

# Chapter 13

## Customer Retention in the Hospitality Sector: A Glimpse into Industry 4.0 Through AI Lens

**Beenish Shameem**

 <https://orcid.org/0000-0002-2511-8393>

City University, Ajman, UAE

### **ABSTRACT**

*In the context of dynamic changes in the hospitality industry, the issue of customer loyalty remains one of the primary cornerstones of business continuity. In light of the emergence of the industry's 4.0 concepts, this study aims to identify new tendencies in the paradigm of customer retention and how AI technologies contribute to those changes. Industry 4.0 can be described as the fourth interrelated transformation and is characterized by the integration of digital technologies, AI, and advanced automation impacting operational models across industries including hospitality. Machine Learning, one of the branches of AI, has the capability of handling large amounts of customer data for Analysis, Modelling, and Personalization reducing time, cost, and efforts in improving customer engagement and loyalty. Further, using AI in the form of virtual products such as chatbots and virtual assistants, they continue to provide consistent and efficient services to the customers hence supporting the causes of customer retention.*

DOI: 10.4018/979-8-3693-6562-5.ch013

## INTRODUCTION

AI-driven data analytics has completely changed how hotels interact and comprehend their visitors. AI-powered data analytics have tremendously changed the way hotels communicate with and perceive their guests. Hotels employ different data types to understand booking history, behavioral patterns, and guest preferences. Hotels create personalized loyalty programs and rewards that address particular requirements and preferences of particular customers or groups of customers. Digitization and the era of artificial intelligence have paved a path for the hospitality industry to perform better and serve customers to achieve new levels of customer satisfaction. AI has opened new doors in the hospitality industry to serve customers/visitors better and better than ever before. Businesses are already moving away from automated systems that rely solely on rules, like chatbots to gain a competitive edge. Instead, they are deploying sophisticated cognitive agents that can manage large amounts of data, interact with people more naturally, and learn from their mistakes over time.

With the integration of AI technology, cutting-edge property management systems, and tremendous analytics tools, the sector can offer a range of curated services having better value, and more unforgettable experiences for visitors. Massive volumes of data, including preferences, actions, and feedback from customers, can be processed by intelligent cognitive agents to provide specialized services and recommendations. These representatives can improve the entire visitor experience by better understanding and responding to consumer inquiries more naturally. The application of AI in hospitality can undoubtedly improve customer service, but it goes beyond visitor interactions. It can also improve numerous operational areas like revenue management, inventory control, and resource allocation.

It will empower hotels to make data-driven decisions, optimize pricing strategies, and effectively allocate resources to maximize revenue. Asset utilization, resource allocation, and yield management can be done effectively. Customers today expect round-the-clock availability and immediate responses. AI-powered chatbots and virtual assistants enable organizations to deliver 24/7 support, handling client inquiries and issues in real time. This prompt reaction increases customer satisfaction and can be a deciding factor in customer retention. AI-powered chatbots are used to give customer care in multiple time zones. Notwithstanding the time difference, the AI chatbot converses with the customer, responds to their questions, and even starts the return procedure.

20 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: [www.igi-global.com/chapter/customer-retention-in-the-hospitality-sector/364084](http://www.igi-global.com/chapter/customer-retention-in-the-hospitality-sector/364084)

## Related Content

---

### Online Gambling Advertising and the Third-Person Effect: A Pilot Study

Frederic Guerrero-Solé, Hibai Lopez-Gonzalez and Mark D. Griffiths (2017). *International Journal of Cyber Behavior, Psychology and Learning* (pp. 15-30). [www.irma-international.org/article/online-gambling-advertising-and-the-third-person-effect/182839](http://www.irma-international.org/article/online-gambling-advertising-and-the-third-person-effect/182839)

### The Relation of Gender, Behavior, and Intimacy Development on Level of Facebook Addiction in Emerging Adults

Melanie Kimpton, Marilyn Campbell, Eliza Leong Weigin, Alexandria Orel, Kelly Wozencroft and Chrystal Whiteford (2016). *International Journal of Cyber Behavior, Psychology and Learning* (pp. 56-67). [www.irma-international.org/article/the-relation-of-gender-behavior-and-intimacy-development-on-level-of-facebook-addiction-in-emerging-adults/158158](http://www.irma-international.org/article/the-relation-of-gender-behavior-and-intimacy-development-on-level-of-facebook-addiction-in-emerging-adults/158158)

### The Impact of Sociocultural Factors in Multicultural Communication Environments: A Case Example from an Australian University's Provision of Distance Education in the Global Classroom

A. Ragusa (2007). *Linguistic and Cultural Online Communication Issues in the Global Age* (pp. 306-327). [www.irma-international.org/chapter/impact-sociocultural-factors-multicultural-communication/25577](http://www.irma-international.org/chapter/impact-sociocultural-factors-multicultural-communication/25577)

### Collaborative Student Groups and Critical Thinking in an Online Basic Communication Course

Roy Schwartzman and Megan Morrissey (2010). *Cases on Online Discussion and Interaction: Experiences and Outcomes* (pp. 39-65). [www.irma-international.org/chapter/collaborative-student-groups-critical-thinking/43657](http://www.irma-international.org/chapter/collaborative-student-groups-critical-thinking/43657)

### Workplace Cyberbullying and Its Impact on Productivity

Karthikeyan C. (2022). *Research Anthology on Combating Cyber-Aggression and Online Negativity* (pp. 1498-1515). [www.irma-international.org/chapter/workplace-cyberbullying-and-its-impact-on-productivity/301703](http://www.irma-international.org/chapter/workplace-cyberbullying-and-its-impact-on-productivity/301703)