

Long Paper

AI Use Trends, Challenges, and Action Framework in Mid-Scale Hotels

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Date received: December 10, 2025

Date received in revised form: January 29, 2026; March 4, 2026

Date accepted: March 6, 2026

Recommended citation:

Flores III, J. G., Adem, M. D. M., & Rico-Villanueva, E. (2026). AI use trends, challenges, and an action framework in mid-scale hotels. *International Journal of Computing Sciences Research*, 10, 4183-4206. <https://doi.org/10.25147/ijcsr.v10i0.831>

Abstract

Purpose – This study examined prevailing trends and challenges in the integration of Artificial Intelligence (AI) technologies in selected mid-scale hotels in Quezon City, focusing on their influence on guest experience enhancement, operational efficiency, and revenue optimization.

Method – A quantitative descriptive research design was employed. Data were gathered from 100 hotel guests who interacted with AI-assisted services using a structured, researcher-designed questionnaire. Descriptive statistics, including frequency, percentage, mean, standard deviation, and Average Weighted Mean (AWM), were used to analyze respondents' assessments.



Results – Findings revealed an overall positive evaluation of AI integration, with a grand mean of 3.86 interpreted as Agree. Respondents recognized AI's contribution to personalized service delivery, user-friendliness, streamlined hotel operations, and revenue responsiveness. However, data privacy and security emerged as the most prominent concern (M = 3.71, Agree), while challenges related to cost, technical skills gap, infrastructure readiness, and resistance to change were moderately perceived (overall M = 3.33, Neutral).

Conclusion – AI integration enhances service innovation and operational performance in mid-scale hotels. However, implementation barriers, particularly those related to data protection and system reliability, influence guest confidence and long-term acceptance.

Practical Implications – The study developed an AI Trends, Challenges, and Outcomes Model to guide hotel managers in strengthening system reliability, cybersecurity practices, staff preparedness, and user support mechanisms.

Research Implications – Grounded in the Technology Acceptance Model and Diffusion of Innovations Theory, the findings contribute empirical evidence to the growing body of research on AI adoption in hospitality settings.

Social Implications – Strengthening data governance, transparency, and responsible AI implementation can enhance guest trust and promote sustainable digital transformation in the hospitality industry.

Keywords – Artificial Intelligence, Hospitality Services, Guest Satisfaction, System Reliability, Data Privacy

INTRODUCTION

The accelerated pace of digital transformation following the global health crisis has significantly reshaped business operations across service-oriented industries. A 2020 industry report noted that organizations adopted technological systems at a much faster rate, resulting in widespread transitions toward automated and contactless operations. These developments have coincided with increasing demand for travel and accommodation services, which has highlighted the need for establishments to adapt rapidly to evolving consumer expectations. In the Philippine context, accommodation and food service activities account for a substantial share of micro, small, and medium enterprises, making technological preparedness and adaptability essential for sustaining competitiveness (Department of Trade and Industry [DTI], 2023).

Although innovation through digital systems has become central to service efficiency and customer engagement, smaller lodging establishments often face unique challenges

in adopting advanced technologies. Existing research shows that while the sector generally benefits from digitalization and artificial intelligence, many mid-level establishments struggle to fully implement these systems due to limited resources, operational capacity constraints, and slow adoption timelines (Barquissau et al., 2024; Antonopoulos, 2024). Larger hospitality groups, in contrast, are often able to adopt and integrate intelligent systems more quickly, giving them advantages in service optimization, customer interaction, and strategic positioning. Recent empirical studies further demonstrate that data-driven technologies, such as sentiment analysis of online hotel reviews, play a critical role in enhancing service evaluation and managerial decision-making in hospitality contexts (Dela Cruz et al., 2024).

The increasing demand for personalized, fast, and contactless services highlights the significance of artificial intelligence in service delivery. Intelligent systems such as automated service platforms, virtual assistance solutions, digital check-in interfaces, and data-driven decision support tools are increasingly recognized for improving service experience, reducing labor-intensive tasks, and enhancing customer satisfaction (Talukder et al., 2023; Gajić et al., 2024). This demand is reinforced by recent tourism statistics indicating a steady recovery and growth in domestic and international travel, which places additional pressure on hotels to improve service efficiency and responsiveness through digital solutions (Department of Tourism [DOT], 2024). Moreover, artificial intelligence has been identified as a key driver of sustainable tourism practices by improving operational efficiency and optimizing resource management within hospitality operations (Rasel et al., 2025). As consumer expectations continue to shift toward real-time, seamless, and customized service interactions, adopting such technologies is no longer viewed merely as optional but as a strategic requirement for operational viability.

Despite its promise, the integration of advanced systems remains uneven, particularly among smaller and mid-scale service providers. These discrepancies raise relevant questions about institutional readiness, operational capacity, and the nature of existing adoption barriers. Addressing these requires identifying where improvements are needed, such as aligning AI services with guest characteristics, enhancing user-friendliness, ensuring reliable system performance, and strengthening staff assistance.

Therefore, the present study examines trends and challenges related to artificial intelligence integration and generates a structured output in the form of a four-component model that presents key findings, corresponding actions, and expected outcomes. This output offers direction for strategic planning, enhances decision-making among hotel operators, and supports more sustainable technology utilization in mid-scale hotel operations.

LITERATURE REVIEW

Artificial intelligence has become increasingly relevant in the hospitality industry as hotels adopt digital systems to enhance service delivery, improve operational processes,

and support management decisions. Existing studies show how AI applications, such as automated service platforms and personalized guest systems, contribute to improved customer experiences and efficient operations. However, most research centers on large or high-end hotels, leaving limited evidence on how mid-scale establishments apply such technologies in practice. This review, therefore, synthesizes current literature on AI-related service benefits, operational applications, and challenges to establish a foundation for examining trends and areas for improvement in the integration of AI technologies in selected three-star hotels.

AI Adoption and Utilization in Hotel Service Experiences

Across the hospitality sector, AI is increasingly woven into the guest journey, from pre-arrival interactions to post-stay follow-ups. A broad synthesis of AI use in service delivery notes that hotels are moving from experimental tools toward more embedded systems that assist with check-in, information provision, and personalized recommendations, with guest acceptance closely tied to perceived usefulness and ease of use (Chi et al., 2020). Smart hotel technologies such as keyless entry, automated room controls, and app-based service requests have been shown to influence guests' visiting intentions when these tools are perceived as convenient, reliable, and not overly intrusive to the overall stay experience (Yang et al., 2021). Guests are more willing to engage with AI when it clearly reduces effort, speeds up service, or provides tailored options that feel relevant to their preferences.

