



Chapter 13

Artificial Intelligence for Innovative Customer Services in the Hospitality Industry of India

Lakhvinder Singh

 <https://orcid.org/0000-0002-0778-1132>
Government College, Kaithal, India

Dinesh Dhankhar

 <https://orcid.org/0009-0009-7052-0937>
Kurukshetra University, India

ABSTRACT

Artificial intelligence (AI) is a new technology that has been applied in tourism and hospitality businesses to enhance customer experiences. In hospitality industry, there have been researches about AI applications, yet it is not widely applied in hotels in Indian aspect. Therefore, the purpose of this chapter is to identify the customer experience from use of AI in hotels in India. The research methodology used in the study was quantitative research with field survey. The target respondents were contacted in national capital region (NCR) of India for data collection. The survey results came out quite surprising with differing opinions of respondents. Most respondents agreed that applying AI is a modern trend to follow. Some of the important points to respondents were always-on service, fast access to service and cleanliness. Many respondents would prefer to interact with employees more than AI machines. Due to the wide knowledge of AI and limitation of the research, further research should be done to gain better perspectives on AI approaches in hotels.

1. INTRODUCTION

The advent of new technologies has consistently sparked global revolutions, and in our technology-driven era, Artificial Intelligence (AI) stands out as a particularly brilliant innovation, revolutionizing different businesses (Krishnan et al., 2022). The adoption of AI has seen a substantial rise across diverse

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industries, and from 2021 to 2022, the AI software market is projected to undergo substantial growth, with expectations of nearly doubling in size 50% and expected to rise within the next few years (Liu, 2020). The global market observed the growth in the area of AI (Limna et al., 2021) and because of the growth of advance technologies, the concept of AI has evolved tremendously over the years, and in the 21st century, it has reached its zenith. Consequently, AI has become ubiquitous in various industries, including healthcare, education, marketing, public relations, small businesses, and even the tourism sector. Resultantly, innovative AI technologies such as point of sale (POS), Facebook Ads, LINE Ads, virtual assistant, geo-location services, Smartphone applications (Manigandan & Raghuram, 2022) were extensively used in business operations by firms.

The economic success of numerous countries hinges significantly on the hospitality industry, which encompasses the art of welcoming and entertaining customers, as indicated by Naumov in 2019. This diverse sector includes hotels, tourism, food and beverage establishments, as well as meeting and event services, as noted by Sisson and Adams in 2013. Given that the foundation of the hospitality industry is built upon the provision of services, its vitality is closely tied to the way it is presented and evaluated by customers about level of service quality. Alongside, the emergence of AI is developed as a strategy to support human intelligence level to reduce work pressure in businesses more particularly service sectors like hospitality and tourism (Manigandan & Raghuram, 2012).

In the present era, the hospitality industry contends with an exceedingly competitive situation and thus constantly evolving to meet the needs of its customers, which is saturated with new technology such as AI to serve as a source of innovation to deliver superior service and improved corporate performance in a cost effective manner (Ivanov & Webster 2017). Furthermore, the recent increase in use of AI in hotel operations carried out to deliver personalized products & services to guests to achieve better service quality to its consumers (Kumar et al., 2021; Goel et al., 2022).

The emergence of AI would be a paradigm shift for hospitality industry and some of the players apply it in its business operations. For instance, Hilton, Inter Continental and Yotel Hotels brands are using robotic technology to improve business activities (Tables, 2019). Ting (2017) in a study discovered that, “the famous hotel brand Hilton has been investing and applying mobile app technology for recent years including digital key for accessing and offering loyalty members the capability of choosing their own rooms while checking in with the app (Ting 2017).” Cadell (2019) in respect of “Flyzoo Hotel” in Hangzhou of China noticed the use of AI in hotel check-in through facial recognition and smartphone apps assisting guests to control in-room features like lighting and water temperature to the presence of robot waiters in hotel restaurants, AI plays a central role in solving various processes within the hospitality industry. Similar to this, Tiwari (2019) in a study detected the use of AI for in-room applications. Additionally, AI in hotel can be used to overcome language barriers, personalize hotel experiences to individual guest preferences and overall influence the guest’s loyalty towards the respective hotel.

Leveraging AI effectively to provide customer services in the hotel industry stands as the prime method for hotels to establish and enhance their brand value, boost bookings, and drive revenue growth. Numerous prominent hotel chains, as previously mentioned, along with industry experts, have observed the rising appeal of service-oriented hotels, underpinned by their lifelike AI-powered offerings (Chi et al., 2020). Sufficient literature focused on the use of AI in hospitality business all over the world (Rampersad, 2020; Koo et al., 2021), however, use of AI to enhance customer experience in hospitality is not frequently investigated (except few such as Lee et al., 2021). More, so, no specific study has been conducted to know application of AI to improve customer service in respect of Indian hospitality sector. Hence, there exists a research gap from guests’ perspective towards implementation of AI in hospital-

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