

ASSESSING THE EFFECTS OF TRUST AND TECHNOLOGY ANXIETY ON TOURIST ADOPTION OF AI-ENABLED TECHNOLOGIES IN THE HOTELS IN JAMMU AND KASHMIR**Rohan Sharma¹, Rohit Bhagat^{2*}, Sunil Bhardwaj³, Pallavi Bhagat⁴**¹Research Scholar, The Business School, Bhaderwah Campus, University of Jammu^{2*}Assistant Professor, The Business School, Bhaderwah Campus, University of Jammu³Assistant Professor, The Business School, Bhaderwah Campus University of Jammu⁴Assistant Professor, MAM College, Jammu**Corresponding author Email I.D:** rohithbhagat.ju@gmail.com**ABSTRACT**

AI technologies are changing the way services are offered in the hospitality industry. Some examples of these are chatbots, automated check-ins, and smart rooms. These technologies improve efficiency and customization; yet, tourists' readiness to utilize these services is profoundly affected by their cognitive perception and awareness of technology (Buhalis and Leung, 2018; Gursoy et al., 2019). The study examines the impact of trust and technological anxiety on the use and acceptance of AI-enabled hospitality services by tourists in Jammu and Kashmir. 250 tourists were approached for data collection through a quantitative cross-sectional methodology, employing structured questionnaires derived from validated measurement scales to assess trust, technology anxiety, and the intention to utilize technology (McKnight et al., 2011; Meuter et al., 2003; Venkatesh et al., 2012). The results reflect that tourists use AI-based hotel services when they trust AI systems more, but their fear of technology leads to anxiety. Also, trust only somewhat lessens the negative effects of worry, which means that psychological aspects that affect technology adoption need to be balanced. The results suggest that just improving technology won't be enough for AI to work well in the hospitality industry. The study leads to research on technology adoption and offers very important practical insights for hotel managers that aims to the sustainable integration of AI-driven services within the tourism sector.

Keywords: Artificial Intelligence; Trust; Technology Anxiety; Tourist adoption; Hospitality Industry.**INTRODUCTION**

The service market is changed because of digital technologies and is providing new ways for the usage. Tourism and hospitality industries are developing on a good pace in few several years. Hotels are increasingly implementing AI-based tools such as chatbots, recommendation engines, automated check-in and check-out systems, facial recognition applications, and smart room management technologies. These solutions streamline operational processes and enable faster, more personalized service delivery. By reducing waiting times and providing relevant information to support decision-making, AI applications can enhance overall customer satisfaction (Ivanov and Webster, 2019; Buhalis and Leung, 2018; Tussyadiah, 2020). The usage of artificial intelligence (AI) is significant for new ideas that hotels and tourism businesses are coming up with. More and more hotels and chains are using AI-powered chatbots, recommendation systems, automated check-in and check-out, facial recognition technologies, and smart room management systems. Jammu and Kashmir (J&K) offers a captivating setting for examining this matter famous for beautiful landscapes rich culture, and historical relevance, the area is among the top tourist destinations of India. The tourism sector plays a great role in the local economy by creating employment opportunities and supporting business development. In order to adapt to the evolving needs of services, hotels in J&K have progressively incorporated digital solutions and AI-based solutions in enhancing efficiency and competitiveness. This kind of technology integration fits with the bigger picture of smart tourism, which focuses on digital interaction and intelligent services management (Buhalis and Leung, 2018; Carvalho and Ivanov, 2024). Nonetheless, the hopes of visitors for personal interactions and emotional bonds between those providing services and the travelers influence their perceptions of hospitality in J&K. Tourists frequently think of regional hospitality as having conversations built on trust and sharing cultural experiences. Automation can make service delivery better, but it can also change how familiar and comfortable people feel. When people are in a foreign country, they depend on trust and dependability to judge their service experiences. This makes their psychological responses to technology more important (Belanche et al., 2020; Gursoy et al., 2019). Research shows that AI can make patient services more efficient, but it also raises worries about privacy, data security, system reliability, and emotional detachment (Belanche et al., 2020). These problems show the importance is to seek the psychological variables that alter how people use technology. Studies regularly show that trust and fear about technology are important factors in how people use new technologies. When mutual trust exists, people are more likely to share information, rely on the system, and accept automated recommendations (McKnight et al., 2011; Gefen et al., 2003). In hospitality environments, trust lessens doubt and makes it more likely that people will use AI-powered services. People are more inclined to use hotel services that use AI if they trust them, but worry can make them avoid them. There are many studies on technology and tourism broadly, but there is a deficiency of empirical studies that simultaneously investigate these psychological elements within the particular context of Jammu and Kashmir. This gap shows that we need to do research that is specific to each situation to get a better picture of how people react to new technologies. To address this gap, the present study conducts a quantitative analysis examining the empirical effects of trust and technology fear on the uptake of AI-enabled hotel services in Jammu and Kashmir. This study elucidates the interaction among these variables, refining the theoretical framework of technology acceptance in the hospitality sector and providing pragmatic insights for service providers and legislators striving to reconcile efficiency with emotional comfort in technology implementation. Ultimately, travellers' views are a key part of the hospitality industry, thus it's important to combine technology progress with important humanistic values to make travel more enjoyable. Therefore, it is essential to develop user-friendly systems and offer supported resources (Venkatesh et al., 2003; Gursoy et al., 2019). In the socio-cultural milieu of Jammu & Kashmir, the interplay between trust and technology concern has heightened significance. People who are traveling in new places often judge service systems by how safe and reliable they seem

