

Chapter 7

Understanding Customers' Intentions to Use Digital Dental Health Services: An Expanded Technology Acceptance Model

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ABSTRACT

This study extends the technology acceptance model (TAM) by integrating additional variables—attitudes and social media influence—to explore the factors affecting customers' intentions to use digital dental health services in Algeria. Utilizing a

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convenience sampling method, the research gathered 136 valid responses through a structured questionnaire. The analysis revealed that customers' intentions are significantly influenced by four key factors: perceived ease of use, perceived usefulness, attitudes, and social media. These findings underscore the importance of not only technological perceptions but also social and psychological elements in promoting the adoption of digital dental care. The study contributes to a deeper understanding of customer behavior in the context of digital health services, offering valuable insights for practitioners and policymakers aiming to enhance the acceptance of such innovations.

INTRODUCTION

The healthcare landscape is undergoing rapid transformation, driven by technological advancements that are reshaping patient care and health service delivery (Martínez Asanza, 2024a; Mouloudj et al., 2024). A key shift is the growing emphasis on a patient-centered approach, transitioning away from a traditional focus on disease treatment toward prioritizing the needs and preferences of patients (customers) (Park et al., 2021). Companies that function on e-commerce platforms continuously seek innovative strategies to attract, retain, and encourage customer interaction with their products and brands (Teixeira & Nunes, 2024; Tien Minh et al., 2023). Mechta et al. (2024) demonstrate that a strong focus on key customers positively impacts an organization's reputation. Moreover, mobile health systems and applications can play a key role in enhancing the delivery of an effective healthcare system (Köse, 2023; Martínez Asanza, 2024b; Mensah, 2022). Customer satisfaction—often shaped by factors such as effective doctor-customer communication, reliability, and the tangible aspects of services, is increasingly critical in the modern healthcare environment (Park et al., 2021). At the same time, the integration of information and communication technologies (ICT) is revolutionizing healthcare practices, enhancing the quality of care, and improving access to medical services (Bahanan & Alsharif, 2023; Mouloudj et al., 2024). To fully adopt technology and transition to a digital model, hospitals must undergo a fundamental transformation in both business practices and management, integrating technology at every level (Piccolo, 2024).

Indeed, the adoption of digital tools such as teledentistry, artificial intelligence, dental health apps, and “digital communication platforms” offer innovative solutions to many challenges (Dimitrova & Kazakova, 2024), especially as customers increasingly seek convenient, efficient ways to manage their oral health. One of the most significant innovations in healthcare delivery is the rise of digital health, which includes a broad range of tools such as artificial intelligence, mobile health apps, and telemedicine platforms (Köse, 2023; Martínez Asanza, 2024a; Mouloudj

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