support, and applying complex production rules (Noone & Coulter, 2012).

Beyond financial benefits, AI and robotics can enhance perceived service quality (Ivanov & Webster, 2017). Media attention and positive word of mouth generated by implementing these technologies can serve as short-term strategic advantages. Moreover, adding elements of entertainment and enjoyment to the customer

experience can create additional value. AI and robotics can also save employees' time, allowing them to focus on more creative, revenue-oriented tasks (Ivanov & Webster, 2017). Researchers recommend that hospitality educators integrate robotics and AI training into their curricula, as future jobs will require skilled workers familiar with this emerging area of the hospitality industry (Cain et al., 2019).

The empathy dimension focuses on personalized services, individual attention, and guest comfort. AI-powered tools, such as personalized marketing and targeted advertisements, are already widely used to tailor experiences based on user data—examples include YouTube video recommendations, hotel ads linked to travel bookings, and ads for nearby attractions based on a hotel reservation. AI voice assistants are handy for older adults and individuals with disabilities, allowing them to inquire about reservations, discuss amenities, check prices and offers, order room service, and more, even while on the move.

While many customers value AI-driven personalization, others express concerns over privacy and ethics (Brožek & Jakubiec, 2017). To address these issues, regulations like the EU AI Act set ethical standards for responsible AI use in hospitality (European Union, 2020). Research indicates that although AI enhances efficiency in hospitality, trust and emotional engagement remain key to its acceptance (Brozek & Jakubiec, 2017). Concerns persist that AI could undermine the industry's human-centred approach. Technology anxiety is defined as discomfort or fear when engaging with advanced technology, which negatively impacts AI adoption because anxious users often avoid AI-powered services (Pillai & Sivathanu, 2020). Individuals who feel overwhelmed by AI are more likely to see it as invasive rather than supportive (Chi et al., 2022). As AI systems gain autonomy, fears of losing control grow, fueling skepticism and resistance to their integration (Morch, 2024).

- *H1: There is a statistically significant and negative relationship between technological anxiety and AI Adoption.*

Understanding guest perception is crucial for introducing AI in the hospitality industry. Research has shown that customers' willingness to use AI-based services is influenced by perceived usefulness, ease of use, and trust (Pillai & Sivathanu, 2020). Trust is one of the most significant barriers to adopting AI in the hospitality industry. Trust in AI is influenced by the perceived reliability, accuracy, and transparency of AI decisions (Chi et al., 2022). Trust is a fundamental factor for accepting AI-driven services in the hospitality industry. Studies suggest that perceived trustworthiness significantly influences guests' willingness to interact with AI-powered systems (Chi et al., 2022). To foster trust, hospitality organizations should clearly communicate their AI capabilities, ethical guidelines, and robust safety measures (Morch, 2024). Research shows that guests are more likely to accept AI if they understand how it works and believe it is acting in their best interests (Rasheed et al., 2023). However, AI systems' lack of emotional intelligence and the potential for algorithmic bias raise concerns among consumers (Morch, 2024).

- *H2: There is a statistically significant and positive relationship between perceived trust and AI adoption.*

AI-driven customer service tools, such as virtual assistants and chatbots, are growing in popularity because they can provide real-time answers and personalized recommendations (Chi et al., 2022). However, concerns about privacy, security, and AI's ability to exhibit human-like empathy continue to pose a challenge to widespread adoption (Karelov et al., 2018). Cultural differences also play a crucial role in the acceptance of AI. Studies show that customers from technologically advanced

regions are more willing to interact with AI than those from regions with limited AI exposure (Badanjak, 2021). Another important factor influencing AI acceptance is anthropomorphism, i.e., the extent to which users perceive AI systems as human-like (Rasheed et al., 2023). Research suggests that users develop trust and a sense of familiarity when AI services have human traits, making them more willing to engage with AI-driven services (Mariani & Borghi, 2021). However, excessive anthropomorphism can lead to the uncanny valley effect, where overly human-like AI interactions cause discomfort (Brozek & Jakubiec, 2017).

