

Service Quality and Clients Satisfaction of Digital Dental Diagnostics in Highly Urbanized Cities in Western Visayas

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Introduction: This study aims to assess the level of service quality of digital dental diagnostics in highly urbanized cities in Western Visayas and to determine its relationship with client satisfaction while identifying the operational challenges inherent in its implementation. Specifically, the study examines whether significant differences exist in service quality and client satisfaction when respondents are grouped by age, sex, occupation, educational level, and frequency of utilization, and it investigates the overall relationship between service quality and client's satisfaction.

Methodology: Utilizing a descriptive correlational design, this study engaged 270 randomly selected dentists and clients from Bacolod and Iloilo Cities to evaluate digital dental diagnostic services. A researcher-made questionnaire assessed service quality across reliability, assurance, tangibles, empathy, and responsiveness. Data were analyzed using descriptive statistics and the Kolmogorov-Smirnov test, with strict adherence to Philippine Health Research Ethics Board (PHREB) guidelines.

Results: Dental professionals and clients rated the service quality of digital dental diagnostics as *very high*, with empathy and responsiveness ranking highest. These findings support the SERVQUAL framework, emphasizing the critical role of personalized and prompt care in digital platforms. However, demographic nuances were evident; younger clients prioritized responsiveness, while older clients valued assurance and empathy. Given the strong correlation between service quality and satisfaction, the study recommends continued investment in staff training and digital communication to enhance these key dimensions and elevate the overall patient experience.

Conclusion: Digital dental diagnostic services in Bacolod and Iloilo consistently deliver exceptional service quality, particularly in the areas of empathy and responsiveness, which considerably contribute to high client satisfaction. This affirms the crucial role of client-centered care in modern, technology-enhanced dental practices.

Practical Value: This research provides actionable insights for dental clinics and healthcare providers by emphasizing the need for robust quality assurance protocols, targeted staff training, and effective client communication strategies to maintain high standards in digital diagnostics. The findings serve as a roadmap for enhancing service quality and establishing a competitive advantage in the digital healthcare landscape.

Direction for Future Research: Future research should employ longitudinal designs across diverse populations and utilize structural equation modeling to examine causal relationships between SERVQUAL dimensions and satisfaction. Additionally, refining the assessment framework to include objective performance data will better capture the impact of emerging technologies, such as AI imaging and virtual consultations. This comprehensive approach will yield deeper insights into how digital innovation shapes the dental care experience.

Keywords: digital dental diagnostics, service quality, client satisfaction, SERVQUAL, