

“Customer perceptions of smart human–AI service experiences and revisit intention: The mediating effects of pleasure, arousal, and dominance and the moderating role of digital literacy”

AUTHORS	Abdulaziz Abdullah Obaid  Ahmed Dheyauldeen Salahaldin 
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Abdulaziz Abdullah Obaid,
Ms., Department of Business
Administration, University of Anbar,
Iraq.

Ahmed Dheyauldeen Salahaldin,
Dr., College of Administration and
Economics, Department of Business
Administration, University of Anbar,
Iraq. (Corresponding author)



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Abdulaziz Abdullah Obaid (Iraq), Ahmed Dheyauldeen Salahaldin (Iraq)

CUSTOMER PERCEPTIONS OF SMART HUMAN-AI SERVICE EXPERIENCES AND REVISIT INTENTION: THE MEDIATING EFFECTS OF PLEASURE, AROUSAL, AND DOMINANCE AND THE MODERATING ROLE OF DIGITAL LITERACY

Abstract

Customer perceptions of smart human-AI service experiences are important for understanding how AI-enabled hospitality services influence guests' behavioral responses. As hotels integrate artificial intelligence into frontline service encounters, understanding how these perceptions shape revisit intention is critical in hospitality marketing. This study examines how customer perceptions of smart human-AI service experiences affect revisit intention, with pleasure, arousal, and dominance serving as mediators within the Pleasure-Arousal-Dominance (PAD) framework. It also investigates the moderating role of digital literacy. Data were collected from guests at four- and five-star hotels in Iraq that offer AI-enabled service experiences. A sampling approach yielded 927 responses, which were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). Results show that customer perceptions of smart human-AI service experiences significantly enhance pleasure ($\beta = 0.513$, $p < 0.001$), arousal ($\beta = 0.529$, $p < 0.001$), and dominance ($\beta = 0.412$, $p < 0.001$), but have no significant direct effect on revisit intention. Mediation analysis indicates that pleasure and dominance significantly mediate this relationship, whereas the indirect effect through arousal is not significant. Digital literacy exhibits differentiated moderating effects by strengthening the pleasure-revisit intention relationship, showing no significant effect on the arousal-revisit intention relationship, and weakening the dominance-revisit intention relationship. This study contributes to hospitality marketing by demonstrating that smart human-AI service experiences influence revisit intention primarily through emotional responses rather than directly. The findings show that digital literacy varies across emotional dimensions, offering practical guidance for designing customer-centered, AI-enabled hospitality services more effectively.

Keywords

smart human-AI, pleasure, arousal, dominance, revisit intention, digital literacy

JEL Classification

O33, M15, M12, M31, D83

INTRODUCTION

Over the past few years, the hospitality industry has rapidly transitioned toward AI-enabled service environments, in which artificial intelligence has become an essential component of service delivery. AI applications, including conversational agents, intelligent recommendation systems, and predictive analytics, have improved service efficiency, personalization, responsiveness, and operational effectiveness. However, hospitality remains a high-contact industry in which guests evaluate not only technological performance but also the overall experience created through interactions between AI technologies and

frontline employees (Hwang et al., 2026; Liu et al., 2026). Accordingly, customers develop perceptions of smart human–AI service experiences through their evaluations of AI-supported service encounters, including service clarity, responsiveness, reliability, accuracy, and overall effectiveness. These perceptions may subsequently influence emotional responses and revisit intention. Despite rapid advances in AI applications, AI-enabled hospitality services continue to face challenges related to trust, emotional understanding, personalization, and adaptation to cultural contexts, particularly in emerging markets where technological efficiency must be balanced with meaningful human interaction (Syah & Binesh, 2025; Lee et al., 2025). Although previous studies have extensively examined AI adoption, service quality, operational performance, and customer satisfaction (Wu et al., 2025; Tan et al., 2024), important gaps remain. Existing research has paid limited attention to how customers' integrated perceptions of smart human–AI service experiences influence revisit intention through emotional mechanisms within the Pleasure–Arousal–Dominance (PAD) framework, and to the potential moderating role of digital literacy in shaping customers' evaluations of AI-supported service encounters (Jiang & Garrod, 2025; Hussein & Salahaldin, 2025). To address these gaps, this study develops an integrated customer-centered framework that examines how customers' perceptions of smart human–AI service experiences influence revisit intention through the emotional dimensions of the PAD framework while investigating the moderating role of digital literacy. The study contributes to the hospitality marketing literature in three ways. First, it advances understanding of how customers evaluate smart human–AI service experiences by focusing on their perceptions of AI-supported service encounters. Second, it extends the application of the PAD framework by examining the distinct roles of pleasure, arousal, and dominance in the relationship between customers' perceptions of smart human–AI service experiences and revisit intention. Third, it provides practical insights for hotel managers seeking to design customer-centered AI-enabled service experiences that enhance positive guest experiences and encourage revisit intention, particularly within emerging hospitality markets such as Iraq.

1. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Over the past few years, the hospitality industry has undergone a profound transformation toward AI-enabled service environments, in which artificial intelligence has become an integral part of customer-facing service delivery rather than merely an operational support technology. Hotels increasingly employ conversational agents, intelligent recommendation systems, predictive analytics, and automated decision-support tools to improve service efficiency, responsiveness, and personalization. Nevertheless, despite these technological developments, guests rarely evaluate artificial intelligence in isolation. Instead, they assess the overall service encounter resulting from the interaction between frontline employees and AI-supported technologies during service delivery (Yan et al., 2025; Maindola et al., 2026; Wang et al., 2025). Recent hospitality literature increasingly argues that the value of artificial intelligence lies not only in its computational capabilities but

also in the quality of its integration with frontline employees during customer interactions (Liu et al., 2026). Although AI enhances speed, consistency, analytical accuracy, and information processing, employees continue to contribute uniquely human capabilities, including emotional intelligence, empathy, contextual understanding, cultural awareness, adaptive communication, and personalized problem solving (Castaneda et al., 2026). Consequently, guests experience hotel services as integrated human–AI encounters in which technological capabilities and human interaction jointly determine the overall quality of the service experience. Rather than evaluating organizational human resource practices, guests evaluate how effectively employees use intelligent technologies to provide clear information, accurate recommendations, responsive assistance, reliable solutions, and personalized service throughout the service encounter (Wu et al., 2025; Tan et al., 2024).