- *H3: There is a statistically significant and positive relationship between anthropomorphism and AI adoption.*

Another major challenge is the impact of AI on employment in the hospitality industry. While AI can optimize operations, reduce costs, and counteract labor shortages, concerns about job displacement remain (Pillai & Sivathanu, 2020). Furthermore, the ability of AI to replace human empathy remains controversial (Brozek & Jakubiec, 2017). While AI-driven assistants can process requests efficiently, they lack the nuanced understanding of human emotions that define high-quality service in the hospitality industry (Morch, 2024). Studies suggest that AI should complement rather than replace human interactions in customer service (Chi et al., 2022). Hotel managers must balance integrating AI and maintaining employment opportunities to ensure a smooth transition to AI-enabled services in the hospitality industry (Mariani & Borghi, 2021). On the other hand, perceived intelligence refers to how customers view AI systems as competent for performing complex tasks. Research suggests that customers are more likely to adopt AI-powered services if they perceive AI as highly intelligent and capable of delivering accurate, efficient services (Mariani & Borghi, 2021).

- *H4: There is a statistically significant and positive relationship between perceived intelligence and AI adoption.*

Hedonistic motivation refers to users' joy and pleasure from interacting with AI. Studies suggest that AI solutions that are designed to be engaging and entertaining can promote customer adoption (Rasheed et al., 2023). Research by Alanazi et al. (2025) shows that AI applications that include gamification, personalized recommendations, and interactive experiences significantly increase customer satisfaction and encourage frequent use. In the hospitality industry, AI-driven concierge services and virtual assistants that deliver enjoyable, seamless experiences increase customer loyalty (Tussyadiah, 2020). Therefore, companies looking to deploy AI in the hospitality industry should focus on increasing the hedonistic appeal of AI-driven interactions to maximize guest adoption and satisfaction.

- *H5: There is a statistically significant and positive relationship between hedonistic motivation and AI adoption.*

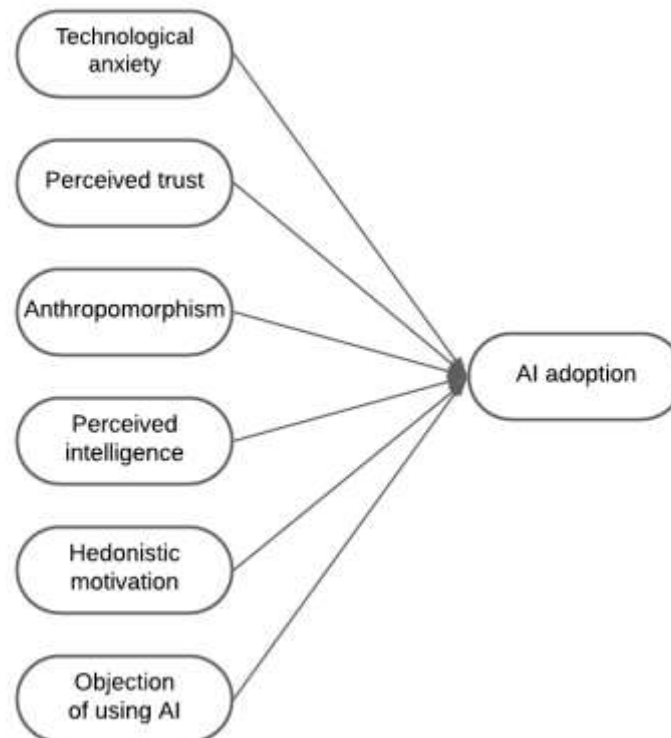
Resistance to adopting AI may stem from scepticism about its reliability, lack of human warmth, and ethical concerns. Studies suggest that guests who reject AI perceive it as threatening workplace safety and human interaction, resulting in lower adoption rates (Pillai & Sivathanu, 2020). Research by Ivanov and Webster (2019) shows that customers often express concerns about depersonalization and the loss of actual human service in AI-driven hospitality businesses. These findings suggest that customer concerns can be mitigated through transparency, ethical AI practices, and hybrid service models that combine AI with human assistance, thereby encouraging wider adoption of AI in the hospitality industry. Hotels should gradually introduce AI solutions

alongside human staff to maintain a balanced approach that preserves the essential human element of hospitality.

- *H6: There is a statistically significant and negative relationship between objection to using AI devices and AI adoption.*

To complement these hypotheses, a conceptual model is proposed in Figure 1.

