Beyond the Chatbot: Practitioner Perspectives on AI Integration in Hospitality

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ABSTRACT
Artificial intelligence stands poised to revolutionize the hospitality sector, introducing advanced forecasting and automated operations. Nevertheless, integrating AI into an industry rooted in personal experience sparks significant tension between streamlining processes and sustaining authentic guest connections. Although existing literature outlines AI's potential advantages, practitioners continue to navigate ambiguity when reconciling these competing demands on the ground. To bridge this knowledge gap, this research analyzes the public discourse of hospitality executives, capturing field-level perspectives on the realities of AI adoption. The study maps the primary challenges inherent in AI integration and develops a governance framework to help hospitality firms steer the implementation process. For industry professionals, the findings deliver actionable guidelines that assist managers and developers in overseeing AI rollouts, ensuring that technological advancement alignment with service delivery.

Keywords: *Artificial Intelligence, Hospitality, Guest, Human-AI, AI Governance.*

1. INTRODUCTION

Artificial intelligence (AI) has emerged as a transformative force in hospitality, reshaping service delivery, customer experience, and organizational operations (Huang et al., 2024; Knani et al., 2022; Kong et al., 2022). At the same time, its deployment generates significant tensions and implementation challenges for the industry. Prior studies show that disclosing AI integration can reduce customers' cognitive and affective trust, perceived quality, and usage intentions, particularly in hedonic service contexts where customers are more sensitive to diminished interpersonal connection and warmth (Xu et al., 2024). More specifically, experimental evidence indicates that disclosing AI in hotel hedonic services significantly lowers cognitive trust, affective trust, perceived quality, and intention to adopt, whereas these effects are not significant in utilitarian services (Xu et al., 2024).

Research further suggests that replacing human staff with AI service providers can weaken perceived service warmth because customers attribute less mind, agency, and emotional capacity to AI, thereby undermining continued usage intention (Lee & Lu, 2024; Lv et al., 2025). From the employee perspective, frontline staff may also resist service robots depending on how these technologies align with workplace affordances and sociomaterial conditions, suggesting that AI adoption is not frictionless within hospitality organizations (Leung et al., 2023). In service recovery contexts, AI-driven agents face notable constraints in emotionally sensitive encounters. Studies on chatbot and robot apologies show that customers perceive machine-delivered recovery efforts as less sincere and less emotionally competent than those delivered by humans, which in turn reduces recovery satisfaction (Hu et al., 2021; Zhang et al., 2023). Related work on chatbot disclosure also demonstrates that implementation outcomes depend on how AI is introduced during the interaction. In high-contact services, pre-dialogue disclosure generates greater service satisfaction than post-dialogue disclosure, whereas the opposite pattern appears in low-contact services, with trust acting as the mediating mechanism (Yu et al., 2024).

More broadly, recent scholarship identifies persistent implementation dilemmas surrounding disclosure strategies, workforce alignment, anthropomorphic design, emotional sensitivity, and the preservation of hospitality's symbolic and relational value (Lee & Lu, 2024; Majeed et al., 2024; Wang et al., 2026). At the same time, not all findings are uniformly negative. Some studies indicate that customers' future use intentions are strengthened when AI services meet expectations, perform well, and generate enjoyment, suggesting that successful implementation depends not only on technological capability but also on how AI is experienced by users (Huang et al., 2024). This reinforces the idea that AI adoption in hospitality involves ongoing trade-offs between efficiency and experiential value, automation and warmth, and innovation and trust (Casaló et al., 2025; Chen & Prentice, 2025; Ng et al., 2026).

Despite these growing insights, existing scholarship has focused predominantly on consumer responses, employee adoption, and conceptual discussions of AI-enabled service design, while paying less attention to how hospitality practitioners themselves frame the contradictions of AI implementation (Chen & Prentice, 2025; Sigala et al., 2024; Wang et al., 2026). This study addresses that gap by analyzing public statements from hospitality leaders, thereby capturing industry-based perspectives on the practical challenges, tensions, and trade-offs associated with AI deployment in hospitality. By foregrounding practitioner discourse, the study extends current AI-in-hospitality research beyond experimental and conceptual approaches and offers a practice-oriented understanding of how the industry negotiates the promises and pitfalls of AI adoption (Chen & Prentice, 2025; Sigala et al., 2024; Wang et al., 2026).