Within this perspective, recent studies suggest that contemporary hospitality service encounters should be conceptualized as smart human–AI service experiences, reflecting customer perceptions

of the effectiveness with which frontline employees and intelligent technologies jointly deliver hotel services. These experiences emerge when employees successfully combine human capabilities, including empathy, communication, flexibility, and contextual interpretation, with AI capabilities such as analytical accuracy, rapid information processing, predictive intelligence, and operational consistency (Anggari, 2024; Pericleous et al., 2025). Consequently, guests evaluate the service encounter through perceptions of clarity, responsiveness, reliability, service accuracy, and interaction quality rather than through assessments of employees or AI systems independently. Accordingly, smart human–AI service experiences represent customer-centered evaluations of AI-supported service delivery that reflect how successfully human and technological resources are integrated throughout the hospitality experience (Kakada & Shafi, 2023; Seočanac, 2025; Jiang et al., 2025). From the perspective of environmental psychology, these AI-supported service experiences function as environmental stimuli capable of influencing guests' internal emotional states. Recent hospitality research increasingly recognizes that technology-enhanced service encounters affect customers not only through functional performance but also through their psychological and emotional consequences (Kumawat et al., 2025). This perspective is strongly supported by the Pleasure–Arousal–Dominance (PAD) framework, which proposes that environmental stimuli influence individuals by generating emotional responses that subsequently shape behavioral outcomes (Mehrabian & Russell, 1974). Within AI-enabled hospitality environments, effective human–AI service experiences have been shown to enhance pleasure by creating feelings of comfort, reassurance, and satisfaction; stimulate arousal by increasing attention, curiosity, and cognitive engagement; and strengthen dominance by enhancing guests' perceptions of confidence, autonomy, and control throughout technology-supported service interactions (Liu et al., 2026). Importantly, these emotional responses are generated not by intelligent technologies alone but by the manner in which employees employ these technologies to clarify information, personalize recommendations, resolve customer concerns, and facilitate smooth service experiences. The hospitality literature consistently demonstrates that these

emotional responses play a central role in shaping customer behavior. Experience-based service environments depend heavily upon guests' emotional evaluations because customers frequently judge hospitality experiences through affective reactions rather than purely rational assessments (Hsu et al., 2023; Souki et al., 2023). Within this context, the PAD model provides an established theoretical framework for explaining how emotional experiences arising during service encounters influence subsequent behavioral intentions (Mehrabian & Russell, 1974). Rather than remaining temporary psychological reactions, pleasure, arousal, and dominance become important mechanisms through which service experiences influence future customer decisions, including revisit intention (Bui & Quyen, 2025). Empirical evidence indicates that pleasure promotes favorable evaluations of service experiences and strengthens emotional attachment toward hospitality providers (Jiang & Garrod, 2025; Sharif et al., 2023). Likewise, arousal increases cognitive engagement, enhances experiential memory, and improves subsequent recall of positive service experiences (Yu et al., 2024). Dominance represents customers' perceptions of control and confidence during service encounters and has consistently been associated with reduced uncertainty, increased trust, greater psychological comfort, and stronger intentions to revisit service providers (Ji et al., 2025; Xu et al., 2025). Collectively, these findings suggest that positive emotional experiences constitute a central explanatory mechanism through which hospitality service encounters translate into customer loyalty, favorable evaluations, and revisit intention (Soliman et al., 2026).

Building on this perspective, recent hospitality research increasingly argues that AI-supported service experiences influence revisit intention primarily through emotional mechanisms rather than direct effects alone (Zhang et al., 2026; Tran et al., 2025). Human–AI service experiences serve as environmental stimuli that generate emotional states, including pleasure, arousal, and dominance, which subsequently mediate the relationship between service interaction quality and future behavioral intentions. Positive emotional experiences encourage favorable evaluations of service encounters, strengthen customers' psychological attachment to hospitality providers, and increase

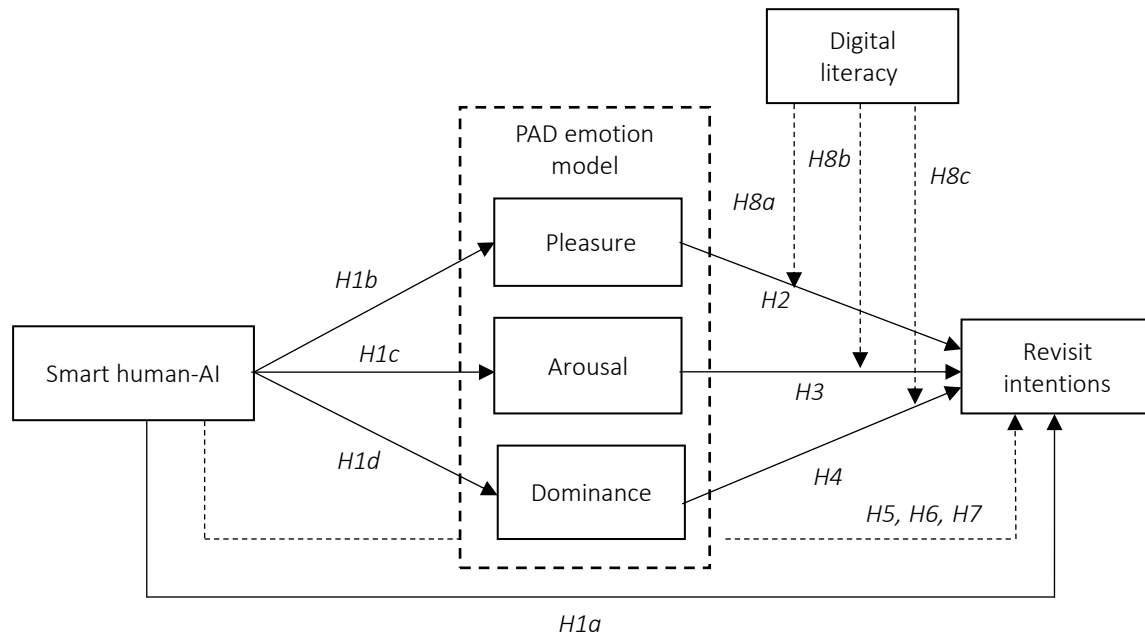


Figure 1. Research conceptual model

their willingness to maintain future relationships with the service organization (Ashfaq et al., 2025). Accordingly, the ability of AI-enhanced service encounters to create balanced emotional experiences is a key mechanism through which guests translate perceptions of high-quality human–AI interactions into revisit intention.

However, contemporary research also suggests that these emotional processes vary substantially across individuals because customers differ in their ability to understand, interpret, and interact with intelligent technologies. One of the most influential individual characteristics in AI-enabled service environments is digital literacy. Beyond basic technological competence, digital literacy reflects individuals' ability to evaluate digital information critically, interpret algorithmic recommendations appropriately, understand intelligent systems, and effectively engage with AI-supported service technologies (Makhafola et al., 2025; Hasanein et al., 2026). Consequently, digital literacy serves as an important cognitive interpretive capability that shapes how guests process both informational and emotional stimuli during AI-supported service encounters. Guests with higher levels of digital literacy are generally better at interpreting AI-assisted interactions accurately, integrating emotional experiences into coherent cognitive evaluations, and translating positive emotional re-

sponses into stronger behavioral intentions (Yang et al., 2025). Conversely, limited digital literacy may increase uncertainty, reduce confidence during technology-supported interactions, weaken perceived control, and ultimately diminish the influence of emotional responses on revisit intention. Despite the growing body of research examining artificial intelligence in hospitality, several important theoretical gaps remain. Existing studies have extensively investigated the technological capabilities of AI systems and their operational benefits, while comparatively little attention has been devoted to understanding how guests perceive integrated human–AI service experiences during actual service encounters. Furthermore, although emotional responses have frequently been recognized as important consequences of AI-supported interactions, empirical evidence explaining how pleasure, arousal, and dominance jointly mediate the relationship between perceived human–AI service experiences and revisit intention remains limited. Likewise, relatively little research has examined how individual differences in digital literacy alter these emotional mechanisms within hospitality settings.

Addressing these limitations, the present study develops and empirically tests a conceptual framework proposing that guests' perceptions of smart human–AI service experiences positively influ-

ence revisit intention both directly and indirectly through pleasure, arousal, and dominance, while simultaneously examining the moderating role of digital literacy. Based on this theoretical framework, the following hypotheses are proposed (Figure 1).