AI-supported interfaces also shape how guests interpret the hotel's trustworthiness and service quality. In properties that deploy AI chatbots for inquiries and reservations, positive experiences with AI-enabled responsiveness and clear service interactions were noted to improve customer confidence and reinforce their intention to repeatedly engage with hospitality services that integrate such technologies (Gursoy & Cai, 2025). Similarly, the introduction of service robots in higher category hotels has been associated with curiosity and novelty at first contact, but booking intention increases when guests perceive these robots as helpful, easy to interact with, and well-integrated into existing human service routines (Rosman et al., 2023). Taken together, these findings suggest that AI adoption in hotel service experiences is most successful when technology is positioned as a supportive partner to human staff, quietly improving speed, personalization, and comfort while respecting guests' expectations for warmth and hospitality.

AI Integration for Operational Efficiency in Hotels

Artificial intelligence (AI) has become a central driver of operational efficiency within hotel management systems, particularly in streamlining processes, improving decision-making, and enhancing guest-related transactions. Modern hotels increasingly rely on AI-supported technologies such as automated check-in kiosks, predictive analytics, service robots, and integrated property management systems, all of which reduce labor demand while increasing accuracy and consistency in service delivery. Current evidence shows that

hotels utilizing AI systems have reported improvements in task automation, workload reduction, and real-time decision support critical in maintaining a competitive advantage.

A significant contribution to operational efficiency arises from improved customer service automation. Mandić et al. (2023) explained that AI-powered service delivery optimizes response time, reduces queuing during peak occupancy periods, and ensures consistent service performance, ultimately contributing to higher satisfaction while minimizing human error. Their findings emphasized that automated reception, ordering, and concierge tasks allow hotels to redirect manpower to roles requiring human judgment and emotional engagement. Similarly, Gupta et al. (2022) demonstrated that AI-enabled robotics in service cycles enhanced operational efficiency because robotic systems operate continuously without fatigue, ensuring uninterrupted task execution, such as delivery, front-desk reception, and housekeeping scheduling.

Further advancements are noted in strategic hotel operations such as pricing, demand forecasting, and revenue management. Gatera (2024) highlighted that predictive algorithms help hotels anticipate booking fluctuations and adjust rates dynamically, resulting in optimized occupancy and more competitive pricing strategies. Hotels utilizing AI-based pricing mechanisms recorded better revenue turnover, particularly in fluctuating demand seasons. Complementing this, Makar (2023) emphasized the role of AI systems in coordinating internal communication and workflow automation within hotel departments. Their analysis revealed that AI reduces redundancy, eliminates repetitive administrative tasks, and improves the timeliness of interdepartmental operations, ultimately accelerating service delivery.

Overall, evidence underscores that the integration of AI not only modernizes hotel efficiency but also transforms organizational competence. Hotels adopting AI have demonstrated stronger competitive positioning through optimized operations, reduced overhead costs, and improved accuracy in business decisions. The literature affirms that AI-assisted systems streamline hotels' operational functions by reducing processing time, improving interdepartmental communication, and supporting managerial decision-making (O'Toole et al., 2020). With continued advancements and acceptance of intelligent systems, hotels are poised to further enhance productivity and operational sustainability through AI-based innovations.

AI-Based Revenue Optimization and Competitive Positioning

Artificial intelligence (AI) has strengthened hotels' ability to achieve revenue optimization through accurate forecasting, strategic pricing, and enhanced market responsiveness. AI-driven decision support systems are able to analyze large volumes of historical booking records, competitor rates, guest behavior patterns, and seasonal trends, enabling hotel managers to respond proactively to market shifts. Rather than applying uniform pricing structures, hotels are now integrating AI-enabled pricing models that

adjust room rates dynamically based on real-time demand variables, thereby maximizing revenue capture at different occupancy levels.

Gatera (2024) emphasized that predictive algorithms significantly improve the precision of revenue forecasting by anticipating occupancy fluctuations and recommending optimal pricing schemes. By detecting demand surges or booking declines early, hotels are able to modify pricing strategies with minimal delay, resulting in better utilization of their room inventory. The study highlighted that hotels adopting AI pricing platforms gained improved yield performance, especially during post-pandemic recovery and peak tourist periods.

Mariani and Borghi (2023) further demonstrated that AI integration reshapes competitive positioning by improving service resilience and operational longevity. Their findings noted that AI-supported service systems enhance hotels' ability to maintain consistent performance even under fluctuating market conditions, which leads to sustained customer preference and stronger brand value. As AI technologies support continuity of service and operational agility, hotels gain a strategic advantage within highly competitive markets.

Revenue optimization also extends to guest profiling and behavioral analytics. Wang (2024) explained that generative AI tools help personalize offerings, providing tailored packages and value propositions based on real-time preference analysis. Such personalization influences willingness to pay and increases repeat booking likelihood, which results in higher revenue margins. The ability to segment customer types and recommend relevant pricing tiers strengthens hotels' positioning, especially among younger and experience-oriented travelers.

Finally, Bhuiyan et al. (2023) highlighted that AI-enhanced data pipelines improve managerial decision-making accuracy by integrating demand forecasting, revenue trends, competitor benchmarking, and guest spending patterns into actionable dashboards. Hotels utilizing big-data-supported AI systems demonstrated better strategic forecasting precision, which translated into improved performance scores relative to industry competitors. Overall, AI-based revenue optimization allows hotels not only to increase profit margins but also to reinforce their competitive identity through data-driven responsiveness, personalized guest strategies, and resilient market positioning.

Barriers, Risks, and Organizational Readiness Toward AI Adoption

The adoption of artificial intelligence (AI) in hotels enhances efficiency and guest experience, yet implementation remains hindered by internal resistance, cybersecurity concerns, and readiness limitations. Li et al. (2023) emphasized that employees often hesitate to embrace AI when they view it as a threat to job security or when skills required for AI use appear beyond their current competence. Their findings further highlighted that

strong leadership direction and supportive human resource systems help reduce resistance during digital transitions. Similarly, Usta (2024) noted that cybersecurity vulnerabilities and risks of data leakage increase when hotels adopt AI-enabled platforms such as biometrics, mobile transactions, and chat-based systems, which weakens managerial willingness to adopt AI when threat mitigation strategies are lacking.

Beyond human acceptance and risk factors, organizational infrastructure plays a significant role in hotels' readiness to implement AI. Jamaluddin and Rahmat (2022) observed that outdated systems and insufficient technological integration limit the operational efficiency that AI can offer, suggesting that modernization of property management systems and digital infrastructures is a prerequisite for effective AI use. Expanding on this, Cozzio et al. (2025) noted that differing readiness across hierarchical levels results in uneven adoption and highlighted that targeted training and capacity-building programs encourage frontline workers, managers, and executives to adopt AI confidently. Collectively, literature indicates that readiness toward AI adoption entails organizational restructuring, stronger cybersecurity systems, and enhanced digital competence. Hotels that address these requirements exhibit smoother integration, better operational performance, and more sustainable technological advancement.

