Chapter 15
AI-Driven Transformation in the Hospitality Industry Enhancing Guest Services and Operational Performance: A Review of Literature

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ABSTRACT

The study analyses the role played by artificial intelligence (AI) in improving experience of consumers and operational efficiency at hospitality industry. In concern, it is identified that the hospitality industry operating through traditional approaches face certain issues like that of security in data recording, cash flow management and so on that requires an advanced technological implementation for generating successive outcomes. In relation, the varied benefit of AI in eliminating existing issues at the hospitality firms and generating operational efficiency is evaluated where market trends and other aspects are achieved by AI application to better manage the business through technological concerns. Simultaneously, it is observed that AI application in the specific industry generates problem of accountability,

DOI: 10.4018/979-8-3373-4042-5.ch015

high cost, liability and so on that requires proper improvement. In responses, recommendations like adaptation of lean management approach, and so on are cited for improving application of AI in hospitality industry for generating the desired outcomes respectively.

INTRODUCTION

The latest computer technology is artificial intelligence, which utilises human intelligence in performing activities to ensure an automatic decision-making process (Korteling et al., 2021). In this regard, AI is the combination of various technologies that allows running complicated procedures by independently evaluating the orders of humans. The hospitality industry is a broad term defined to include dining, accommodation, tourism, and event management, among other various forms of services aimed at satisfying people most efficiently. This paper will discuss the role of AI in the hospitality industry as a method of adding ability in efficiency and overall customer experiences. To comprehend the circumstances and problems of the sphere today, the notion of the hospitality sphere and the importance of the involvement of the customer in this sphere are addressed. The role of AI and its importance are presented in the attempt to evaluate how it contributes towards enhancing operations and consumer experiences within the hospitality industry.

In the past two decades, the hospitality industry in the world has metamorphosed tremendously due to the emergence of new convenient and comfortable technologies, evolving customer preferences and competitive environments among other activities. The application of technology in the hospitality industry is not viewed by the World Travel and Tourism Council (WTTC, 2023) as optional any more, which is seen as a survival measure and a growth tool. It has been driven by artificial intelligence, which has enabled institutions to offer services that are faster, more personalised and culminate in effective operations. More than performing monotonous tasks, AI enables companies with decision-making power by providing predictive analytics, which lets hotels surmise the required expectations and align their resources in the process (Gretzel et al., 2015). This makes sense with the larger industry transition towards service approaches that are experience-based, where loyalty and enjoyment of guests are driven by the ability to provide flawless, personalised interactions throughout the customer experience. In the past, hospitality businesses largely depended on manual management of the processes, including check-ins, handwritten concierge services and paper reservations. On the one hand, these practices promoted personal interaction, but on the other hand, it inhibited scalability, consistency, and operational efficiency (Ivanov & Webster, 2019). These limitations have been resolved with the introduction of AI-powered systems that incorporate such