- H1a: Smart human–AI is positively related to guests’ intention to revisit.*
- H1b: Smart human–AI is positively related to guests’ pleasure.*
- H1c: Smart human–AI is positively related to guests’ arousal.*
- H1d: Smart human–AI is positively related to guests’ dominance.*
- H2: Guests’ pleasure is positively related to revisit intention.*
- H3: Guests’ arousal is positively related to revisit intention.*
- H4: Guests’ dominance is positively related to revisit intention.*
- H5: Pleasure mediates the relationship between smart human–AI and revisit intention.*
- H6: Arousal mediates between smart human–AI and revisit intention.*
- H7: Dominance mediates between smart human–AI and revisit intention.*
- H8a: Digital literacy moderates between pleasure and revisit intention.*
- H8b: Digital literacy moderates between arousal and revisit intention.*
- H8c: Digital literacy moderates between dominance and revisit intention.*

2. METHOD

The target population comprised guests at up-scale hotels in Iraq who had direct interactions with AI-supported services, including biometric

recognition systems, smart assistants, predictive analytics, and automated check-in and check-out systems. To ensure sampling accuracy, a three-month field reconnaissance phase was conducted, involving visits to 127 hotels. This phase aimed to verify the implementation of AI technologies, assess technological maturity, and identify suitable data collection sites. As a result, a validated sampling frame of 71 hotels actively using AI-supported services was established. Because these technologies were typically implemented as integrated service solutions rather than independent applications, the present study focused on guests’ overall perceptions of AI-supported service experiences rather than evaluating the effects of individual AI technologies. Data collection took place between September and November 2025. A total of 1,200 questionnaires were distributed using a structured sampling approach. Of these, 977 questionnaires were returned, representing a response rate of 81.4%. Following data screening, 22 incomplete responses, 9 questionnaires that failed the attention checks, and 19 ineligible cases were excluded, resulting in a final sample of 927 valid responses. This sample size exceeds the minimum requirements for PLS-SEM analysis and provides sufficient statistical power to detect meaningful relationships among the study variables (Hair et al., 2019). Despite challenges during data collection, including limited cooperation from some hotel administrations, the relatively recent adoption of digital technologies in Iraqi hotels, and geographical dispersion, these issues were effectively managed. The selected hotels were chosen for their geographic distribution and operational diversity across Iraq (north, west, and central regions), ensuring adequate representation of different hospitality environments. The sample included both international and local hotels, many of which were among the early adopters of AI-enabled service systems and interactive digital platforms. The diversity of hotel locations and customer profiles enhances the representativeness of the sample and captures a broad range of customer experiences within the Iraqi hospitality context. To improve targeting accuracy, preliminary semi-structured interviews were conducted with 12 hotel managers, IT staff, and customer service representatives (three participants from each of four hotels). Direct communication was also established with hotel operations and guest service departments.

These interviews refined the screening questions to ensure that respondents had actual experience with AI-enabled services and resulted in minor modifications to the questionnaire to better reflect different stages of the guest journey (pre-stay, during stay, and post-stay). Furthermore, the exploratory phase identified several context-specific issues, including data privacy, information security, system reliability, and digital service quality, thereby strengthening the face validity of the research instrument. Data were collected using an online questionnaire administered through Typeform and QR codes distributed within hotel premises. The survey required approximately 12–15 minutes to complete and consisted of demographic questions and measures of the study constructs. Smart human–AI service experiences were measured using a multidimensional scale adapted from Al-Faouri et al. (2024). Because the original scale was designed to assess organizational Smart HRM practices, the measurement items were substantially adapted and reworded to capture customers' evaluations of AI-supported service encounters in the hospitality context. To ensure content validity, the adapted items were reviewed by three academic experts and subsequently evaluated through a pilot study involving 30 hotel guests, which confirmed item clarity, contextual suitability, and comprehensibility before the main survey. Emotional responses were assessed using the Pleasure–Arousal–Dominance (PAD) scale adapted from Liu and Jang (2009). Revisit intention was measured using the scale developed by Nazarian et al. (2024), while digital literacy was assessed using the scale proposed by Van Deursen et al. (2010). All measurement items employed a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The questionnaire was prepared in both Arabic and English using the back-translation procedure to ensure linguistic equivalence (see Appendix 1). Table 1 presents the demographic characteristics of the final sample ($N = 927$). Gender distribution was relatively balanced, with 51.1% male ($n = 474$) and 48.9% female ($n = 453$). Respondents were drawn from major Iraqi cities, including Baghdad (30.2%, $n = 280$), Erbil (25.6%, $n = 237$), Basra (23.8%, $n = 221$), and Al-Anbar (20.4%, $n = 189$), indicating broad geographical coverage. Regarding hotel category, 54.3% stayed in five-star hotels ($n = 503$), whereas 45.7% stayed in four-star hotels ($n = 424$). Leisure

travel represented 38.7% of the sample ($n = 359$), business travel 34.5% ($n = 320$), and religious or social visits 26.8% ($n = 248$). The largest age group was 25–34 years (33.9%, $n = 314$), followed by 35–44 years (27.4%, $n = 254$), 18–24 years (22.1%, $n = 205$), and 45 years and above (16.6%, $n = 154$). Overall, the sample demonstrates adequate demographic and contextual diversity, supporting the robustness and generalizability of the empirical analysis within the Iraqi hospitality sector.

Table 1. Demographic characteristics of the respondents

Characteristics	n	Percent
Gender		
Male	474	51.1
Female	453	48.9
Age		
18–24	205	22.1
25–34	314	33.9
35–44	254	27.4
45 and above	154	16.6
Location		
Baghdad	280	30.2
Al-Anbar	189	20.4
Basra	221	23.8
Erbil	237	25.6
Hotel category		
Five-star hotels	503	54.3
Four-star hotels	424	45.7
Purpose of stay		
Leisure stay	359	38.7
Business stay	320	34.5
Religious or social visits	248	26.8

3. RESULTS

To ensure the robustness of the measurement model, the reliability and validity of all constructs were assessed using Composite Reliability (CR), Cronbach's Alpha, and Average Variance Extracted (AVE) (see Table 2). Consistent with established methodological guidelines (Hair et al., 2019; Fornell & Larcker, 1981), CR and Cronbach's Alpha values of 0.70 or higher indicate satisfactory internal consistency, while AVE values of 0.50 or above confirm adequate convergent validity. Standardized outer loadings of 0.70 or higher further show that each indicator contributes meaningfully to its corresponding latent construct (Hair et al., 2019). All constructs met these criteria. CR and Cronbach's Alpha values exceeded the

recommended threshold of 0.70, and AVE values fell within the acceptable range of 0.531–0.683. All outer loadings surpassed 0.70, confirming strong associations between indicators and their respective constructs. Collectively, these results provide evidence of strong internal consistency, convergent validity, and indicator reliability, confirming that the measurement model is suitable for subsequent structural model analysis (Hair et al., 2019; Henseler et al., 2015; Fornell & Larcker, 1981). To assess potential common method bias, the full collinearity approach proposed by Kock (2015) was employed. All full collinearity Variance Inflation Factor (VIF) values were below the recommended threshold of 3.3, indicating that common method bias was unlikely to threaten the validity of the findings.

Table 2 shows the reliability and convergent validity of the measurement model.