1. LITERATURE REVIEW**1.1 Artificial Intelligence in the Hospitality Industry**

The execution of the Artificial Intelligence (AI) technologies has already become a staple of the hospitality industry, with organizations trying to increase the efficiency of their operations and provide their customers with a better experience in the ever-competitive market. Hospitality is experiencing the adoption of algorithms and AI-based solutions to serve and boost the customer experience, including automated kiosks, virtual assistants, chatbots, and smart recommendation systems. "These technologies contribute to the quicker reaction time, lessen human error, and provide the possibility of personalizing services due to the guest's suitability and data about his/her behavior. Using the capabilities of predictive analytics and machine learning, companies have the ability to foresee customer needs and optimize service delivery processes, which in turn boosts customer loyalty and improves overall efficiency (Buhalis and Leung, 2018).

Beyond operational efficiency, integrating AI represents a significant aspect of a broader shift towards digital transformation within tourism environments, in which the technological integration of services networks and smart destination strategies are supported. By enabling hospitality providers to use their resources in a more strategic manner, automate repetitive tasks, and improve decision-making based on

real-time insights that can be obtained based on data analytics, AI applications enable the latter to operate more efficiently. Research demonstrates that robotic technology and smart service systems do more than boost efficiency; they also allow human employees to engage in interactions that necessitate emotional sensitivity, cultural understanding, and creativity (Ivanov and Webster, 2019). Hospitality is considered as a relationship oriented and service quality depends on the warmth and attentiveness of the staff. Too much dependence on automatic systems may lead to impersonal experiences that may lead to the low satisfaction of the Tourists. Gursoy and others in their study on acceptance of AI device in service delivery highlighted that technical functionality, perceived authenticity, comfort level and relational value are very important for the acceptance of AI technologies by the users. Therefore, to assess, do the technological advancements are in line with the experiential expectations, it is important to analyses the psychological and behavioral responses of users to AI-enabled services (Gursoy et al., 2019)