THEORETICAL FRAMEWORK

The present study is grounded primarily in the Technology Acceptance Model (TAM), which explains how individuals evaluate and eventually adopt technologies based on perceived usefulness and perceived ease of use. In the context of hotel operations, AI features such as automated check-in, personalized recommendations, chat-based service assistance, and predictive booking systems are likely to be used when users find them beneficial and convenient. Recent hospitality studies reported that when hotel guests perceive AI as reliable, efficient, and easy to navigate, their level of acceptance and continued usage behavior increases (Gajić et al., 2024). Additionally, systematic evidence supports that perceived usefulness and ease of use remain critical predictors of technology adoption across service-driven and transactional environments such as digital payment systems, which further reinforces TAM's validity in emerging technological contexts (Fadilah & Andriani, 2025). Likewise, employees demonstrate stronger intention to adopt AI-based systems when training, usability, and system clarity support their workload rather than complicate it (Shin et al., 2025). Therefore, TAM aligns closely with the present study because it supports how respondent profiles and their evaluations of AI implementation influence acceptance, satisfaction, and future engagement with AI services.

The Diffusion of Innovations Theory (DOI) also supports this investigation by providing an organizational and industry-level lens through which hotel institutions decide to implement AI technologies. DOI emphasizes that adoption depends not only on the technology's benefits but also on compatibility, observability, trialability, and perceived complexity. Recent research in hospitality revealed that AI integration is faster among establishments that identify clear operational advantages, such as revenue optimization,

cost-efficient staffing structures, and enhanced customer experience (Espiloy, 2025). Conversely, hotels with insufficient technical infrastructure, high implementation costs, and uncertainty surrounding data privacy are likely to delay adoption. These barriers directly resemble the challenges identified in this study, specifically concerns involving cost, the technical skills gap, resistance to change, and limited readiness of both systems and personnel.

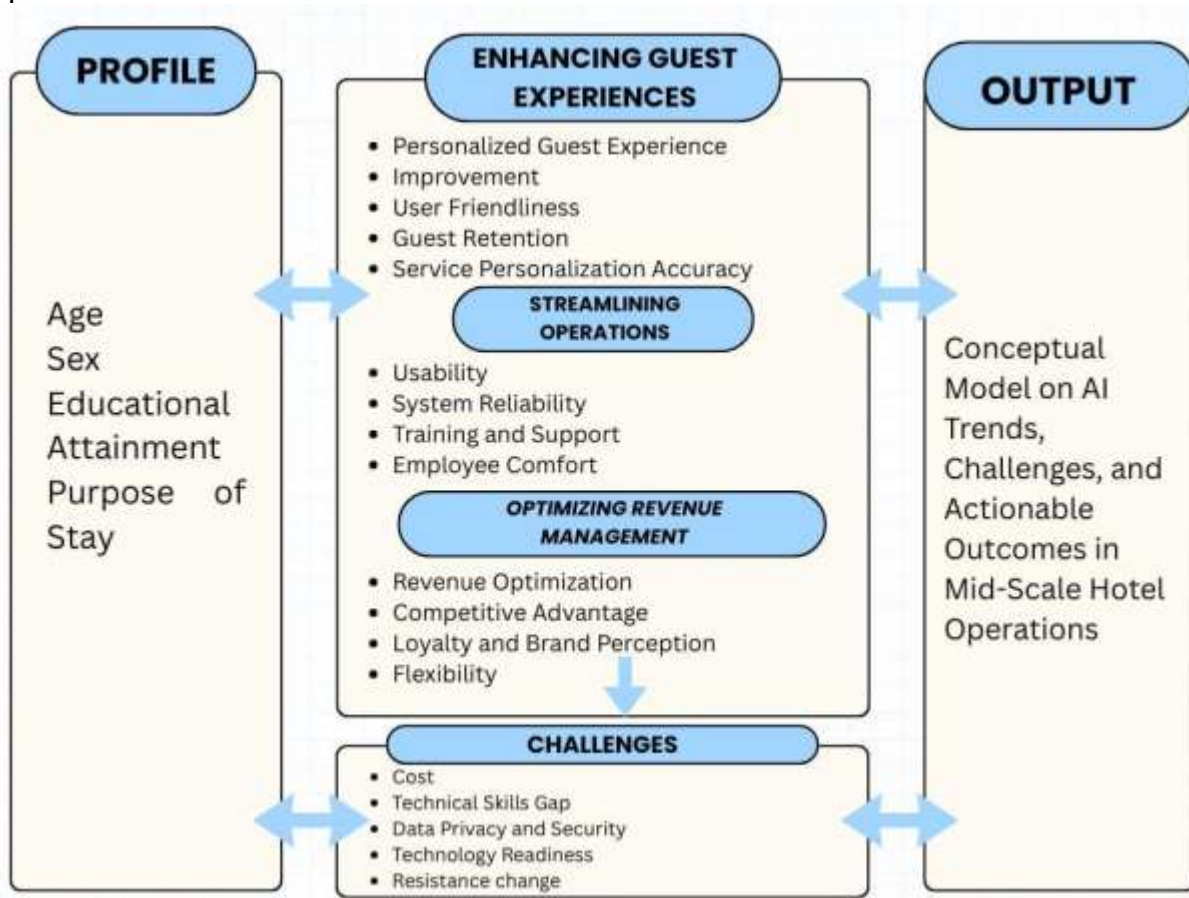


Figure 1. Conceptual Framework of the Study

Together, TAM and DOI provide a strong combined theoretical foundation for understanding trends and challenges in AI integration among mid-scale hotels. TAM explains the individual level of technology acceptance, particularly how guests and employees evaluate AI in terms of usability, personalization accuracy, reliability, and operational comfort. DOI, on the other hand, supports the interpretation of institutional adoption patterns, especially when hotels evaluate long-term sustainability, risks, and organizational alignment before implementation. When applied jointly, these theories help clarify why some hotels demonstrate strong adoption trends while others remain hesitant, which in turn provides a grounded basis for developing recommendations aimed at enhancing AI integration, improving operational systems, and strengthening service delivery outcomes.

Figure 1 illustrates how the demographic characteristics of hotel guests, such as age, sex, educational attainment, and purpose of stay, influence their perceptions of AI service delivery. These characteristics shape how guests respond to AI applications in enhancing their experience, streamlining operations, and optimizing revenue management. AI improves personalization, convenience, user friendliness, and efficiency while also strengthening operational systems by reducing manual processes, increasing reliability, and supporting staff performance. This contributes to improved guest satisfaction and a more innovative and technology-supported hotel experience.

Aligned with these benefits are the challenges that affect AI utilization, including concerns related to data privacy, system dependability, technical skills readiness, resistance to change, and cost limitations. Figure 1 shows that these challenges guide the development of appropriate actions aimed at improving AI adoption and system usability. The arrows leading to the output indicate that assessing both trends and barriers produces actionable recommendations that enhance performance, promote customer confidence, and support stronger service delivery. Therefore, Figure 1 provides a logical connection between guest profiles, their evaluation of AI functions, and the resulting interventions, which serve as a foundation for more effective AI integration in hotel operations.