Table 2. Alpha, CR, and AVE

Item	Alpha	CR (rho-a)	CR (rho-c)	AVE
Smart human–AI	0.702	0.717	0.811	0.559
Pleasure	0.768	0.767	0.866	0.683
Arousal	0.726	0.742	0.801	0.562
Dominance	0.767	0.783	0.855	0.632
Intention to revisit	0.752	0.766	0.845	0.602
Digital literacy	0.714	0.757	0.818	0.531

Table 3 shows that all outer loadings and weights are statistically significant and exceed the recommended thresholds, indicating that the indicators reliably represent their respective constructs. These results confirm the robustness of the measurement model and support the adequacy of the indicators for subsequent structural model analysis (Hair et al., 2019).

Table 3. Assessment of loadings and significance statistics

Item	t-statistic	p-value	Outer loadings	p-value
Smart human–AI				
SH-AI1	3.788	0.000	0.776	0.000
SH-AI2	4.050	0.000	0.794	0.000
SH-AI3	5.301	0.000	0.863	0.000
SH-AI4	6.298	0.000	0.749	0.000
SH-AI5	5.946	0.000	0.737	0.000
SH-AI6	5.204	0.000	0.773	0.000
SH-AI7	5.414	0.000	0.728	0.000
SH-AI8	4.641	0.000	0.793	0.000

Item	t-statistic	p-value	Outer loadings	p-value
Pleasure				
P1	8.571	0.000	0.729	0.000
P2	8.878	0.000	0.772	0.000
P3	9.301	0.000	0.802	0.000
P4	10.077	0.000	0.793	0.000
P5	7.254	0.000	0.719	0.000
P6	9.276	0.000	0.815	0.000
Arousal				
A1	5.057	0.000	0.772	0.000
A2	3.045	0.000	0.806	0.000
A3	4.968	0.000	0.763	0.000
A4	5.963	0.000	0.748	0.000
A5	6.945	0.000	0.719	0.000
A6	7.117	0.000	0.800	0.000
Dominance				
D1	9.304	0.000	0.783	0.000
D2	5.466	0.000	0.802	0.000
D3	9.545	0.000	0.773	0.000
D4	5.792	0.000	0.769	0.000
D5	4.189	0.000	0.702	0.000
D6	6.967	0.000	0.791	0.000
Intention to revisit				
IR1	6.908	0.000	0.819	0.000
IR2	8.347	0.000	0.771	0.000
IR3	4.142	0.000	0.738	0.000
IR4	5.673	0.000	0.814	0.000
IR5	7.693	0.000	0.779	0.000
IR6	5.558	0.000	0.827	0.000
IR7	9.721	0.000	0.773	0.000
IR8	7.382	0.000	0.852	0.000
Digital literacy				
DL1	2.323	0.000	0.719	0.000
DL2	3.505	0.000	0.737	0.000
DL3	3.603	0.000	0.817	0.000
DL4	4.694	0.000	0.785	0.000

Table 4 shows that all HTMT values are below the recommended threshold of 0.85. Besides, the Fornell–Larcker criterion indicates that the square root of the AVE for each construct is higher than its correlations with other constructs. These results confirm discriminant validity, indicating that the constructs represent distinct and non-overlapping concepts (Fornell & Larcker, 1981).

Bootstrapping with 5,000 resamples was conducted to evaluate the significance of the hypothesized relationships. As shown in Table 5, Smart human–AI (SH–AI) has significant positive effects on all emotional dimensions, including pleasure ($\beta = 0.513$, $p = 0.000$), arousal ($\beta = 0.529$, $p = 0.000$), and dominance ($\beta = 0.412$, $p = 0.000$). However, the direct effect of SH–AI on revisit intention was

Table 4. Discriminant validity assessment using HTMT and Fornell-Larcker criteria

Item	Smart human-AI	Pleasure	Arousal	Dominance	Intention to revisit	Digital literacy
Smart human-AI	0.747					
Pleasure	0.322 (0.234)	0.826				
Arousal	0.484 (0.260)	0.491 (0.310)	0.749			
Dominance	0.597 (0.411)	0.434 (0.304)	0.429 (0.294)	0.794		
Intention to revisit	0.555 (0.354)	0.408 (0.242)	0.523 (0.341)	0.535 (0.359)	0.775	
Digital literacy	0.586 (0.435)	0.179 (0.102)	0.105 (0.101)	0.207 (0.112)	0.396 (0.107)	0.728

not significant ($\beta = 0.065$, $p = 0.420$), indicating the absence of a direct relationship. Regarding the effects of emotional responses on revisit intention, all three dimensions show positive and significant relationships. Pleasure ($\beta = 0.302$, $p = 0.008$), arousal ($\beta = 0.220$, $p = 0.043$), and dominance ($\beta = 0.329$, $p = 0.001$) all contribute to increasing guests' intention to revisit, with dominance showing the strongest effect among the three. In terms of explanatory power, the model explains 26.3% of the variance in pleasure, 28.0% in arousal, 16.9% in dominance, and 61.6% in revisit intention. According to established guidelines (Höck & Ringle, 2010), these values indicate moderate explanatory power for the emotional constructs

and strong explanatory power for revisit intention. Overall, the results demonstrate that smart human influence revisit intention primarily through emotional mechanisms, with dominance and digital literacy playing particularly critical roles in shaping guests' behavioral responses.

The mediation analysis further confirms differentiated indirect effects (see Tables 6 and 7). As shown in Table 6, SH-AI significantly influences revisit intention through pleasure ($\beta = 0.155$, $p = 0.014$) and dominance ($\beta = 0.135$, $p = 0.016$), whereas the indirect effect through arousal was not significant ($\beta = 0.116$, $p = 0.071$). Consistent with these findings, the total indirect effect was significant ($\beta =$

Table 5. Direct relationships

Item	β	Sample mean (M)	SD	t-value	p-value	97.5% CI	VIF	Decision
H1a: SH-AI $\rightarrow$ IR	0.065	0.056	0.081	0.806	0.420	[-0.077,0.251]	1.217	Unsupported
H1b: SH-AI $\rightarrow$ P	0.513	0.545	0.074	6.890	0.000	[0.309,0.620]	1.588	Supported
H1c: SH-AI $\rightarrow$ A	0.529	0.556	0.068	7.803	0.000	[0.343,0.629]	1.501	Supported
H1d: SH-AI $\rightarrow$ D	0.412	0.447	0.090	4.555	0.000	[0.188,0.550]	1.786	Supported
H2: P $\rightarrow$ IR	0.302	0.308	0.113	2.669	0.008	[0.054,0.500]	1.841	Supported
H3: A $\rightarrow$ IR	0.220	0.229	0.109	2.020	0.043	[-0.014,0.414]	2.662	Supported
H4: D $\rightarrow$ IR	0.329	0.336	0.103	3.187	0.001	[0.091,0.504]	1.000	Supported
	R²	Adjusted R²	Q²					
Pleasure	0.263	0.254	0.244					
Arousal	0.280	0.271	0.266					
Dominance	0.169	0.156	0.151					
Intention to revisit	0.616	0.596	0.587					