2. METHOD

2.1. Data Sources

To gather primary qualitative data, this research drew upon open-access video content from YouTube, comprising 26 clips where global hospitality and travel experts discussed AI integration within their fields. The compiled English-language footage amounted to 15 hours, 7 minutes, and 54 seconds. Adhering to recognized qualitative methodologies for digital audiovisual data (Izharuddin, 2025; Mohammed et al., 2023; Patterson, 2018), the sampling procedure was dictated by four key parameters: (1) the breadth of the content, (2) clip duration, (3) strict inclusion and exclusion benchmarks, and (4) predetermined relevant audiovisual markers. Selection was strictly limited to videos where speakers affirmed their status as hospitality, hotel management, or travel technology practitioners and explicitly tackled AI applications. Because YouTube content is inherently fluid, rather than downloading the files, we compiled a systematic database of hyperlinks. This approach guaranteed reproducible access while respecting the creators' ongoing control over their digital property (Patterson, 2018).

2.2. Ethical Considerations and Researcher Positionality

Ethical Considerations and Researcher Positionality Despite the public availability of the video materials, we treated them as data artifacts carrying distinct ethical weight. In line with Patterson (2018) methodology, we acknowledged the blurred lines separating public and private digital realms, opting for a humanizing stance that placed creator dignity first. We elevated content creators to the status of informants, mindful of the power imbalance inherent in the researcher–data dynamic. To safeguard against unintended harm and honor shifting privacy norms, any identifying information (e.g., actual names and channel titles) was scrubbed from transcripts and analytical files (Mohammed et al., 2023; Patterson, 2018). Nonetheless, to maintain analytical transparency, URLs, publication dates, and video lengths were retained in our records. During the data collection and evaluation phases, reflexive journaling was employed to capture any interpretive biases, methodological choices, and the ethical complexities of analyzing public professional narratives. Consistent with Patterson (2018) call for reflexive engagement, the research team engaged in repeated cycles of viewing, transcribing, and reviewing the material, ensuring that both spoken words and visual cues shaped our foundational interpretations.

2.3. Data Analysis

To uncover and classify the friction points associated with AI rollout in the hospitality sector, a structured, tripartite analytical framework was applied. The first phase involved an inductive, line-by-line open coding of the expert transcripts and video interviews, which yielded 79 unique textual excerpts. Subsequently, these preliminary codes underwent deductive organization via semantic grouping, definitional alignment, and frequency counts to form broader categories. To bolster conceptual clarity and analytical rigor, the research team engaged in repeated cycles of refinement throughout the process (e.g., revisiting ambiguous excerpts, aligning categories across different groups, and conducting frequency-weighted checks).

3. FINDINGS

Through systematic standardization and cross-group mapping, fragmented tension statements were harmonized into a unified taxonomy tensions category. The resulting landscape reveals that AI deployment in finance is no longer a purely technological challenge, but a complex strategic balancing act where innovation, governance, infrastructure, and human capital intersect.

1. Content Automation & Distribution

This category covers how AI is being implemented to generate, optimize, and distribute hotel content at scale, moving away from manual SEO and copywriting.

Automating the content lifecycle

> *"You figure out how you're visible. Then you create content, and you have to automate the content. You cannot write content the way it was done even 6 months ago. We've figured out a way to completely automate it—from creation to publishing... to getting it indexed on AI engines."*

Workflow automation for content creation

> *"Not only did I find out how I'm ranking, but all I need to do is click that button, and it takes me to the content creation tool and populates everything. You don't need to do anything; it just creates the content."*

Training AI for brand voice and scaling

> *"You create the exact template for that website... You train it on their brand voice, so the website content it creates is almost identical to the brand... it produces content to perfection... Now, the brand is able to scale to 3,000 hotels at a much lesser cost."*

Content distribution via API

> *"Property View HCMS (Hospitality Content Management System). It allows hotels to store descriptions, images, and content in our system and use us to distribute it to third-party partners via API."*

2. Guest-Facing AI Agents & Chatbots

This category includes implementations where AI interacts directly with guests to answer questions, plan trips, and drive direct bookings.

Semantic chunking for accurate chatbots

> *"You take the data, chunk it / vectorize it, and store it in a form where AI agents can actually grab the information that exists in your data. That is what creates the experience."*

Trip planning and conversion

> *"Top Use Case: Trip planning. 'I'm going from Boston to Atlanta, give me resorts along the way.' That is what it's doing... We've seen a 56% increase in conversion rate on the traffic that actually sees the AI agent."*

Voice and text AI for reservations and requests

> *"Engage, our voice, text, and chat AI... plugs into Property View... Engage pulls that data to answer queries and make reservations. We can even integrate into internal systems: if a guest calls down in the middle of the night for towels, Engage can answer, send a ticket to the internal system, and housekeeping fulfills the order."*

3. F&B Order Taking & Service Delivery

This category focuses on the specific implementation of AI "employees" to handle food and beverage orders, integrating conversational AI with deterministic POS systems.