Statement of the Problem

The rapid adoption of artificial intelligence in hospitality operations creates significant changes in how mid-scale hotels deliver services, manage transactions, and strengthen guest engagement. However, the extent to which AI-enabled systems influence service experiences remains unclear, particularly within establishments that face limitations in infrastructure, staffing preparation, and digital maturity. While emerging literature highlights improvements in personalization, operational accuracy, and decision-making efficiency, gaps persist in how guests actually experience these systems in real service environments. Understanding these conditions requires assessing how AI functions across the guest journey, how customer profiles relate to usage behavior, and which aspects of AI deployment contribute to satisfaction, convenience, and continued use.

In addition, mid-scale hotels face challenges in adopting AI consistently, including concerns regarding data privacy, reliability of technological features, readiness of personnel to support guests, and visibility of AI services across hotel facilities. These concerns may reduce trust, disrupt guest interaction with automated systems, and weaken the intended service benefits of AI deployment. Therefore, the study seeks to determine prevailing trends and implementation challenges of artificial intelligence from the perspective of actual hotel guests and to generate a structured output that translates findings into actionable recommendations. Through this investigation, the research aims to provide empirical evidence that may guide mid-scale hotels in refining their technological strategies, ensuring appropriate user support systems, and enhancing technology integration for improved service quality and operational outcomes.

Objectives of the study

General Objective

This study aims to determine the prevailing trends and challenges related to the integration of artificial intelligence technologies in selected mid-scale hotels within an urban setting.

Specific Objectives

1. Describe the profile of hotel guests in terms of
 - a. age
 - b. sex
 - c. civil status
 - d. highest educational attainment
 - , e. purpose of stay
2. Determine the assessment of respondents on the prevailing trends in AI usage with respect to:
 - a. enhancing guest experiences
 - b. streamlining hotel operations,
 - c. optimizing revenue management
3. Determine the assessment of respondents regarding the challenges encountered in AI integration in terms of:
 - a. cost
 - b. technical skills gap
 - c. data privacy and security
 - d. technology readiness
 - e. resistance to change
4. Propose recommendations that may enhance the integration and utilization of artificial intelligence technologies in selected mid-scale hotels.

METHODOLOGY

Research Design

This study employed a quantitative descriptive research design to examine hotel guests' perceptions of Artificial Intelligence (AI) integration in selected three-star hotels in Quezon City. The study aimed to describe respondents' assessments of prevailing AI trends in hotel operations, specifically in enhancing guest experiences, streamlining operations, optimizing revenue management, and identifying perceived challenges in AI implementation.

The research design was purely descriptive in nature. It focused on summarizing and interpreting respondents' perceptions based on survey data without conducting

inferential statistical testing or examining relationships among variables. The approach ensured direct alignment with the descriptive statistical results presented in the study.

Locale and Participants

The study was conducted in three selected three-star hotels located in Quezon City, a highly urbanized area in the Philippines, with increasing adoption of technology-enabled hotel services. The locale was purposively selected due to the presence of mid-scale hotels utilizing AI-related applications such as automated service platforms, chatbots, digital check-in systems, and computer-mediated guest services.

A total of 100 hotel guests participated in the study. Respondents were selected through convenience sampling during their stay in the identified hotels. Inclusion criteria required participants to be between 18 and 59 years old, to have completed at least one stay in the selected establishments, and to have interacted with at least one AI-assisted service. These criteria ensured that the responses were based on actual experiences with AI-enabled hotel operations.

Research Instruments

Data were collected using a structured, self-administered questionnaire composed of two sections. The first section gathered respondents' demographic information, including age, sex, civil status, highest educational attainment, and purpose of stay. The second section measured respondents' assessment of AI integration across three major domains:

- Enhancing guest experiences
- Streamlining hotel operations
- Optimizing revenue management

The instrument also assessed perceived challenges in AI implementation, including cost and financial constraints, technical skills gap, data privacy and security, infrastructure readiness, and resistance to change. Items were rated using a five-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5). Indicators included user-friendliness, personalization accuracy, system reliability, staff support, revenue optimization, and guest retention, consistent with the dimensions presented in Tables 1 and 3.

Validity and Reliability Procedures

Content validity was established through expert review by specialists in hospitality management, artificial intelligence applications, and research methodology to ensure alignment between the instrument and the study objectives.

A pilot test was conducted among hotel guests with similar characteristics to the study participants. Internal consistency reliability was assessed using Cronbach's alpha, with

coefficients meeting the acceptable threshold of 0.70 or higher, indicating that the instrument reliably measured perceptions of AI trends and challenges.

Data Collection Procedure

Permission to conduct the study was obtained from hotel management before data collection. The researcher approached eligible guests in hotel common areas such as the lobby and reception area. Participants were informed about the study's objectives and ethical safeguards before providing written informed consent. Completed questionnaires were retrieved immediately to ensure completeness and accuracy. Responses were encoded and processed using Jamovi statistical software.

Statistical Treatment of Data

Descriptive statistical measures were used to analyze the data. Frequency and percentage distributions summarized respondents' demographic profiles. Mean and standard deviation were computed to determine respondents' assessments of AI trends and implementation challenges. The Average Weighted Mean (AWM) was used to determine the level of agreement across AI trend and challenge dimensions, as presented in Tables 1 and 2.

RESULTS

Objective 1: Describe the profile of hotel guests in terms of age, sex, civil status, highest educational attainment, and purpose of stay.

Figure 2 presents the demographic distribution of respondents based on age, sex, educational attainment, and purpose of stay. The largest portion of respondents belongs to the 26–35 age group, followed by those aged 36–45, which shows that mid-scale hotels are mostly patronized by young and middle-aged adults who are highly mobile and likely familiar with digital systems. Most respondents were male, which may reflect the typical travel demographic or willingness to participate in the survey. In terms of education, the majority are college graduates, indicating that hotel guests are generally educated and likely exposed to technology-assisted services, which supports positive engagement with AI-driven features.

The data further reveal that most respondents stayed in the hotel primarily for leisure, while a smaller share indicated business-related stays. This suggests that mid-scale hotels in the area may be more attractive to leisure travelers who place value on convenience, fast transactions, and enjoyable service experiences. The combination of younger age, high educational attainment, and leisure-based purposes helps explain why AI-related services are generally well received, as this demographic is more inclined to appreciate personalized, technology-supported service interactions. Overall, the respondent profile

reflects a market segment that is both capable and receptive to AI-enhanced hotel systems.