Table 6. Specific indirect effects and mediation type

Mediation path	Direct effect β (p)	Specific indirect effect β (p)	97.5% CI	Type of mediation
H5: SH-AI $\rightarrow$ P $\rightarrow$ IR	0.065 (0.420)	0.155 (0.014)	[0.018,0.268]	Full mediation
H6: SH-AI $\rightarrow$ A $\rightarrow$ IR	0.065 (0.420)	0.116 (0.071)	[-0.014,0.237]	No mediation
H7: SH-AI $\rightarrow$ D $\rightarrow$ IR	0.065 (0.420)	0.135 (0.016)	[0.031,0.240]	Full mediation

Table 7. Overall effects of the mediation model

Effect	β	t-value	p-value	97.5% CI
Total indirect effect	0.407	5.500	< 0.001	[0.303, 0.591]
Total effect	0.472	5.813	< 0.001	[0.352, 0.668]

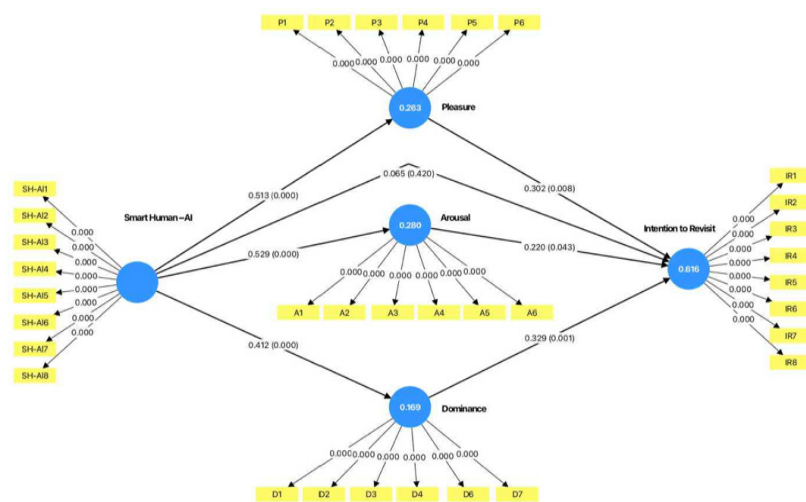
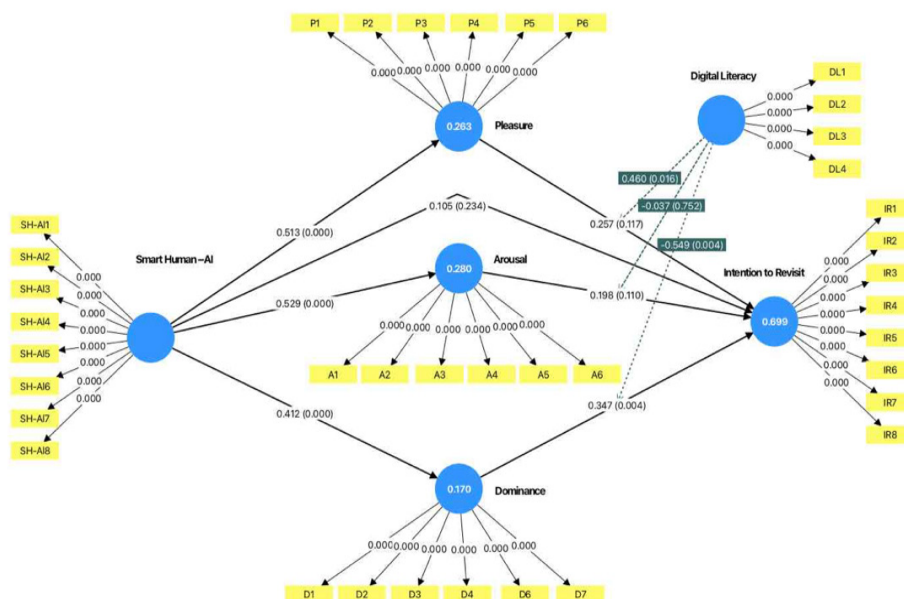
Table 8. Moderation analysis

Item	β	Sample mean (M)	SD	t-value	p-value	97.5% CI	VIF	Decision
H8a: DL* P $\rightarrow$ IR	0.460	0.398	0.191	2.411	0.016	[0.177, 0.961]	1.137	Supported
H8b: DL* A $\rightarrow$ IR	-0.037	-0.037	0.116	0.317	0.752	[-0.259, 0.188]	1.119	Unsupported
H8c: DL* D $\rightarrow$ IR	-0.549	-0.503	0.190	2.882	0.004	[-1.017, -0.243]	2.461	Supported

0.407, $p < 0.001$), while the direct effect remained non-significant ($\beta = 0.065$, $p = 0.420$), indicating indirect-only mediation through pleasure and dominance, but no mediation through arousal (see Table 7).

With respect to the moderating role of digital literacy (see Table 8 and Figure 3), the interaction effects reveal a mixed pattern. Digital literacy sig-

nificantly strengthens the relationship between pleasure and revisit intention ($\beta = 0.460$, $p = 0.016$), while its moderating effect on arousal is not significant ($\beta = -0.037$, $p = 0.752$). Interestingly, digital literacy shows a significant negative moderating effect on the dominance–revisit intention relationship ($\beta = -0.549$, $p = 0.004$), suggesting that higher levels of digital literacy may weaken the influence of dominance on behavioral intention.

**Figure 2.** Structural model results (SmartPLS output)**Figure 3.** Structural model results (SmartPLS output) – with moderator

4. DISCUSSION

The results demonstrate that several factors and mechanisms shape guests' revisit intention in AI-enhanced hospitality environments, with revisit intention forming primarily through indirect emotional pathways rather than through a direct influence of AI-supported human-AI service experiences. Specifically, the direct relationship between smart human-AI service experiences and revisit intention was statistically insignificant, indicating that guests do not decide to revisit hotels merely because they perceive AI-supported services as clear, accurate, responsive, or reliable. Instead, these service experiences first generate emotional responses that subsequently translate into future behavioral intentions. This finding is consistent with Zhang et al. (2026) and Tran et al. (2025), who suggest that the influence of human-AI collaboration on behavioral outcomes is not direct but emerges through emotional mechanisms developed during service interactions. First, the findings indicate that positive perceptions of AI-supported human-AI service experiences significantly enhance all three emotional dimensions of the PAD model, namely pleasure, arousal, and dominance. This suggests that when guests perceive frontline employees as effectively integrating artificial intelligence into service delivery by providing accurate information, timely responses, reliable recommendations, and contextually appropriate assistance, they experience higher levels of enjoyment, stimulation, and perceived control throughout the service encounter. These findings align with the arguments of Helme Falk et al. (2025) and Kumawat et al. (2025), who emphasize that artificial intelligence creates customer value when technological capabilities are translated into meaningful service experiences through human judgment and interaction. The results are also consistent with Yan et al. (2025) and Maindola et al. (2026), who highlight that employees' ability to interpret AI outputs and adapt them to situational and cultural contexts enhances customers' emotional experiences during service delivery. Within the Iraqi hospitality context, characterized by linguistic diversity and deeply rooted service norms, these customer perceptions are particularly important, as guests evaluate the effectiveness of AI-supported services by how successfully employees translate technological capabilities into contextually relevant and trustworthy service experiences (Maindola et al., 2026).