Figure 1  
Conceptual model



Source: Authors' work

## Methodology

To test the formulated hypotheses, an empirical study was conducted using survey methodology. A self-administered, structured questionnaire was used as the measurement instrument, with the constructs and variables based on the relevant literature. The questionnaire is divided into four groups and follows the funnel principle. Using a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree), participants rated their agreement with the questionnaire items. Technology anxiety, trust, perceived intelligence, and AI adoption were adopted from Pillai & Sivathanu (2020), while anthropomorphism, hedonistic motivation, and objection to using AI devices were adopted from Chi et al. (2022).

The survey ran from 1 August to 25 August 2024 via an online survey distributed via email and social media, targeting people who had used hotel services in the previous year. The questionnaires were randomly distributed to different platforms to capture a wide range of perspectives. The sample was drawn using a non-random method. After correcting for inaccuracies and missing data, 269 correctly completed questionnaires were deemed suitable for subsequent analysis. The analysis was performed with IBM

SPSS Statistics for Windows, version 25, using descriptive statistics and linear regression analysis.

Of the 269 valid questionnaires, 52% of respondents were female, 40.1% were male, and 7.8% preferred not to indicate their gender. The majority of respondents were younger, with 30.1% aged 18-25 and 24.2% aged 26-35. Fewer respondents belonged to the age groups "36-45" (19%), "46-55" (19%), "56-65" (4.5%), and "over 65" (3.3%). In terms of education, most respondents had a secondary school degree (38.7%) or higher vocational education (33.5%), followed by university degree (24.9%), postgraduate education (1.5%), and primary school education (1.5%). Accordingly, they were predominantly full-time employees (59.9%) and students (19.7%). Only a few respondents worked part-time (9.7%), were unemployed (4.1%), or were retired (6.7%). The respondents' income distribution varied: 7.8% earned up to 200 EUR per month, 13.8% earned between 201 and 450 EUR, and 18.2% earned between 451 and 800 EUR. The highest proportion of respondents (27.1%) reported a monthly income of 801-1300 EUR, followed by 24.5% earning between 1301 and 2000 EUR. Additionally, 5.2% reported earnings between 2001 and 2600 EUR, while only 3.3% earned above 2601 EUR.

## Results

To describe the frequency distributions of the investigated variables, descriptive statistical methods were used. The means of numerical variables were expressed as the arithmetic mean, standard deviation, and mode. The internal consistency of the scale was measured by Cronbach's alpha values (Table 1). To test the predictors of intention to accept AI devices in hospitality, a multiple linear regression analysis was conducted.

Table 1  
Results of the descriptive statistical analysis

Construct	Mean	SD	MODE	Cronbach Alpha
<b>Technological anxiety</b>	<b>2,542</b>	<b>0,970</b>		<b>0,883</b>
I might somehow face a problem when I use technology such as AI devices in a hotel setting	3,223	1,179	3	
I am unable to keep pace with new technological advances	2,472	1,235	2	
Using technology such as AI devices in a hotel setting makes me anxious	2,375	1,265	1	
Technology-related words are difficult to understand	2,428	1,275	1	
I find it difficult to understand technology-related matters	2,401	1,204	2	
I escape from the utilization of AI devices as they are not very familiar to me	2,450	1,334	1	
I am apprehensive about using technology as I feel that I make mistakes while using technology that I cannot rectify	2,450	1,356	1	
<b>Perceived trust</b>	<b>3,299</b>	<b>1,129</b>		<b>0,947</b>
I feel that the information provided by AI devices in hospitality is honest and authentic	3,156	1,125	3	
I feel that AI devices in hospitality have clarity of services provided and frank opinions, which are reliable	3,264	1,191	3	