Figure 2. Profile of Respondents

Objective 2: Determine the assessment of the respondents on the current trends in the use of AI technology in three-star hotels in Quezon City pertaining to: Enhancing Guest Experiences, Personalized Guest Experience Improvement, User-Friendliness, Guest Retention & Service Personalization Accuracy.

Table 1 below shows that respondents generally have a positive assessment of the current use of artificial intelligence (AI) technology in three-star hotels, as indicated by the grand overall mean of 3.86, interpreted as "Agree." Among the indicators, user-friendliness (M = 4.05) and usability (M = 4.04) received the highest ratings, suggesting that AI systems are perceived as accessible and helpful in improving guest experiences and operational efficiency. Other indicators, such as system reliability, revenue optimization, competitive advantage, loyalty and brand perception, and flexibility, also obtained favorable ratings. Overall, the results indicate that AI technology is viewed as beneficial in enhancing guest services, improving hotel operations, and supporting revenue management in three-star hotels.

Table 1. Respondents' Assessment on Current Trends in the Use of AI Technology in Three-Star Hotels

AI Trend Dimension	Indicators Covered	Overall Mean	Verbal Interpretation
Enhancing Guest Experiences	Personalized Guest Experience Improvement	3.92	Agree
	User-Friendliness	4.05	Agree
	Guest Retention	3.72	Agree
	Service Personalization Accuracy	3.92	Agree
Streamlining Operations	Usability	4.04	Agree
	System Reliability	3.84	Agree
	Training and Support	3.75	Agree
	Employee Comfort	3.87	Agree
Optimizing Revenue Management	Revenue Optimization	3.87	Agree
	Competitive Advantage	3.75	Agree
	Loyalty and Brand Perception	3.79	Agree
	Flexibility	3.79	Agree
Grand overall mean		3.86	Agree.

Objective No. 3. Determine the assessment of the respondents on the challenges faced by three-star hotels in Quezon City in integrating and implementing AI technologies, specifically in terms of: Cost and financial constraints, technical skills gap, Data privacy and security, Infrastructure readiness, and resistance to change

Table 2 below shows respondents' assessment of the main challenges encountered by three-star hotels in Quezon City in implementing and integrating AI technologies. The results show that the overall mean score is 3.33, interpreted as Neutral, indicating that

guests do not overwhelmingly perceive AI-related challenges as highly problematic but recognize their presence to some extent.

Among the five challenge dimensions, Data Privacy and Security obtained the highest mean value of 3.71, verbally interpreted as *Agree*. This suggests that guests express concern about how their personal information is used, stored, and protected when interacting with AI-enabled hotel systems. This also implies that potential issues in transparency and protection of data influence their comfort level when using AI features.

On the other hand, Technical Skills Gap ($M = 3.11$), Infrastructure Readiness ($M = 3.19$), and Resistance to Change ($M = 3.29$) all fall within the *Neutral* interpretation, which means that while guests notice occasional lapses such as slow adaptability, inconsistencies in usage, or limited mastery among staff, these do not strongly impact their overall hotel experience. Similarly, Cost and Financial Constraints ($M = 3.35$) was rated *Neutral*, indicating that guests do not strongly feel that AI contributes to increased service costs, additional charges, or noticeable financial burden.

Table 2. Challenges Faced by Three-Star Hotels in AI Integration

Challenge Dimensions	Mean	SD	DI
1. Cost and Financial Constraints	3.35	0.64	Neutral
2. Technical Skills Gap	3.11	0.52	Neutral
3. Data Privacy and Security	3.71	0.48	Agree
4. Infrastructure Readiness	3.19	0.55	Neutral
5. Resistance to Change	3.29	0.50	Neutral
Overall Mean Score	3.33	0.54	Neutral

The results imply that although AI adoption presents challenges, guests do not perceive them as substantial barriers. The implication is that if hotels address issues related to data protection and strengthen staff competency and system reliability, AI integration can be optimized without negatively affecting guest confidence, satisfaction, and technological acceptance.

Objective No.4: Propose recommendations that can be crafted to enhance the integration of AI technologies in three-star hotels in mid-scale hotel settings.

Figure 3 below presents a synthesized plan that links the major challenges in AI adoption with the recommended actions and their corresponding outcomes. The

illustration highlights a clear cause, action, and effect relationship, showing how specific interventions directly address issues that guests commonly encounter. System failures or lag are identified as the first major concern, and these can be resolved through continuous monitoring and maintaining system backups to ensure smooth service delivery. This stability in AI performance supports a more reliable guest experience. The figure also points out the lack of proactive staff assistance. To address this, the use of clear instructions, visual guides, and visible assistance from trained personnel can help guests use AI tools with greater confidence and less confusion.

The figure further reveals that AI has not yet become a strong influence on guest loyalty or booking decisions (Figure 3). To strengthen its impact, hotels may promote the benefits of AI more effectively and provide small incentives to encourage guests to try AI features. In addition, regular system audits and enhanced interface designs help hotels meet guest expectations for seamless technology integration. These actions lead to fewer frustrations, improved satisfaction, and a perception of more modern and advanced hotel operations. Overall, Figure 3 shows that aligning challenges with strategic improvements makes AI more beneficial for guests. The implication is that consistent improvements in reliability, usability, staff involvement, and guest awareness can significantly strengthen AI integration and contribute to higher service quality and guest loyalty.