2.2. Trust in Artificial Intelligence Systems

Trust in AI Systems: Trust is the important psychological factor that determines how technologies are used by the users specifically in situations that involve reliance on process or systems that don't have adequate transparency or direct oversight. This shift in the functions shows that AI is capable of helping individuals in offering hospitality services rather than replacing them. In spite of increasing integration of Artificial Intelligence in service delivery, still number of challenges exists there that hinder user flexibility and their expectations for engaging experiences. The hospitality industry revolves around the human relationships, with majority of the guests connecting service quality with the warmth and affection of the personal interactions. Therefore, too much of automation may decrease the perceived expectation and authenticity and may lead to less satisfaction. Accordingly, academics argue that assessing AI technology adoption requires consideration of both how well it functions and how it affects perceived human relationships (Gursoy et al., 2019)

2.3 Technology Anxiety and User Interaction

Using Technology requires Trust, but being afraid of it can make it hard to use it well. People who are afraid of technology often feel nervous or worried when they have to use new or sophisticated tech. This nervousness may stem from feelings of inadequacy, uncertainty about the system's functionality, or apprehensions about making mistakes when using it (Meuter et al., 2003). Users may use automated services and less likely to trust them if they are in this kind of emotional pain. Studies on the use of self-service technology show that higher levels of anxiety are linked to avoidance behaviors and lower levels of satisfaction with the encounter. Some people may prefer to talk to a person instead of using technology, even if automated options are easier to use. This tendency is quite essential in the hotel business, where people go to rest and have fun, not to work hard or learn new things. Because of this, tourists who are tensed about technology may not get the experiential advantage they should from AI-enabled services (Meuter et al., 2003). Also, worry about technology can make concerns with privacy, reliability, and the dehumanization of service encounters even worse.

Tourists who perceive automated systems as excessively intrusive or difficult to operate may harbor negative sentiments regarding them, which could potentially influence their overall assessment of the service. Studies demonstrate that individuals can experience a significant increase in their level of comfort and engagement by reducing anxiety through the implementation of user-friendly interface design, plain communication, and helpful mechanisms. Therefore, it is crucial to comprehend the sentiments of individuals regarding technology in order to establish service environments that are both user-friendly and inviting (Gursoy et al., 19) how they rate the services as a whole. Research demonstrates that the facilitation of anxiety management, attained through user-friendly interface design, efficient communication, and guiding systems, can significantly enhance comfort and engagement levels. Consequently, comprehending the emotional response to technology is essential for fostering inclusive and simple to operate service settings (Gursoy et al., 19). Technology adoption and Behavioral Intention. Theoretical models, including the Technology adoption Model (TAM) and the other one Unified Theory of adoption and Use of Technology (UTAUT), are systematic methods of understanding how people make an assessment and use technology innovation. The theories assert that cognitive perceptions impacting the intention to utilize technology involve utility, usage efficiency, influence of society and better conditions (Venkatesh et al., 2012). In hospitality studies, the arguments are used to examine tourists' views on AI-based services in terms of convenience, efficiency, and experience enhancement. Research shows that the more individuals view technological devices as beneficial and easy to use, the stronger their intention to adopt them becomes. In contrast, perceived risks or complexities may hinder engagement. These cognitive evaluations interact with psychological traits such as trust and technological anxiety, which influence how valuable and user-friendly a technology appears. For example, when trust boosts perceived advantages and anxiety amplifies perceived difficulties, both can affect decision-making. By incorporating these traits into adoption models, researchers can better illustrate user behavior in service contexts, addressing both functional and emotional expectations (Belanche et al., 2020; McKnight et al., 2011; Meuter et al., 2003).

