


Chapter 17


Unrivaled Hospitality Intelligence: Redefining Guest Experiences Through Innovation

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ABSTRACT

The hospitality sector is currently going through a dramatic transformation, which is being pushed by several technological breakthroughs as well as the ever-changing expectations of guests. The chapter investigates how cutting-edge technologies like Artificial Intelligence, the Internet of Things, and data analytics are redefining the experience guests have when they visit a hotel. The study explores the incorporation of intelligent hospitality systems, personalized services, and environmentally responsible practices, emphasizing these elements' role in producing memorable customer experiences, inspiring innovation, and flourishing in a competitive environment. This

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chapter provides a road map to reaching unprecedented levels of customer satisfaction, ranging from predictive analytics of guest behavior to operational efficiency powered by artificial intelligence. This work aims to serve as both a practical guide and a visionary examination of how innovation might redefine hospitality excellence in the modern day. It is designed for industry leaders, academics, and students.

INTRODUCTION

Meeting and exceeding guests' expectations has always driven the hospitality industry's position at the forefront of innovation. In an era where technology influences nearly every aspect of everyday life, those working in the hospitality industry face challenges and opportunities that have never been encountered before. According to Kim et al. (2021), the incorporation of cutting-edge technologies, such as AI, the IoT, and big data analytics, is causing a transformation in the way services are planned, delivered, and experienced. This development represents a paradigm shift away from conventional hospitality approaches used in the past and toward an approach driven by technology and intelligence, emphasising personalization, efficiency, and sustainability.

The guest's experience is the most essential factor in the hospitality industry. All contact points between guests and service providers are included in its scope, beginning with the booking and check-in processes and continuing through the post-stay communication. According to Chathoth et al. (2020a), guests in today's fast-paced environment expect experiences that are seamless, customised, and memorable, aligning with their tastes and values. To meet these expectations, hospitality firms must use cutting-edge technologies and frameworks that enable real-time decision-making, predictive analytics, and improved service delivery (Talukder, 2025). If technology is utilised efficiently, it can reimagine guests' journeys and produce unmatched delight.

The Role of Technology in Redefining Hospitality

Technological improvements have affected Traditional business models across many industries, and the hotel industry is no exception. According to Ivano, Webster, and Garenko (2019), AI and machine learning algorithms transform operations by enabling the predictive analysis of visitor behaviour and preferences (Talukder & Kumar, 2024). Chatbots and virtual assistants driven by artificial intelligence, for instance, offer quick and round-the-clock customer care, ensuring that guests receive prompt solutions to their concerns. According to Jiang, Gretzel, and Xiang (2022), *IoT* technologies, including voice-activated room controls and smart thermostats,

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