Construct	Mean	SD	MODE	Cronbach Alpha
I feel that AI devices in hospitality for travel planning are trustworthy	3,342	1,279	3	
I feel that AI devices for hospitality have the necessary ability to provide travel plan service	3,435	1,264	4	
<b>Anthropomorphism</b>	<b>2,099</b>	<b>1,074</b>		<b>0,905</b>
AI devices have a mind of their own	2,602	1,377	1	
AI devices have consciousness	1,985	1,194	1	
AI devices have their own free will	1,989	1,186	1	
AI devices will experience emotions	1,822	1,095	1	
<b>Perceived intelligence</b>	<b>3,180</b>	<b>1,207</b>		<b>0,958</b>
I feel that AI devices for hospitality are competent	3,335	1,222	3	
I feel that AI devices for hospitality are knowledgeable	3,245	1,269	3	
I feel that AI devices for hospitality are responsible	3,074	1,314	3	
I feel that AI devices for hospitality are intelligent	3,230	1,365	3	
I feel that AI devices for hospitality are sensible	3,019	1,345	3	
<b>Hedonic motivation</b>	<b>3,454</b>	<b>1,274</b>		<b>0,966</b>
Interacting with AI devices is fun	3,428	1,327	4	
Interacting with AI devices is entertaining	3,539	1,353	5	
Interacting with AI devices is enjoyable	3,405	1,311	4	
The actual process of interacting would be pleasant	3,446	1,361	5	
<b>Objection to using AI devices</b>	<b>3,627</b>	<b>1,085</b>		<b>0,906</b>
I prefer human contact in service transactions	3,572	1,215	3	
People need emotional exchange during service transactions	3,528	1,167	3	
Interaction with AI devices lacks social contact	3,781	1,166	5	
<b>AI adoption</b>	<b>3,489</b>	<b>1,352</b>		<b>0,961</b>
I plan to use AI devices for hospitality in the future for travel scheduling	3,491	1,384	5	
I intend to use AI devices in hospitality for future travel plans and book my travel plan	3,420	1,406	5	
There is a possibility that I will suggest to my friends to use AI devices in hospitality	3,558	1,423	5	

Source: Author's work

The Cronbach's alpha values for the scales used in this study ranged from 0.883 to 0.966, indicating excellent internal consistency across all scales. In particular, scores were consistently above the generally accepted threshold of 0.7, with several scales having reliability coefficients above 0.9. These high alpha values indicate that the items within each scale are highly correlated and measure the same underlying construct with high consistency. Overall, the results provide strong evidence for the reliability of the measurement instruments used in this study.

A multiple linear regression analysis was conducted to identify the predictors of the intention to accept AI devices in the hospitality industry (Table 2 and 3). The regression model matrix was tested for normality, linearity, multicollinearity, homoscedasticity, residual independence and atypical points, all of which confirmed that the assumptions required for linear regression analysis were met.

Table 2  
Regression analysis

Indicators	
Multiple correlation coefficient R	0.933
Coefficient of determination R <sup>2</sup>	0.871
Adjusted R <sup>2</sup>	0.869
Standard error	0.491
F ratio	295.93
Significance	1.35 x 10

Source: Author's work

Table 3  
Regression analysis – follow-up

	B	Std err	t	p	Confidence interval
Constant	1.8122	0.259	6.998	0.000	1.302 2.322
Technological anxiety	-0.2202	0.044	-5.048	0.000	-0.306 -0.134
Perceived trust	0.2606	0.060	4.381	0.000	0.143 0.378
Anthropomorphism	-0.0585	0.033	-1.788	0.075	-0.123 0.006
Perceived intelligence	0.1915	0.056	3.391	0.001	0.080 0.303
Hedonistic motivation	0.4326	0.054	7.961	0.000	0.326 0.540
Objection of using AI	-0.1664	0.034	-4.837	0.000	-0.234 -0.099

Note: dependent variable – AI adoption; B – unstandardized coefficient; std err – standard error of the coefficient; t – t-statistic; p – p-value; 95% confidence interval

Source: Author's work

The statistically significant F-ratio ( $F = 295.93$ ;  $p < 0.001$ ) indicates that the combination of independent variables in the model statistically significantly predicts the dependent variable. Specifically, the combination of technological anxiety, perceived trust, anthropomorphism, perceived intelligence, hedonistic motivation, and opposition to AI devices effectively explains AI adoption. The relationship between the predictors and AI adoption is very strong ( $R = 0.933$ ). Furthermore, the six independent constructs explain approximately 87.1% of the variance in the dependent variable ( $R^2 = 0.871$ ; Adjusted  $R^2 = 0.868$ ).

The regression analysis results support five of the six proposed hypotheses. H1, which proposed a negative relationship between technological anxiety and AI adoption, is supported, as the construct shows a significant adverse effect ( $\beta = -0.220$ ;  $p < 0.001$ ). H2, suggesting a positive relationship between perceived trust and AI adoption, is also supported ( $\beta = 0.261$ ;  $p < 0.001$ ), as is H4, which predicts a positive influence of perceived intelligence ( $\beta = 0.192$ ;  $p < 0.01$ ). Hypothesis 5, proposing that hedonistic motivation positively affects AI adoption, receives the strongest support ( $\beta = 0.433$ ;  $p < 0.001$ ), making it the most influential variable in the model. H6, which expected a negative relationship between objection to using AI devices and AI adoption, is likewise supported ( $\beta = -0.166$ ;  $p < 0.001$ ). However, H3, hypothesizing a positive association between anthropomorphism and AI adoption, is not supported, as the relationship is negative and statistically non-significant ( $\beta = -0.059$ ;  $p = 0.075$ ).