2. RESEARCH GAP AND HYPOTHESIS DEVELOPMENT

Even though academics have thoroughly examined the subjects of AI utilization and technology implementation, still there are pending issues about the context and concepts. Most of the already available research works have either been done in highly technologically developed or urbanized areas or have restricted the scope of knowledge on behavioral reactions in culturally specific or geographically specific tourism destinations. The areas like Jammu and Kashmir offer a distinctive hospitality setting where interpersonal warmth, cultural interaction, and emotional bond are a part and parcel of service experiences. Therefore, perceptions of automated technologies among the tourists might vary as compared to other more technologically saturated conditions. Moreover, there is no common study that investigates the interactive effect of trust and technology anxiety on the adoption behavior but research frequently examines trust and anxiety related to technology as separate factors influencing technology adoption. To fill this gap, the current work will assess the joint impact of trust and technology anxiety on tourist use of AI-enabled hospitality services in the socio-cultural environment of Jammu and Kashmir. Drawing from theoretical concepts and empirical evidence we gathered suggests the following hypotheses:

- **H1:** Trust has a positive impact on tourists' adoption of AI-enabled hotel services (McKnight et al., 2011; Belanche et al., 2020).
- **H2:** Technology anxiety has a negative impact on tourists' adoption of AI-enabled hotel services (Meuter et al., 2003).
- **H3:** Trust mitigates the influence of technology anxiety on adoption behavior. (Gursoy et al., 2019)

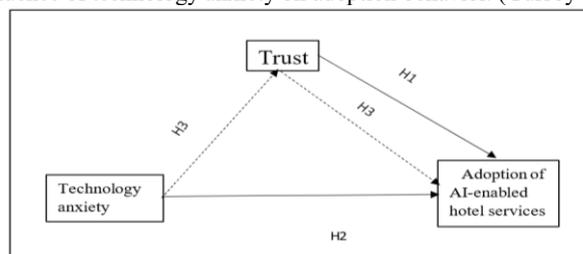


Figure 1: Conceptual Framework Model

3. METHODOLOGY

3.3. Research Design

The study utilized a quantitative cross-sectional research design to investigate how trust and technology anxiety influence tourists' adoption of AI-enabled hotel services in Jammu and Kashmir. Quantitative approach enables objective measurement of perceptions, as well as behavioral responses by statistical analysis, whereas the cross-sectional design enables researchers to collect data by surveying respondents at one time. This design is suitable for examining the connection between hidden variables and confirming theoretical models using multivariate analysis tools (Hair et al., 2019).

3.4. Data Collection and Sampling

The primary data were gathered by using tourists to major tourist attraction sites in Jammu and Kashmir that include Jammu, Srinagar, Gulmarg, Pahalgam and Baderwah. We chose the convenience sampling technique due to accessibility constraints and the dispersion of the tourist population throughout different regions. As indicated by the planned questionnaires, both online and offline questionnaires were conducted, which resulted in 250 responses to be analyzed. This is also a sufficient factor size and structural equation modelling because it meets the suggested factor analysis and SEM thresholds that guarantee sufficient statistical power (Hair et al., 2019).

The responses given were done voluntarily and anonymously and it was made clear to data will be confidential and only to be used in academic purpositories. The data was screened before analysis to verify the absence of missing values, outliers, and normality tests.

3.5. Measurement Instrument

To construct a structured questionnaire, validated scales of measurements were used in earlier studies. The trust on AI-enabled services was evaluated using scales adapted off McKnight et al. (2011), technology anxiety using scales adapted off (Meuter et al. 2003), The intention to adopt was evaluated using constructs based on the Unified Theory of Acceptance and Usage of Technology framework (Venkatesh et al., 2012). Participants rated the items on a five-point Likert scale, ranging from strongly disagree (1) to strongly agree (5), allowing them to express varying levels of agreement while maintaining the integrity of the constructs being measured.

3.6. Exploratory Factor Analysis (EFA)

We used SPSS to do Exploratory Factor Analysis (EFA) to find out if the measurements of measurement items had dimensional validity and to check the underlying factor structure. We utilized the Kaiser-Meyer-Olkin (KMO) statistic and the Bartlett Test of Sphericity to see if the sampling was good enough. Principal Component Analysis with Varimax rotation was used to extract factors so that they would be easier to understand. To make sure that the construct was genuine, components that were less than acceptable levels were filtered out. The items were determined to correlate to their respective latent constructs, as the study validated the dataset's suitability for additional modelling (Hair et al., 2019).

