

# Virtual Horizons: The Metaverse's Role in Transforming the Hospitality Industry

**Carimo Rassal**

*University of Algarve, Portugal & CIDEHUS, University of Évora, Portugal*

**Joana Carneiro**

*University of Algarve, Portugal*

## **ABSTRACT**

*This article examines the transformative impact of the Metaverse on the hospitality industry, with a focus on service quality as perceived by Generation Z and interpreted by Portuguese hospitality professionals. Drawing on quantitative data from two surveys, the article examines expectations, perceived benefits, and implementation challenges associated with immersive technologies. The analysis highlights a strong conceptual alignment between Generation Z's digital preferences and the experiential affordances of the Metaverse, contrasted with industry professionals' concerns around cost, infrastructure, and digital fluency. The study expands traditional service quality frameworks to include immersive dimensions such as emotional engagement and avatar-mediated interaction, offering both theoretical and practical insights. It concludes with strategic recommendations for sustainable adoption, emphasizing the importance of training, infrastructure, and ethical governance.*

## **INTRODUCTION**

The hospitality industry is undergoing a profound transformation, shaped not only by socio-economic and environmental pressures but also by the accelerated evolution of digital technology (Kumar *et al.*, 2024). Over the past two decades, the convergence of cloud computing, mobile connectivity, artificial intelligence (AI), and user-generated content has gradually reshaped the service delivery landscape in tourism and hospitality (Jia *et al.*, 2025). From the digitization of booking systems to the proliferation of online reviews and the integration of innovative hotel technologies, the industry has continuously adapted to meet the expectations of increasingly connected and tech-savvy guests (Thakur *et al.*, 2025). However, a new paradigm is emerging, one that extends beyond the digitization of services and moves

DOI: 10.4018/406751

toward their full virtualization (Jogarao, 2024). This paradigm is embodied in the concept of the Metaverse, which has the potential to influence how hospitality experiences are designed, delivered, and consumed.

The Metaverse is often defined as a persistent, immersive, three-dimensional digital environment (Hadi *et al.*, 2024), where users can interact through avatars, engage with virtual content, and co-create experiences in real-time. Enabled by virtual reality (VR), augmented reality (AR), artificial intelligence (AI), blockchain infrastructures, and Web 3.0 protocols, the Metaverse offers more than just a novel channel for entertainment (Wang *et al.*, 2025). It represents a structural rethinking of experience-based economies, reshaping how value is generated and perceived (Dulloo & Struweg, 2025). In the context of hospitality, where service intangibility, personalization, and emotional engagement define competitive advantage, the Metaverse could reconfigure service encounters. Early applications suggest opportunities for pre-consumption simulations, gamified loyalty programs, AI-powered virtual concierges, and virtualized hotel and resort environments that aim to create immersive sensory experiences.

This technological shift has not developed in isolation. The COVID-19 pandemic significantly accelerated the adoption of digital solutions across service sectors (Santarsiero *et al.*, 2024). Confronted with mobility restrictions, public health concerns, and fluctuating demand, hospitality operators worldwide were compelled to experiment with contactless service models, digital check-ins, virtual support platforms, and remote engagement tools. These adaptations laid the groundwork for more ambitious digital strategies, positioning the Metaverse not only as a futuristic vision but also as a potential component of business continuity, service innovation, and operational resilience.

Central to this transformation is Generation Z, born between 1995 and 2010, which is poised to become the dominant consumer and workforce segment in the coming decades (Ochis, 2024). Characterized by their digital nativity and fluency in immersive technologies, Generation Z has grown up in a world of smartphones, high-speed internet, social media, and interactive gaming. Their expectations are shaped by immediacy, personalization, authenticity, and shared experience. As consumers, employees, and co-creators, their perspectives on Metaverse adoption are essential to forecasting how service quality may evolve in the hospitality sector (Aksakal & Ulucan, 2024). Comparable patterns can also be observed in markets such as the United States and South Korea, where younger generations are actively experimenting with digital twins and immersive travel experiences, suggesting a global trend rather than a purely national one.

Despite growing discourse, empirical research into the concrete implications of the Metaverse for hospitality service quality remains limited (Issac *et al.*, 2025). Existing studies often emphasize conceptual frameworks or technological development, while the perspectives of actual users and industry professionals are less explored (Ashton *et al.*, 2025). This gap risks creating a misalignment between consumer expectations and provider capabilities, with potential consequences for resource allocation, return on investment, and guest satisfaction.

This chapter aims to address these challenges by examining the perceived role of the Metaverse in transforming service quality in the hospitality industry. It focuses on Generation Z consumers and hospitality professionals in Portugal, while drawing on global insights to contextualize the findings. The analysis integrates user expectations with managerial perspectives through two structured surveys: one with 246 Generation Z respondents and another with more than 90 hospitality professionals. The objectives are fourfold: to synthesize the literature on the Metaverse and its relevance to service innovation in hospitality, to reconceptualize service quality in light of immersive environments, to present empirical data that illustrates consumer and professional perspectives, and to provide actionable recommendations for industry stakeholders.

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/virtual-horizons/406751](http://www.igi-global.com/chapter/virtual-horizons/406751)

## Related Content

---

### AI and Health: Hopes and Fears

Riffat Shaheen and Hira Salim (2025). *Intersection of Human Rights and AI in Healthcare* (pp. 233-252).

[www.irma-international.org/chapter/ai-and-health/365868](http://www.irma-international.org/chapter/ai-and-health/365868)

### Content Based Search Engine for Historical Calligraphy Images

Xiafen Zhang and Vijayan Sugumaran (2014). *International Journal of Intelligent Information Technologies* (pp. 1-18).

[www.irma-international.org/article/content-based-search-engine-for-historical-calligraphy-images/116740](http://www.irma-international.org/article/content-based-search-engine-for-historical-calligraphy-images/116740)

### From Logic Specification to $\gamma$ -calculus: A Method for Designing Multiagent Systems

Hong Lin (2007). *International Journal of Intelligent Information Technologies* (pp. 21-40).

[www.irma-international.org/article/logic-specification-calculus/2421](http://www.irma-international.org/article/logic-specification-calculus/2421)

### AI in Health and Safety Management for Real Estate 4.0

Soumi Majumder (2022). *International Journal of Ambient Computing and Intelligence* (pp. 1-18).

[www.irma-international.org/article/ai-in-health-and-safety-management-for-real-estate-40/311061](http://www.irma-international.org/article/ai-in-health-and-safety-management-for-real-estate-40/311061)

### Model Framework for Discovering and Utilizing Public Opinion Hot Topic Knowledge in the Social Media Network Environment

Yun Liu (2025). *International Journal of Intelligent Information Technologies* (pp. 1-25).

[www.irma-international.org/article/model-framework-for-discovering-and-utilizing-public-opinion-hot-topic-knowledge-in-the-social-media-network-environment/372074](http://www.irma-international.org/article/model-framework-for-discovering-and-utilizing-public-opinion-hot-topic-knowledge-in-the-social-media-network-environment/372074)