It can be concluded that there is a statistically significant relationship between the proposed psychological and motivational constructs and AI adoption, thus supporting hypotheses H1, H2, H4, H5, and H6, while H3 is not supported.

## Discussion and conclusion

This study improves understanding of how trust, perceived intelligence, technology anxiety, and hedonistic motivation influence users' perceptions and behavioural intentions regarding AI adoption in the hospitality industry. The results provide important theoretical and practical contributions. The study extends the model of technology acceptance by emphasising the importance of affective and cognitive factors in AI adoption, which have not yet been extensively empirically investigated. It emphasises the role of perceived trust and perceived intelligence in users' willingness to interact with AI-driven hotel services. It highlights their influence on perceived ease of use and adoption intention.

The results align with previous studies that emphasise the role of trust in technology adoption (Pillai & Sivathanu, 2020). Trust in AI devices positively influences the willingness to adopt AI-based services in the hospitality industry, consistent with previous research on digital trust (Chung et al., 2015). The significant role of perceived intelligence is also consistent with studies suggesting that users are more likely to accept AI services if they perceive them as competent and capable (Chi et al., 2022). Hedonistic motivation was found to be the strongest predictor of AI adoption, confirming Duffett's (2020) findings on the use of technology for fun. Users who find AI appealing and entertaining are more likely to adopt it. Conversely, technology anxiety negatively influences the acceptance of AI. This confirms that anxiety and uncertainty reduce user engagement with AI. The objection to using AI devices significantly hinders adoption, suggesting that strategies are needed to reduce scepticism and increase consumer trust. This finding is consistent with the existing literature, which indicates that negative perceptions of AI autonomy and decision-making prevent widespread adoption (Ayeh, 2015).

The results can be placed in the context of dual-processing theories, which explain how individuals evaluate technology through either systematic, analytical processing (central processing) or superficial cues (peripheral processing). The results show that users with higher levels of trust and higher perceptions of AI intelligence are more likely to accept AI services, suggesting that these constructs serve as heuristic cues in decision-making. Technology anxiety, on the other hand, acts as a cognitive barrier that inhibits adoption. This is consistent with previous studies indicating that negative emotions and uncertainty reduce engagement with AI.

Social Judgement Theory offers another possible interpretation and shows that previous beliefs and attitudes influence the acceptance of AI. People who are sceptical about AI or concerned about their privacy and control are more likely to reject AI technologies. Conversely, hedonistic motivation has a positive effect on adoption, as it emphasises the entertainment and experiential value of AI and serves as a strong predictor of willingness to use AI-driven hotel services. This emphasises how the emotional connection to AI can promote trust and increase the acceptance of AI-based service innovations.

The study offers important insights for the hospitality industry. Firstly, customer trust can be boosted by reducing the fear of technology through educational initiatives, transparent AI features, and user-friendly interfaces. Secondly, fostering trust through robust safety measures, ethical AI policies, and clear communication of AI capabilities can further improve adoption. Thirdly, improving AI's perceived intelligence by integrating adaptive learning algorithms and providing realistic, human-like interactions can increase the adoption of AI services. Finally, leveraging hedonistic motivation by making AI interactions more engaging and personalised can increase user satisfaction and long-term adoption.

Although the findings make an important contribution to AI research in the hospitality industry, the limitations should be recognised. The study sample is geographically limited, which restricts its generalisability to other cultural and economic contexts. Future research should examine perceptions of AI in different regions and demographic groups to better understand cultural differences in AI adoption. In addition, longitudinal studies examining the evolution of attitudes towards AI over time could provide deeper insights into long-term adoption patterns. Future research should also investigate other influential variables such as perceived ease of use, social influence, and previous AI experience to broaden the theoretical framework of AI adoption in the hospitality industry. Mixed-methods approaches that combine qualitative findings with quantitative results would provide a more comprehensive understanding of AI adoption behaviour.

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