4.5. Confirmatory Factor Analysis (CFA)

We used AMOS to do confirmatory factor analysis to evaluate the measurement model and find the links between the observed indicators and the latent constructs. The goodness-of-fit was assessed using several metrics, including the Chi-square/df ratio, Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Goodness-of-Fit Index (GFI). We used standardized factor loading, Composite Reliability, and the Average Variance Extracted values to assess convergent validity. To test discriminant validity, we compared inter-construct correlations with the square root values of AVE. These kinds of techniques made the measuring framework reliable and legitimate.

4.6 Structural Equation Modeling (SEM)

Structural Equation Modelling was employed to assess the proposed correlations between trust, technological anxiety, and the uptake of AI-enabled hotel services. SEM enables the simultaneous estimation of measurement and structural correlations among latent constructs. The fit indices CFI, TLI, RMSEA, SRMR, and NFI were used to evaluate the structural model and see how well the theoretical assumptions matched the actual data (Hair et al., 2019). Standardized path coefficients were used to look at the strength and direction of the associations and to test the offered hypotheses. We used bootstrapping to find the indirect effects and the confidence intervals of the mediation effects.

5. Results

5.1. Sample Profile and Descriptive Statistics

Table 1 displays the demographics of the 250 participants. There were 58% men and 42% women in the sample. Most of the people that answered were under 40 years old, which is a relatively young age group. 69% of persons had a bachelor's degree or higher, which is a lot of education. The income levels were different, with the most common range (38%) being between ₹4 and ₹8 lakh per year. The sample was very evenly split between Jammu (48%) and Kashmir (52%), which meant that the Union Territory's most popular tourist areas were represented.

5.2. Descriptive Statistics of Constructs

Table 2 displays the descriptive statistics for the principal constructs. The mean response regarding trust in AI-enabled hotel services was rather high (Mean = 3.63), indicating a generally favourable perception of the system's reliability and security. The mean score for technology anxiety was 2.94, which means that people weren't very worried, but they were nonetheless worried about using AI-based services. The inclination towards the utilization of AI-enabled hotel services was favorable (Mean = 3.58), reflecting a willingness to embrace automated service features, such as smart check-in or computerized assistance. Overall, it shows that tourists are still rather cautiously enthusiastic about technology. This is because they trust it and use it a lot, but the emotional worries that come along with technology still have an effect on how people use it.

Table 1: Sample Profile and Descriptive Statistics

Category	Classification	Frequency	Percentage (%)
Gender	Male	145	58
	Female	105	42
Age Group	Below 30 years	85	34
	30-40 years	75	30
	41-50 years	50	20
	Above 50 years	40	16
Education Level	Up to Higher Secondary	78	31
	Bachelor's Degree	110	44
	Postgraduate & Above	62	25
Annual Income	Below ₹4 Lakhs	60	24
	₹4-8 Lakhs	95	38
	₹8-12 Lakhs	55	22
	Above ₹12 Lakhs	40	16
Region of Survey	Jammu	120	48
	Kashmir	130	52

Table 2:

Construct	No. of Items	Mean	Standard Deviation
Trust in AI-enabled Services	5	3.63	0.72
Technology Anxiety	4	2.94	0.81
Adoption of AI-enabled Hotel Services	5	3.58	0.69

5.1. Measurement Model Assessment (CFA)

Confirmatory Factor Analysis (CFA) was used to confirm the measuring model that included trust, technological anxiety, and the use of AI-enabled hotel services. The model fit indices of the data are well enough, with CMIN/df = 2.18, CFI = 0.91, TLI = 0.92, and RMSEA = 0.057, which is fine. The factor loadings were all high and over 0.70, which made it easier for convergent validity and indicator reliability to work. The values of Average Variance Extracted (AVE) were between 0.56 and 0.66 which exceeds the suggested value of 0.50. Additionally, discriminant validity was also demonstrated to be true since square root of AVE of each construct was also acceptable. The results demonstrate that the measurement model is valid and applicable in structural analysis. All of these values are shown in Table 3.