Translating conversation to structured POS data

> *"The hardest part is being able to translate the non-deterministic world of human conversations and LLMs into structured information so that you can feed it to deterministic systems."*

End-to-end WhatsApp ordering

> *"You open WhatsApp... say, 'Hey, I want to make an order.' The agent starts talking and guiding you... As you chat, the agent builds the order... checks stock... asks if it's for takeaway or delivery... generates a payment link sent right through WhatsApp."*

In-hotel F&B service

> *"If I'm sitting by the pool and I need a margarita, I'm okay with ordering from an AI! We're looking to place this technology in the middle, between humans."*

4. Operational Efficiency & Back-Office Automation

This category highlights how AI is implemented behind the scenes to save time, audit data, manage reputations, and surface insights.

Automating hotel onboarding

> *"Onboarding: It used to take us 2 weeks to get information from a hotel... Now, we're doing this in 5 minutes. It's automated—it goes out, grabs all the information, and presents it."*

AI-driven analytics insights

> *"Hotels have a very hard time understanding the data analytics we give them. So now we've started giving them AI insights: why their numbers went up, why they went down, what marketing they can switch."*

Auditing third-party data with ML

> *"We use machine learning in our product Property View to map a hotel's source of truth across third-party channels, audit and score it for accuracy, tell them what's wrong, and help them update it."*

Automating review responses

> *"Manage their guest review responses with our Reputation AI platform. The AI generates responses, the hotel approves and publishes them, and it's saving one hotel in Washington D.C. about 20 hours a week."*

5. Implementation Strategy & Architecture

This category outlines the *methodology* of implementing AI successfully in hospitality, focusing on trust, data governance, and technical architecture.

Phased rollout for trust

> *"A phased approach to trust: They are a public brand, very unforgiving. So we launched with 2% of the traffic. For 1 month, we had just 2% routed. Once confidence was built, we increased to 10%. Right now, it's at 25%."*

Governance and data fixing first

> *"Fix the data: Is your information correct? Can you update and audit it to ensure consistency across your website and third-party channels? Activate for guest engagement: Plug the AI into that governed, accurate source of truth."*

Using Agent Tools for speed

> *"We decided to use Agent Tools rather than MCP or basic RAG. Tools are the fastest, most efficient way for the agent to interact. With tools, the agent just calls a function, and the tools are already described in the prompt."*

Parallel processing for real-time speed

> *"The main challenge was figuring out which parts could be parallelized... If you're ordering multiple products, the agent can search for all of them at the same time instead of one by one."*

4. CONTRIBUTIONS AND IMPLICATIONS

4.1. Theoretical

This research offers three primary contributions to theory. First, it extends hospitality AI scholarship by shifting attention from standalone, prescriptive chatbot interactions toward AI as an embedded operational capability that supports deeper and more automated service workflows, thereby answering recent calls to move beyond narrow adoption models and examine implementation-oriented AI integration in hospitality settings (Chen & Prentice, 2025; Sigala et al., 2024). Second, it contributes to the emerging literature on human–AI service systems by theorizing that successful AI implementation depends not only on customer-facing design attributes, but also on foundational organizational conditions (i.e., data governance, phased rollout logics, and architectural agility) which enable firms to translate AI potential into reliable service delivery across interconnected hospitality systems (Doborjeh et al., 2021; Wang et al., 2026). Third, it advances current understandings of AI-enabled hospitality by explaining how parallel

processing and agent-based tools can bridge the long-standing tension between natural human conversation and the rigid structures of operational systems such as POS and PMS, thus offering a more processual and infrastructural view of AI deployment than prior studies focused primarily on acceptance, warmth, competence, or disclosure effects (Casaló et al., 2025; Ng et al., 2026; Xu et al., 2024).

4.1. Managerial

This study also shares managerial insights for practitioners. First, this study recommends to prioritize data governance as a prerequisite for AI activation. Before deploying guest-facing AI agents or chatbots, hospitality managers must ensure their foundational data is accurate and unified across all channels (e.g., website, OTAs, internal PMS), since AI is only as effective as the data it retrieves. Second, this study insights to adopt a phased rollout strategy to build internal and external trust. Given the high stakes of brand reputation in hospitality, managers should avoid big-bang AI deployments. Third, managers may implement AI agent tools that can translate unstructured guest conversations into structured data that the POS or PMS can execute. This prevents the frustration of a conversational AI that can chat but cannot actually fulfill a service request. Fourth, strategically position AI between full automation and human touchpoints. AI deployment does not have to be an all-or-nothing replacement of human staff. Managers should deploy AI for high-volume, low-emotion tasks (e.g., poolside F&B ordering, automated review responses, routine onboarding) to free up human employees for high-empathy interactions, such as complex service recovery or personalized guest greetings.

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