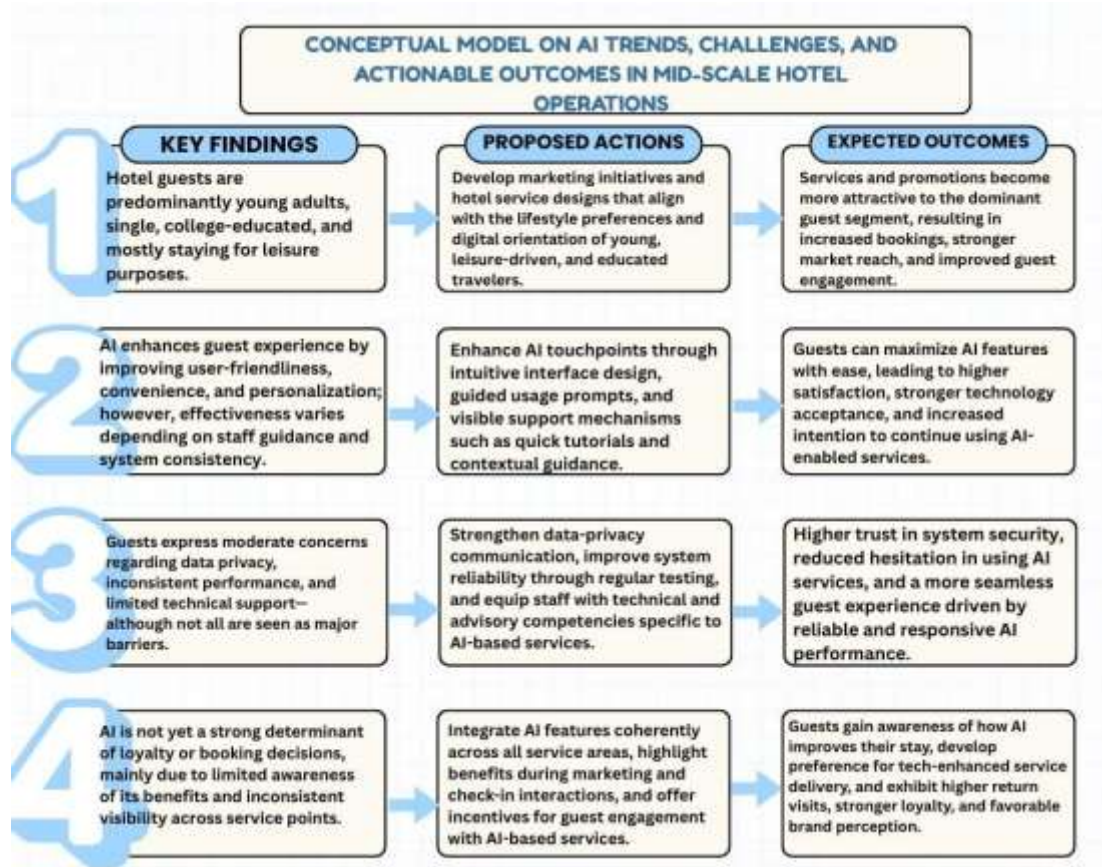


Figure 3. AI Trends, Challenges, and Outcomes Model

DISCUSSION

The demographic profile of hotel guests in the study shows that most respondents were young adults, predominantly female, single, and college-educated, with leisure as the primary purpose of their stay. These characteristics align with recent tourism reports indicating that younger and more educated travelers represent the strongest market segment for digitally enhanced and technology-driven hospitality experiences (Mapa, 2024). Research also confirms that these demographic groups tend to be more familiar and comfortable with AI systems, which influences their expectations of seamless, efficient, and modern hotel services (Biswas & Murray, 2024; Kong et al., 2021). However, other scholars argue that demographic traits alone do not guarantee positive AI acceptance since trust, ease of use, and clarity of interaction remain decisive factors in determining guest satisfaction (Rauf et al., 2022). This suggests that while guest profiles are favorable for AI adoption, hotels must still ensure supportive environments that reduce uncertainty and facilitate technology use.

Guests' perceptions of the quality and usefulness of AI features showed strong appreciation for personalization, service convenience, and user-friendliness. These results are supported by studies demonstrating that AI-enabled hotel systems enhance guest satisfaction through faster service, tailored recommendations, and improved consistency (Al-Hyari et al., 2023; Gupta et al., 2022). CRM-supported personalization enabled by machine learning has been shown to strengthen emotional attachment and brand loyalty as guests feel recognized and valued (Bronzin et al., 2021; Gajić et al., 2024). At the same time, recent work has cautioned against an overreliance on fully automated interactions, emphasizing the continuing importance of human presence in situations requiring empathy, reassurance, or complex judgment (Park et al., 2024; Mandić et al., 2023). These contrasting views reinforce the study's findings that AI enhances convenience but still benefits from human support to address diverse guest needs.

Despite positive evaluations, guests also recognized several challenges associated with AI use, such as occasional system lag, variable staff readiness, concerns about data privacy, and inconsistent integration of digital tools across hotel services. Such challenges are strongly reflected in global literature, which identifies data protection and cybersecurity as ongoing barriers to AI adoption in hospitality (Abd El Kafy et al., 2022; Oseni et al., 2020). Staff resistance, lack of technical skills, and inconsistent digital infrastructure have also been widely noted as constraints to operationalizing AI effectively, especially in service environments where human-technology coordination is essential (Li et al., 2023; Andrenko et al., 2022). Conversely, studies also show that these barriers can be mitigated through comprehensive staff training, better system design, and clear communication of AI benefits to both staff and guests (Rawal et al., 2022). These findings indicate that the challenges observed are neither unique nor insurmountable but rather reflect transitional issues in moving toward digitally enhanced hotel operations.

The strategic recommendations derived from the results center on improving system reliability, simplifying guest interaction, strengthening staff engagement, enhancing personalization through CRM integration, and instituting transparent data-handling practices. Literature strongly supports these directions, noting that continuous system audits and stability enhancements are fundamental to maintaining guest trust and ensuring positive user experiences (Zhang et al., 2022; Mariani & Borghi, 2023). Furthermore, promoting AI benefits and offering guided interactions can increase awareness and adoption, a trend supported by hospitality marketing research emphasizing the value of technology communication in guest decision-making (Bulchand-Gidumal et al., 2023). The broader shift toward digital yet human-centered hospitality underscores that effective AI deployment requires maintaining a balance between automation and human assistance to ensure comfort, trust, and satisfaction (Gursoy & Cai, 2025; Buhalis et al., 2020). Taken together, the findings and supporting literature suggest that continual enhancements in reliability, usability, staff competency, and data transparency will play a crucial role in strengthening AI integration and elevating overall service quality.

CONCLUSIONS AND RECOMMENDATIONS

This study described hotel guests' perceptions of Artificial Intelligence integration in selected mid-scale hotels in Quezon City. The findings indicate that respondents generally view AI technologies positively, particularly in enhancing guest experiences, streamlining hotel operations, and supporting revenue management functions. The overall assessment reflects agreement that AI contributes to service personalization, operational efficiency, and improved hotel performance. However, while most challenge dimensions were perceived at a moderate level, concerns regarding data privacy and security were notably more pronounced. These findings suggest that although AI adoption is favorably received, attention to data protection, system reliability, and staff support remains essential to sustain guest confidence and optimize technological integration. The synthesized AI Trends, Challenges, and Outcomes Model highlights that aligning operational improvements with guest expectations can strengthen service quality and reinforce the strategic value of AI in mid-scale hotel settings.

FUTURE DIRECTIONS FOR RESEARCH

Future research may explore the extent to which the recommended interventions on AI optimization influence long-term guest loyalty, operational performance, and digital readiness in similar hotel classifications. Future studies may also include multiple locations, larger respondent groups, or comparative analyses between hotel types to validate the generalizability of the present findings.

LIMITATIONS OF THE STUDY

This study focused only on respondents who stayed in selected three-star hotels, which limits the generalizability of the findings to other hotel classifications, such as budget, boutique, or five-star establishments that may have different levels of technological capability and operational standards. The data were also based solely on guest perceptions, which may not fully capture internal operational challenges experienced by hotel staff and management. As noted by Dianawati et al. (2024), guest competency and familiarity with smart hotel technologies significantly influence satisfaction and loyalty outcomes, suggesting that perception-based assessments may vary depending on users' technological readiness. In addition, the use of descriptive data constrained the depth of causal explanations regarding how specific hotel conditions directly affect the integration and effectiveness of AI technologies. The study was further limited to existing AI features already implemented at the time of data collection, which means emerging technologies introduced afterward were not reflected. These limitations should be considered when interpreting the findings and formulating applications.

