

Chapter 15

Augmented Reality (AR) Dining Experiences Transforming Customer Engagement and Interaction

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ABSTRACT

This study investigates the transformative impact of Augmented Reality (AR) on dining experiences and customer engagement. By assessing AR's influence on customer engagement metrics and satisfaction levels, analyzing demographic variations, exploring behavioural changes, and identifying implementation challenges, the research aims to provide a comprehensive understanding of AR dining experiences. The results indicate significant enhancements in customer engagement, satisfaction, and healthier dining behaviours post-AR implementation, particularly among younger customers. Future guidelines emphasize continuous innovation in visual and interactive elements, personalization, robust technical integration, and regular feedback collection to maintain and enhance AR dining experiences.

INTRODUCTION

The world has seen a rapid advancement in technology that has altered people's lifestyles. Because of the differences in improvement brought about by the advancement, the pace and scope of this transformation have an impact on numerous industries and nations. The adoption of specific technologies may generally influence the production efficiency of manufacturing processes in the industry. Industrial Revolution 4.0 has the potential to accomplish notable improvements in product development and service innovation. According to Schwab (2016), there are four primary ways that the Fourth Industrial Revolution affects

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businesses: through improving products, collaborating on innovative ideas, influencing organizational structures, and raising customer expectations(Che Ishak et al., 2021).

The emergence of augmented reality (AR) technology has brought about a revolutionary shift in the food and beverage industry in recent years. AR has improved brand-consumer interactions and changed the way businesses operate, from interactive menus to compelling marketing campaigns. This article examines the various ways that augmented reality (AR) is affecting the food and drink industry, giving a thorough rundown of its advantages and uses(*Augmented Reality in the Food and Drink Industry - BrandXR*, 2024). Augmented Reality (AR) enhances our sensory perception by adding computer-generated information to the real world. Digital elements are superimposed onto the real world via gadgets like AR glasses or smartphones. When dining, this could entail seeing animated menu items, interacting with virtual wait staff, or even just visualizing the menu while seated at a real restaurant table(*Augmented and Virtual Reality*, 2024). Extended reality technologies are being used by numerous businesses in a variety of industries to improve the customer experience(S. J. Yadav, 2024b). In the restaurant business, restaurateurs are becoming more interested in digital technologies to enhance the dining experiences of their patrons and, consequently, their general health. This study investigates whether or not augmented reality (AR) technology improves a customer's dining experience through an exploratory analysis employing a qualitative multi-method approach(Batat, 2021). Innovative practices are nothing new to the restaurant industry. Handwritten menus have given way to digital tablets, and conventional kitchens have given way to state-of-the-art culinary labs. However, augmented reality (AR) and virtual reality (VR) represent the newest frontier in the world of dining experiences. With the promise of providing audiences everywhere with a singular and remarkable culinary experience, these immersive technologies are completely changing the way we eat. With VR headsets or AR glasses, users can also explore the rich world of food in an aesthetically pleasing and captivating way(*Augmented and Virtual Reality*, 2024). Everyone wants to eat tasty and healthful food in the Age of the Food Taster. The food's quality and its ingredients are the primary issues. In light of this, augmented reality provides a way to combine digital data with the physical world or an interactive experience. By superimposing virtual images on real ones, it improves the user's experience and understanding of interacting with the physical environment. It is a novel approach to controlling our interactions with the outside world. Furthermore, augmented reality has been shown in a number of industries today, including industry, education, aviation, and entertainment(Doan, n.d.).

The idea of experience marketing, which focuses on studying the customer's experiences, has replaced the functional features of the product or service and the benefits it will provide to the consumer due to the impact of the postmodern process, drastic changes in consumer preferences, and growing competition. This has prompted the food and beverage sector to innovate by utilizing science and technology services to create exceptional and one-of-a-kind dining and drinking experiences(Çöl et al., 2023). Since taste, smell, and touch are three of the most important senses in the food and beverage industry, there has been an increasing interest in whether technology, which has been primarily focused on visual production, can be applied there. As a result, tremendous efforts have been made to integrate technology developments into the field of gastronomy(Çöl et al., 2023). AR is a promising technology for customer engagement because of its advantages in terms of customer engagement, immersion, and attention(Ali, 2022). A system that can comprehend and serve people's needs more effectively than it currently does is needed in the modern world. The restaurant business is searching for apps that will boost revenue and enhance the dining experience. The holographic menu will completely change how diners enjoy their meals(Prathibanandhi et al., 2022). In order to foster positive attitudes toward augmented reality in the

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