Second, the findings show that emotional responses are the primary mechanism through which AI-supported human-AI service experiences influence revisit intention. All three PAD dimensions significantly and positively affect revisit intention, with dominance emerging as the strongest predictor. This indicates that guests are more likely to revisit hotels when AI-supported service experiences increase their sense of control, confidence, and empowerment during service encounters. Rather than responding solely to technological sophistication, guests appear to value service experiences that enable them to feel capable of making informed decisions and navigating the service process effectively. These findings are consistent with Bui and Quyen (2025), who argue that emotional responses extend beyond temporary reactions and become important determinants of long-term behavioral intentions, including revisit intention. They also support the theoretical assumptions of the PAD framework proposed by Mehrabian and Russell (1974), which holds that environmental stimuli influence behavioral evaluations through emotional states. Third, the mediation analysis reveals that emotional responses serve as selective mechanisms rather than uniform transmission pathways. AI-supported human-AI service experiences significantly influence revisit intention through pleasure and dominance, whereas the indirect effect through arousal is statistically insignificant. This finding indicates that not every emotional reaction generated during AI-supported service encounters contributes equally to future behavioral intentions. While feelings of enjoyment and empowerment effectively translate positive service experiences into revisit intention, emotional excitement alone appears insufficient to sustain future behavioral commitment. Consequently, the emotional consequences of AI-supported service experiences operate through differentiated psychological mechanisms rather than through a single homogeneous emotional process. This finding is consistent with Ashfaq et al. (2025), who argue that human-AI integration functions as an environmental stimulus that generates multiple emotional responses with different capacities to translate the quality of service interactions into subsequent behavioral outcomes.

Fourth, the moderating analysis shows that digital literacy is an important cognitive boundary condition that shapes how emotional responses influ-

ence revisit intention. Digital literacy significantly strengthens the positive relationship between pleasure and revisit intention, suggesting that digitally competent guests are better able to translate enjoyable AI-supported service experiences into stronger behavioral commitment. In contrast, digital literacy does not significantly moderate the relationship between arousal and revisit intention, indicating that emotional excitement influences future behavior similarly regardless of guests' technological competence. Interestingly, digital literacy exerts a significant negative moderating effect on the dominance–revisit intention relationship, implying that as guests become more digitally knowledgeable, the behavioral importance of perceived control gradually declines. Contrary to our theoretical expectation, this negative moderating effect suggests that digitally literate guests rely less on feelings of control generated during AI-supported service encounters and instead evaluate AI-supported services more critically based on their functional performance, transparency, and service quality. Consequently, as digital literacy increases, the motivational influence of dominance on revisit intention becomes weaker. Digitally literate guests may rely more heavily on their own technological competence and cognitive evaluation of AI-supported services, thereby reducing their dependence on emotional feelings of empowerment during decision-making. These findings are consistent with Yang et al. (2025) and Makhafole et al. (2025), who suggest that individuals with higher digital literacy increasingly interpret emotional experiences through structured cognitive frameworks that reshape the influence of emotions on behavioral intentions. Overall, the findings provide strong empirical evidence that revisit intention in AI-enhanced hospitality environments is primarily generated through mediated emotional mechanisms rather than through direct evaluations of AI-supported service experiences. Guests' positive perceptions of AI-supported human–AI service experiences do not directly translate into loyalty intentions but instead stimulate specific emotional responses that subsequently shape future behavioral decisions. Furthermore, the results demonstrate that these emotional mechanisms are not identical in their behavioral influence, as dominance plays the strongest mediating role while digital literacy selectively amplifies or weakens the effectiveness of

different emotional pathways. Accordingly, revisit intention emerges through the interaction among customer perceptions of AI-supported service experiences, emotional processing, and individual cognitive capabilities.

This study offers a focused theoretical contribution by integrating the Pleasure–Arousal–Dominance (PAD) framework into research on AI-supported human–AI service experiences from a customer-centered perspective. Rather than treating the focal construct as smart human resource management, the study explains how guests' evaluations of AI-supported service encounters influence behavioral outcomes through interconnected emotional and cognitive mechanisms. More specifically, the findings reconceptualize AI-mediated service experiences as customer-perceived service processes in which frontline employees transform artificial intelligence into clear, accurate, reliable, and contextually meaningful service encounters, thereby extending traditional technology acceptance perspectives toward an experiential, emotion-centered explanation of customer behavior.

From a practical perspective, the findings show that the effectiveness of artificial intelligence in hospitality services depends less on technological sophistication than on guests' perceptions of how well employees integrate AI into everyday service encounters. Consequently, hospitality managers should focus on enabling frontline employees to communicate AI-generated information clearly, provide reliable recommendations, respond accurately to guest needs, and adapt AI-supported services to specific contexts. Simultaneously, organizations should strengthen employees' emotional intelligence, contextual awareness, and digital interpretive capabilities so that AI-supported service experiences elicit positive emotional responses that enhance guest loyalty and revisit intention. However, a key limitation of this study is its reliance on a single contextual setting, which may limit the generalizability of the proposed model across different cultural and service environments. Future studies should examine whether customer perceptions of AI-supported human–AI service experiences trigger similar emotional mechanisms across different hospitality contexts and in countries with varying levels of technological maturity and digital literacy.

CONCLUSION

The study examines how smart human–AI service experiences influence hotel guests’ revisit intention through PAD emotions and the moderating role of digital literacy. The findings demonstrate that guests’ revisit intention in AI-enhanced hospitality is not formed directly by their positive evaluations of AI-supported human–AI service experiences, but primarily through emotional pathways. Guests’ perceptions of clear, accurate, reliable, and responsive AI-supported service encounters first elicit emotional responses, which subsequently shape future behavioral intentions. The mediation process is selective rather than uniform, as pleasure and dominance significantly transmit the influence of AI-supported service experiences to revisit intention, whereas arousal does not exert a significant indirect effect. Furthermore, digital literacy serves as an important cognitive boundary condition that strengthens some emotional pathways while weakening others, reflecting the dynamic interaction between emotional processing and individual cognitive capabilities when guests evaluate AI-supported service experiences. Overall, the findings indicate that the value of artificial intelligence in hospitality does not stem solely from the technological capabilities of AI systems themselves, but from guests’ perceptions of how effectively frontline employees integrate these technologies into service delivery. When employees successfully transform AI capabilities into service experiences characterized by clarity, responsiveness, accuracy, reliability, and contextual relevance, they create meaningful emotional experiences that ultimately encourage guests’ intention to revisit.

AUTHOR CONTRIBUTIONS

Conceptualization: Ahmed Dheyauldeen Salahaldin.

Data curation: Abdulaziz Abdullah Obaid.

Formal analysis: Ahmed Dheyauldeen Salahaldin.

Investigation: Abdulaziz Abdullah Obaid.

Methodology: Ahmed Dheyauldeen Salahaldin.

Project administration: Abdulaziz Abdullah Obaid.

Validation: Ahmed Dheyauldeen Salahaldin.

Writing – original draft: Ahmed Dheyauldeen Salahaldin.

Writing – review & editing: Abdulaziz Abdullah Obaid.