ACKNOWLEDGEMENT

The researchers extend sincere thanks to the teachers and school administrators who shared their time and insights for this study. Appreciation is also given to the partner institution and colleagues for their support and guidance throughout the research.

FUNDING

This study did not receive financial support from any funding agency, institution, or organization.

DECLARATIONS

Conflict of Interest

The authors affirm that there are no conflicts of interest. The research was carried out independently, and no financial or personal affiliations influenced the conduct of the study, interpretation of the data, or conclusions drawn.

Informed Consent

Informed consent was obtained from all participants before data collection. Participation was entirely voluntary, and the respondents were assured of confidentiality and anonymity. No personal information was gathered at any stage of the research.

Ethics Approval

Ethical approval for this study was granted by the institution's Ethics Review Committee. All procedures followed the established ethical standards in educational research, ensuring that the participants' rights, privacy, and overall well-being were protected throughout the study.

REFERENCES

- Abd El Kafy, J., Eissawy, T., & Hasanein, A. (2022). Tourists' perceptions toward using artificial intelligence services in tourism and hospitality. *Journal of Tourism, Hotels and Heritage*, 5(1), 1–20. <https://doi.org/10.21608/sis.2022.145976.1064>
- Andrenko, I., Krasnokutska, I., & Kariuk, A. (2022). Digitalization of customer service in hotel establishments of Ukraine. *International Scientific Journal "Internauka": Economic Sciences*, 6(62), 1–12. <https://www.inter-nauka.com/uploads/public/16651588654237.pdf>
- Al-Hyari, H. S. A., Al-Smadi, H. M., & Weshah, S. R. (2023). The impact of artificial intelligence (AI) on guest satisfaction in hotel management: An empirical study of luxury hotels. *GeoJournal of Tourism and Geosites*, 48, 810-819. <https://doi.org/10.30892/gtg.482spl15-1081>
- Antonopoulos, N. (2024). Alternative forms of tourism user-generated content promote birdwatching tourism in Kefalonia Island, Greece. *Journal of Environmental Management and Tourism*, 15(3[75]), -. [https://doi.org/10.14505/jemt.v15.3\(75\).04](https://doi.org/10.14505/jemt.v15.3(75).04)
- Barquissau, N. D., Pett, T. L., & Fontan Sers, C. (2024). Can independent hotels survive? A case study of how technology changes the industry. *Journal of Business Strategy*, 45(1), 17–24. <https://doi.org/10.1108/JBS-10-2022-0178>
- Bhuiyan, M., Rahman, M. A., Hoque, A. B., Ashrafuzzaman, M., & Rahman, A. (2023). Advanced analytics and machine learning for revenue optimization in the hospitality industry: A comprehensive review of frameworks. *American Journal of Scholarly Research and Innovation*, 2(02), 52–74. <https://doi.org/10.63125/8xbkma40>
- Biswas, M., & Murray, J. (2024). The impact of education level on AI reliance, habit formation, and usage. *International Conference on Automation and Computing*. <https://doi.org/10.1109/ICAC61394.2024.10718860>
- Bronzin, T., Prole, B., Stipić, A., & Pap, K. (2021). Artificial Intelligence (AI) brings enhanced personalized user experience. *44th International Convention on Information, Communication and Electronic Technology (MIPRO)*, 1070-1075. <https://doi.org/10.23919/MIPRO52101.2021.9596938>
- Bulchand-Gidumal, J., William Secin, E., O'Connor, P., & Buhalis, D. (2023). Artificial intelligence's impact on hospitality and tourism marketing: Exploring key themes and addressing challenges. *Current Issues in Tourism*, 1–18. <https://doi.org/10.1080/13683500.2023.2229480>
- Buhalis, D. (2020). Technology in tourism from information communication technologies to eTourism and smart tourism towards ambient intelligence tourism: A perspective article. *Tourism Review*, 75(1), 267–272. <https://doi.org/10.1108/TR-06-2019-0258>

- Chi, O. H., Denton, G., & Gursoy, D. (2020). Artificially intelligent device use in service delivery: A systematic review, synthesis, and research agenda. *Journal of Hospitality Marketing & Management*, 29(7), 757–786. <https://doi.org/10.1080/19368623.2020.1721394>
- Cozzio, C., Santos Arteaga, F. J., & Maurer, O. (2025). Artificial intelligence adoption in hospitality: Challenges and opportunities across hierarchical levels. *Tourism Review*. <https://doi.org/10.1108/tr-10-2024-0913>
- Dela Cruz, L., Racelis, M., Agustin, V., Guialil, J., Hill, G., Mahusay, L., & Morano, J. (2024). An enhancement of the support vector machine in the context of sentiment analysis applied to scraped data from TripAdvisor hotel reviews. *International Journal of Computing Sciences Research*, 8, 3235–3251. <https://stepacademic.net/ijcsr/article/view/616>
- Department of Trade and Industry. (2023, October 6). *MSME statistics*. Department of Trade and Industry – Philippines. <https://www.dti.gov.ph/resources/msme-statistics>
- Department of Tourism. (2024, November 16). *Tourism demand statistics*. Department of Tourism – Philippines. http://www.tourism.gov.ph/tourism_dem_sup_pub.aspx
- Dianawati, N., Saepudin, P., Misran, M., Sinaga, E. K., Putra, F. K. K., & Susanto, E. (2024). The impact of smart hotel technology on guest satisfaction and loyalty: A user competency perspective. *African Journal of Hospitality, Tourism and Leisure*, 13(1), 213–220. <https://doi.org/10.46222/ajhtl.19770720.500>
- Espiloy, G. (2025). Smart hospitality in the age of AI: Impact of AI-driven personalization on guest satisfaction and loyalty in hotels. *Psychology and Education: A Multidisciplinary Journal*, 45(5), 584–592. <https://doi.org/10.70838/pemj.450502>
- Fadilah, N., & Andriani, N. (2025). Consumer preferences and decision-making in digital payments: A systematic review using the Technology Acceptance Model (TAM). *Asian Journal of Management Analytics*, 4(2), 1–15. <https://doi.org/10.55927/ajma.v4i2.14295>
- Gajić, T., Vukolić, D., & Knežević, S. (2024). Uređenje efikasnosti i personalizacije usluga putem primene veštačke inteligencije u hotelskoj industriji. *Ekonomist*, 3(2), 9–31. <https://doi.org/10.46793/EKONOMIST3.2.1G>
- Gajić, T., Petrović, M. D., Milanović Pešić, A., Conić, M., & Gligorijević, N. (2024). Innovative approaches in hotel management: Integrating artificial intelligence (AI) and the Internet of Things (IoT) to enhance operational efficiency and sustainability. *Sustainability*, 16(17), 7279. <https://doi.org/10.3390/su16177279>
- Gatera, A. (2024). Role of artificial intelligence in revenue management and pricing strategies in hotels. *Journal of Modern Hospitality*, 3(2), 14–25. <https://doi.org/10.47941/jmh.1957>
- Gupta, S., Modgil, S., Lee, C.-K., & Sivarajah, U. (2022). Artificial intelligence-enabled robots for stay experience in the hospitality industry in a smart city. *Industrial Management & Data Systems*, 122(10), 2331–2350. <https://doi.org/10.1108/imds-10-2021-0621>
- Gursoy, D., & Cai, R. (2025). *Artificial intelligence: An overview of research trends and future directions*. *International Journal of Contemporary Hospitality Management*, 37(1), 1–17. <https://doi.org/10.1108/IJCHM-03-2024-0322>

- Jamaluddin, Z., & Rahmat, A. K. (2022). Artificial intelligence technology in travel, tourism, and hospitality: Current and future developments. In *Technology Application in Aviation, Tourism and Hospitality: Recent Developments and Emerging Issues* (pp. 169–177). Springer. https://doi.org/10.1007/978-981-19-6619-4_12
- Kong, H., Yuan, Y., Baruch, Y., Bu, N., Jiang, X., & Wang, K. (2021). Influences of artificial intelligence (AI) awareness on career competency and job burnout. *International Journal of Contemporary Hospitality Management*, 33(2), 717-734. <https://doi.org/10.1108/IJCHM-07-2020-0789>
- Li, C., Ashraf, S. F., Amin, S., & Safdar, M. N. (2023). Consequence of resistance to change on AI readiness: Mediating–moderating role of task-oriented leadership and high-performance work system in the hospitality sector. *Sage Open*, 13(4). <https://doi.org/10.1177/21582440231217731>
- Makar, K. Š. (2023). Driven by Artificial Intelligence (AI)–Improving operational efficiency and competitiveness in business. In *2023 46th MIPRO ICT and Electronics Convention (MIPRO)* (pp. 1142-1147). IEEE. <https://doi.org/10.23919/mipro57284.2023.10159757>
- Mandić, D., Panić, A., & Čičin Šain, M. (2023). Automated service delivery in hotels: Balancing efficiency and human interaction for optimal guest satisfaction. *Conference Proceedings: ICEMIT*, 167–174. <https://doi.org/10.46793/icemit23.137m>
- Mapa, C. D. S. (2024, May 14). *Household Survey on Domestic Visitors (HSDV)*. Philippine Statistics Authority. <https://psa.gov.ph/statistics/household-survey-domestic-visitors>
- Mariani, M. M., & Borghi, M. (2023). Artificial intelligence in service industries: customers' assessment of service production and resilient service operations. *International Journal of Production Research*, 1–17. <https://doi.org/10.1080/00207543.2022.2160027>
- Oseni, A., Moustafa, N., Janicke, H., Liu, P., Tari, Z., & Vasilakos, A. (2020). Security and privacy for artificial intelligence: Opportunities and challenges. *Journal of ACM*, 37(4). <https://doi.org/10.1145/3372297>
- O'Toole, C., Schneider, J., Smaje, K., & LaBerge, L. (2020, October 5). *How COVID-19 has pushed companies over the technology tipping point and transformed business forever*. McKinsey & Company. <https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/how-covid-19-has-pushed-companies-over-the-technology-tipping-point-and-transformed-business-forever>
- Park, H., Jiang, S., Lee, O. K. D., & Chang, Y. (2024). Exploring the attractiveness of service robots in the hospitality industry: Analysis of online reviews. *Information Systems Frontiers*, 26(1), 41-61. <https://doi.org/10.1007/s10796-021-10207-8>
- Rasel, M., Islam, M., & Siddiqi, M. (2025). Artificial intelligence in sustainable tourism: Advancing efficiency and resource management in hospitality. *International Journal of Computing Sciences Research*, 9, 3859–3882. <https://stepacademic.net/ijcsr/article/view/710>
- Rauf, A., Zurcher, M., Pantelidis, I. S., & Winbladh, J. (2022). *Millennials' perceptions of artificial intelligence in hotel service encounters*. *Consumer Behavior in Tourism and Hospitality*, 17(1), 3–16. <https://doi.org/10.1108/CBTH-04-2021-0104>
- Rawal, Y. S., Soni, H., Dani, R., & Bagchi, P. (2022). A review on service delivery in tourism and hospitality industry through artificial intelligence. *Proceedings of the Third*

- International Conference on Computing, Communications, and Cyber-Security*, 427–436. https://doi.org/10.1007/978-981-19-1142-2_34
- Rosman, D., Wahyuningtias, D., Levyta, F., & Putra, E. D. (2023, May). *The deployment of service robots powered by artificial intelligence in five-star hotels: Does it influence the customer's booking intention?* In **2023 8th International Conference on Business and Industrial Research (ICBIR)**. <https://doi.org/10.1109/ICBIR57571.2023.10147705>
- Shin, H., Ryu, J., & Jo, Y. (2025). Navigating artificial intelligence adoption in hospitality and tourism: Managerial insights, workforce transformation, and a future research agenda. *International Journal of Hospitality Management*, 128, 104187. <https://doi.org/10.1016/j.ijhm.2025.104187>
- Talukder, M. B., Kabir, F., Muhsina, K., & Das, I. R. (2023). Emerging concepts of artificial intelligence in the hotel industry: A conceptual paper. *International Journal of Research Publication and Reviews*, 4(9), 1765–1769. <https://doi.org/10.55248/gengpi.4.923.92451>
- Usta, S. K. (2024). Cybersecurity risks analysis in the hospitality industry: A stakeholder perspective on sustainable service systems. *Systems*, 12(10), 397. <https://doi.org/10.3390/systems12100397>
- Wang, P. Q. (2024). Personalizing guest experience with generative AI in the hotel industry: There's more to it than meets a Kiwi's Eye. *Current Issues in Tourism*, 28(4), 527–544. <https://doi.org/10.1080/13683500.2023.2300030>
- Yang, H., Song, H., Cheung, C., & Guan, J. (2021). How to enhance hotel guests' acceptance and experience of smart hotel technology: An examination of visiting intentions. *International Journal of Hospitality Management*, 97, 103000. <https://doi.org/10.1016/j.ijhm.2021.103000>
- Zhang, X., Tavitiyaman, P., & Tsang, W. Y. (2022). Preferences of technology amenities, satisfaction, and behavioral intention: The perspective of hotel guests in Hong Kong. *Journal of Quality Assurance in Hospitality & Tourism*, 24(5), 545-575. <https://doi.org/10.1080/1528008X.2022.2070817>

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