Table 3: Measurement Model Assessment (CFA) Model fit Indices

Construct	Item Loading Range	Composite Reliability (CR)	AVE	√AVE
Trust in AI-enabled Services	0.72 – 0.86	0.89	0.62	0.79
Technology Anxiety	0.70 – 0.83	0.87	0.56	0.75
Adoption of AI-enabled Hotel Services	0.73 – 0.88	0.91	0.66	0.81

5.2. SEM Analysis/ Hypotheses testing

H1: Trust significantly impacts tourist’s adoption of AI-enabled hotel services.

The structural path between trust and adoption was positive and statistically significant ($\beta = 0.61, p < 0.001$). This implies that AI systems that are perceived by the tourists as reliable, safe and correct tend to boost their readiness to utilize such technologies significantly. Trust can therefore be used as a motivation factor that can boost the confidence of the users and minimize the uncertainties in automated service interactions.

H2: Technological anxiety significantly impacts tourists' adoption of AI-enabled hotel services.

The relationship between technology anxiety and adoption was negative and significant ($\beta = -0.34, p < 0.01$). This implies that the adoption behavior is deterred by the emotional unease and fear towards technological interfaces. The increased levels of anxiety also contributed to the fact that more anxious tourists were less likely to employ AI-enabled services, which proves that it is necessary to address the problem of emotional barriers by designing user-friendly devices and support systems.

H3: Trust mediates the influence of technology anxiety on adoption behavior.

Analysis revealed a significant indirect buffering effect ($\beta = 0.27, p < 0.05$), suggesting that trust partially reduces the adverse influence of anxiety on adoption. As soon as tourists are certain of the reliability of AI systems and their security, the resistance due to anxiety reduces, and the adoption rate grows. This observation indicates the interactive aspect of psychological determinants and emphasizes trust-building as an avenue of strategic direction in improving technology adoption.

Table 4: Hypotheses results

Hypothesis	Relationship	Path Coefficient (β)	p- value	Result
H1	Trust → adoption of AI-enabled Hotel Services	0.61	***	Supported
H2	Technology Anxiety → adoption of AI-enabled Hotel Services	-0.34	***	Supported
H3	Technology Anxiety → Trust → Adoption (Indirect Effect)	0.27	***	Supported

5.3. Mediation Analysis

The structural findings show there was a negative direct relation of technology anxiety and adoption of AI-enabled hotel services (H2) and that trust significantly impacted adoption (H1). Such results came to conclusion that there was a probability of a mediating or buffering effect of trust in the connection between technology anxiety and adoption. In order to test H3 formally, a bootstrapping was done. The indirect impact of technology anxiety on adoption via trust was determined to be significantly important (0.27, $p < 0.01$), with a bias-corrected confidence interval between 0.15 and 0.39, and it was not equal to zero. This finding suggests that the negative effect of technology anxiety on the readiness to use AI-enabled hotel services is partially countered by trust in AI products and services.

Accordingly, the mediation analysis confirms that trust plays a meaningful intervening role in shaping adoption behavior, thereby supporting H3.

Table 5: Mediation Analysis Direct and Indirect Effects

Path	Direct Effect (β)	Indirect Effect (β)	95% Confidence Interval	Result
Technology Anxiety → adoption	0.34**	—	—	Significant
Trust → adoption	0.61***	—	—	Significant
Technology Anxiety → Trust → adoption	—	0.27**	0.15, 0.39	Significant
Overall Mediation (H3)	Reduced(partial)	Significant	CI excludes 0	Supported