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REFERENCES

1. Al-Faouri, E. H., Abu Huson, Y., Aljawarneh, N. M., & Alqmool, T. J. (2024). The role of smart human resource management in the relationship between technology application and innovation performance. *Sustainability*, 16(11), 4747. <https://doi.org/10.3390/su16114747>
2. Anggari, B. Y. I. (2024). Human–AI collaboration in tourism work: A systematic review of impacts on jobs and skills. *Advances in Tourism Studies*, 2(3), 119–226. <https://doi.org/10.53893/ats.v2i3.64>
3. Ashfaq, M., Ulhaq, I., Pham, H. C., & Shahzad, K. (2025). Critical determinants of intentions to revisit smart hotels: An examination of smart service interactional experience, emotions, and technophilia. *Journal of Hospitality Marketing & Management*. Advance online publication. <https://doi.org/10.1080/19368623.2025.2464029>
4. Bui, B. T. T., & Quyen, H. D. (2025). A holistic perspective on

- revisit intention: Investigating place attachment, authenticity and satisfaction in domestic tourism. *Journal of Hospitality and Tourism Insights*, 9(4), 1526-1546. <https://doi.org/10.1108/JHTI-02-2025-0287>
5. Castaneda, A. R., Maseeh, H. I., Surachartkumtonkun, J., Shao, W., & Thaichon, P. (2026). Impact of frontline employees' perceived benefits of artificial intelligence on AI adoption and job engagement: A meta-analysis. *International Journal of Hospitality Management*, 133, 104446. <https://doi.org/10.1016/j.ijhm.2025.104446>
6. Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50. <https://doi.org/10.1177/002224378101800104>
7. Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2-24. <https://doi.org/10.1108/EBR-11-2018-0203>
8. Hasanein, A. M., Salahaldin, A. D., Khairy, H. A., & Abdou, A. H. (2026). How anthropomorphic brands foster customer engagement in online food delivery platforms: Unveiling the roles of respect, attachment, heroism and readiness. *British Food Journal*, 18-26. <https://doi.org/10.1108/BFJ-12-2025-1732>
9. Helme Falk, M., Eklund, A. A., & Akhshik, A. (2025). Integrating sensory marketing with artificial intelligence in hospitality: A future research agenda. *International Journal of Contemporary Hospitality Management*, 37(13), 149-168. <https://doi.org/10.1108/IJCHM-10-2024-1560>
10. Henseler, J., Ringle, C. M., & 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), 115-135. <https://doi.org/10.1007/s11747-014-0403-8>
11. Hsu, C. H. C., Chen, N., & Zhang, S. (2023). Emotion regulation research in hospitality and tourism. *International Journal of Contemporary Hospitality Management*, 36(6), 2069-2085. <https://doi.org/10.1108/IJCHM-01-2023-0049>
12. Hussein, Y. I., & Salahaldin, A. D. (2025). The impact of customer journey in restaurants on sustainable marketing practices: The moderating role of digital social media. *Heritage and Sustainable Development*, 7(2), 691-708. <https://doi.org/10.37868/hsd.v7i2.1422>
13. Hwang, B.-N., Puntha, P., & Jitanugoon, S. (2026). Human-centric AI: Transforming service ecosystems for inclusivity and excellence in resource-constrained contexts. *Journal of Service Theory and Practice*. Advance online publication. <https://doi.org/10.1108/JSTP-01-2025-0017>
14. Ji, C., Liu, Y., & Prentice, C. (2025). The ripple effects of great experience with attending exhibitions: The case of the integrated resorts. *Journal of Hospitality and Tourism Management*, 64, 101322. <https://doi.org/10.1016/j.jhtm.2025.101322>
15. Jiang, M., & Garrod, B. (2025). Stirring the emotions: Modelling the role of emotions in developing satisfaction and loyalty in tea tourism experiences. *Current Issues in Tourism*. Advance online publication. <https://doi.org/10.1080/13683500.2025.2478285>
16. Jiang, Y., Cai, Z., & Wang, X. (2025). Leverage generative AI for human resource management: Integrated risk analysis approach. *The International Journal of Human Resource Management*, 36, 1929-1959. <https://doi.org/10.1080/09585192.2025.2544972>
17. Kakada, P., & Shafi, M. M. K. (2023). Smart HR 4.0 with impact of technology advancement and Industry 4.0 on HR practices. In *Data-driven decision making for long-term business success*. <https://doi.org/10.4018/979-8-3693-2193-5.ch002>
18. Kumawat, E., Datta, A., Prentice, C., & Leung, R. (2025). Artificial intelligence through the lens of hospitality employees: A systematic review. *International Journal of Hospitality Management*, 124, 103986. <https://doi.org/10.1016/j.ijhm.2024.103986>
19. Lee, P. C., Chuang, N.-K., & Law, R. (2025). Lonely planet: Effect of workplace loneliness on subjective career success in the hospitality workplace. *Journal of Hospitality and Tourism Insights*, 8(9), 3461-3478. <https://doi.org/10.1108/JHTI-11-2024-1197>
20. Liu, G. G., Benckendorff, P., & Walters, G. (2026). Conceptualizing hospitableness in human-robot hospitality interactions. *International Journal of Hospitality Management*, 135, 104640. <https://doi.org/10.1016/j.ijhm.2026.104640>
21. Liu, Y., & Jang, S. S. (2009). The effects of dining atmospherics: An extended Mehrabian-Russell model. *International Journal of Hospitality Management*, 28(4), 494-503. <https://doi.org/10.1016/j.ijhm.2009.01.002>
22. Maindola, S., Bangwal, D., Oberoi, S. S., & Kumar, R. (2026). Transforming hospitality 5.0: A systematic review of AI's impact on employee experience and well-being. *International Journal of Quality and Service Sciences*. Advance online publication. <https://doi.org/10.1108/IJQSS-09-2025-0245>
23. Makhafole, L., van Deventer, M. J., Holmner, M. A., & van Wyk, B. (2025). A scoping review of digital literacy, digital competence, digital fluency, and digital dexterity in the academic libraries' context. *The Journal of Academic Librarianship*, 51(3), 103053. <https://doi.org/10.1016/j.acalib.2025.103053>
24. Mehrabian, A., & Russell, J. A. (1974). *An approach to environmental psychology*. USA: The Massachusetts Institute of Technology. Retrieved from <https://archive.org/details/approachtoenviro00albe/mode/1up>
25. Nazarian, A., Mohammadjavad S., Alireza R., Narges S., & Peter A. (2024) Determinants of Intention to Revisit in Hospitality Industry: A Cross-Cultural Study Based on Globe Project. *Journal of Interna-*