6. FINDINGS, DISCUSSIONS AND FUTURE RESEARCH

6.1. Summary of Findings

The study evaluated the influence of trust and technological anxiety on the adoption of AI-enabled hotel services by tourists in Jammu and Kashmir using structural equation modelling. The results reflected that trust had a favorable and significant impact on adoption behaviour (0.61, $p = 0.001$), reinforcing the notion that perceptions of reliability and data security enhance visitors' willingness to utilize automated services. The descriptive results indicated favourable trust levels (Mean = 3.63), reinforcing the notion of trust as a pivotal factor in acceptance (McKnight et al., 2011; Gefen et al., 2003). The influence of technological anxiety on adoption was significantly adverse (-0.34, $p = 0.01$), with respondents exhibiting a moderate level of worry (Mean = 2.94). The discomfort or ambiguity regarding computer interfaces is likely to hinder usage intentions, paralleling previously documented emotional barriers to technology adoption (Meuter et al., 2003; Venkatesh et al., 2003). The mediation study indicated that trust partially mitigates the adverse impact of anxiety (indirect effect 0.28, $p < 0.05$), highlighting the interplay between cognitive and emotional factors. The overall disposition towards AI-enabled services was favorable (Mean = 3.58), but with minor apprehensions.

6.2. Theoretical Implications

The findings contribute to the literature on technology acceptance by experimentally integrating the constructs of trust and technology anxiety within a unified model in a hospitality context. While these models are broadly recognized for emphasizing cognitive variables, the current study manifests that emotional aspects significantly influence behavioral results (Venkatesh et al., 2012). The robust predictive capacity of trust ($\beta = 0.61$) corroborates theoretical assertions that identify trust as a fundamental precursor to technology adoption (Gefen et al., 2003). Moreover, the discovery that trust serves as a buffering mechanism against anxiety expands the conceptual framework of the term, and its removal of direct effects reinforces the perspectives that emphasize the mediating function of trust in technological interaction contexts. The study extends the AI adoption theory to culturally service-oriented tourism contexts, where technology deployment remains nascent, by situating the investigation within the Jammu and Kashmir framework.

6.3. Practical Implications

The findings provide practical recommendations to hospitality managers and policy makers. Service providers need to prioritize transparency, ensure their systems are dependable, and offer consumers assurances regarding their privacy to foster trust. Improvement in these aspects could increase the adoption of AI-driven tourism services. The negative effect of technological anxiety ($\beta = -0.34$) highlights the importance of intuitive interfaces, targeted assistance, and blended service models that combine human interaction with automated systems. Training employees and providing on-site guidance could reduce fears and improve comfort with AI technologies, as shown by hospitality studies on technology (Gursoy et al., 2019). On a broader scale, governmental entities can contribute to digital perception initiatives to aid the transition to intelligent tourist systems. By simultaneously increasing trust and reducing anxiety, stakeholders can enhance the successful implementation of AI-based hospitality services.

7. Limitations and Future Research

The research provides insights into the adoption of AI-enabled hotel services by tourists in Jammu and Kashmir; yet, there are some limitations that may suggest future studies. First, the cross-sectional approach does not facilitate the monitoring of perception changes over time, particularly for trust (Mean = 3.63) and technology anxiety (Mean = 2.94), and their influence on adoption behavior ($\beta = 0.61$; $\beta = -0.34$). Longitudinal studies would more effectively capture the evolving behavior patterns as exposure rates to AI services increase. Second, the application of the study results to other tourist groups is limited by convenience sampling, indicating that probability sampling is essential in future research. Third, the model focused on significant psychological constructs and neglected to incorporate other factors, such as perceived usefulness, perceived risk, or service quality, which could enhance explanations taken from the various models of technology acceptance (Venkatesh et al., 2012). Furthermore, the geographical concentration of Jammu and Kashmir may restrict contextual applicability; thus, it is advisable to compare tourism across five distinct contexts. Finally, next-generation qualitative or mixed-method studies would further elucidate the domain of human-AI interaction at the emotional and experience levels, complementing quantitative findings and advancing theoretical frameworks.

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