- tional Consumer Marketing, 36(1), 62-79. <https://doi.org/10.1080/08961530.2023.2192537>
26. Pericleous, K., Liasidou, S., & Dyankov, T. (2025). AI and hotel employees' coexistence: A helpful tool or a threat to job loss? *Worldwide Hospitality and Tourism Themes*, 17(1), 132-143. <https://doi.org/10.1108/WHATT-01-2025-0001>
 27. Seočanac, M. (2025). Smart HRM 4.0: The digital transformation of human resource management in tourism. *The European Journal of Applied Economics*, 22(1), 18-31. <https://doi.org/10.5937/EJAE22-56542>
 28. Sharif, A. A., Oudah, B. K., & Salahaldin, A. D. (2023). Human resources development as strategic entrance to maximize the investment in human capital: Exploratory research for a sample of employees of NASA Iraq. *AIP Conference Proceedings*, 2776(1). AIP Publishing. <https://doi.org/10.1063/5.0135988>
 29. Soliman, M., Buaniaw, A., As-salihee, M., & Noipom, T. (2026). Predicting factors influencing tourists' word-of-mouth intention in Thailand's Deep South: An integrated model. *Journal of Hospitality and Tourism Insights*. Advance online publication. <https://doi.org/10.1108/JHTI-03-2025-0343>
 30. Souki, G. Q., Oliveira, A. S., Barcelos, M. T. C., Guerreiro, M. M. M., Mendes, J. C., & Moura, L. R. C. (2023). Emotional, cognitive and behavioural repercussions of hotel guests' experiences. *Spanish Journal of Marketing – ESIC*. <https://doi.org/10.1108/SJME-01-2023-0002>
 31. Syah, A., & Binesh, N. (2025). AI-enabled nudging in tourism and hospitality: A systematic review and research agenda through the lens of "MINDSPACE". *Tourism and Hospitality Research*. Advance online publication. <https://doi.org/10.1177/1467358425140941>
 32. Tan, K.-L., Hofman, P. S., Noor, N., Tan, S.-R., Hii, I. S. H., & Cham, T.-H. (2024). Does artificial intelligence improve hospitality employees' individual competitive productivity? A time-lagged moderated-mediation model involving job crafting and meaningful work. *Current Issues in Tourism*, 27, 3284-3301. <https://doi.org/10.1080/13683500.2024.2391114>
 33. Tran, D. T., Nguyen, K. T., Huynh, D. V., & Stangl, B. (2025). Satisfaction with response: The impact on potential customers' perceived service quality and intent to stay. *Annals of Tourism Research Empirical Insights*, 6(1), 100179. <https://doi.org/10.1016/j.annale.2025.100179>
 34. Van Deursen, A., & Van Dijk, J. (2010). Measuring Internet skills. *Int. J. Hum. Comput. Interact.*, 26, 891-916. Retrieved from <https://www.tandfonline.com/doi/full/10.1080/10447318.2010.496338>
 35. Wang, P. Q., Yan, L., & Santoso, C. (2025). Generational engagement with AI in hospitality: Human-AI interaction perspectives across the service process. *Current Issues in Tourism*, 28, 1281-1294. <https://doi.org/10.1080/13683500.2025.2528981>
 36. Wu, T.-J., Zhang, R.-X., & Zhang, Z. (2025). Navigating the human-artificial intelligence collaboration landscape: Impact on quality of work life and work engagement. *Journal of Hospitality and Tourism Management*, 62, 276-283. <https://doi.org/10.1016/j.jhtm.2025.02.005>
 37. Xu, H., Li, X., Lovett, J. C., & Cheung, L. T. O. (2025). Chat-GPT for travel-related services: A pleasure-arousal-dominance perspective. *Tourism Review*. Advance online publication. <https://doi.org/10.1108/TR-07-2024-0570>
 38. Yan, J., Xiao, Q., Zhang, S. X., & Guchait, P. (2025). Artificial intelligence in hospitality: A transactional stress perspective on the mental health of hospitality workers. *International Journal of Hospitality Management*, 126, 104029. <https://doi.org/10.1016/j.ijhm.2024.104029>
 39. Yang, H., Xu, N., Lin, X., & Zhang, W. (2025). Integrating AI literacy into the TAM-TPB model to explain students' intention to use educational AI through MASEM approach. *Computers in Human Behavior Reports*, 20, 100833. <https://doi.org/10.1016/j.chbr.2025.100833>
 40. Yu, Y., Chen, J., Mehraliyev, F., & Liu, J. (2024). Exploring the diversity of emotion in hospitality and tourism from big data: A novel sentiment dictionary. *International Journal of Contemporary Hospitality Management*, 36(2). <https://doi.org/10.1108/IJCHM-08-2023-1234>
 41. Zhang, Y., Quoquab, F., Mohamad, J., & Tao, Y. M. (2026). When customers meet robots: How authenticity and delight shape revisit intention through customer-robot interaction. *Technological Forecasting and Social Change*, 226, 124607. <https://doi.org/10.1016/j.techfore.2026.124607>

APPENDIX A

Table A1. Research constructs, measurement scales, and references

Construct	Code	Construct items	References
Smart Human–AI	SHR-AI1	The employee explains the information or recommendations provided by the AI system in a way that is easy for me to understand.	Al-Faouri et al. (2024)
	SHR-AI2	I feel that the employee is able to clarify why the AI system suggests a certain action or decision.	
	SHR-AI3	When the AI system misunderstands my request, the employee can quickly and accurately correct the interpretation.	
	SHR-AI4	I feel that the collaboration between the employee and the AI system makes the service faster and smoother.	
	SHR-AI5	The employee's use of AI tools helps them respond to my needs more accurately.	
	SHR-AI6	I feel that the employee becomes more capable of solving my issues when supported by AI tools.	
	SHR-AI7	I feel that the service provided through collaboration between the employee and the AI system is more reliable than traditional service.	
	SHR-AI8	I trust that the actions taken through the joint work of the employee and the AI system are accurate and correct.	
Pleasure	P1	I felt comfortable and pleased during the interaction between the employee and the AI systems in the hotel.	Liu and Jang (2009)
	P2	The hybrid service experience (employee + AI) put me in a positive mood while receiving the service.	
	P3	I felt happy while using or receiving AI-supported services in the hotel.	
	P4	The AI-supported service experience made me feel emotionally comfortable and reassured.	
	P5	I experienced a sense of enjoyment while interacting with the employee and AI systems.	
	P6	The overall interaction created a pleasant and satisfying emotional experience for me.	
Arousal	A1	I found the hybrid interaction experience stimulating and engaging.	
	A2	The smart technologies used in the service made the interaction feel more exciting and livelier.	
	A3	I felt more motivated to explore the hotel's services because the employees used AI systems.	
	A4	The AI-enabled interaction created a sense of excitement throughout the service experience.	
	A5	I felt mentally alert and highly engaged while interacting with the employee and AI systems.	
	A6	The integration of AI into the service made the experience feel more vivid and interactive.	
Dominance	D1	I felt that I had full control during my interaction with the employee and the AI systems in the hotel.	
	D2	I did not feel confused; I was able to direct or stop the interaction whenever I wanted.	
	D3	I felt confident and in control when dealing with AI-supported services because the employee made them easy to use.	
	D4	I felt a strong sense of control over how the interaction with AI-supported services unfolded.	
	D5	The interaction allowed me to feel independent and in charge of my decisions.	
	D6	I felt empowered to influence the service outcome during my interaction with the employee and AI systems.	
Intention to revisit	IR1	I intend to stay at this hotel again in the future because of the positive service experience I had.	Nazarian et al. (2024)
	IR2	I am likely to choose this hotel again if I need accommodation in this destination.	
	IR3	I would prefer this hotel over other hotels for my future stays.	
	IR4	Based on my recent experience, I plan to revisit this hotel whenever I return to this city.	
	IR5	I am highly likely to revisit this hotel in the future.	
	IR6	This hotel would be my preferred option for future stays in this destination.	
	IR7	I intend to prioritize this hotel when making future accommodation decisions.	
	IR8	I have a strong intention to return to this hotel based on my experience.	
Digital literacy	DL1	I am confident in my ability to use digital technologies to accomplish tasks efficiently.	Van Deursen and Van Dijk (2010)
	DL2	I can easily understand and evaluate information provided by digital systems.	
	DL3	I can learn and adapt quickly when using new digital technologies or applications.	
	DL4	I feel capable of solving problems that arise when interacting with digital systems.	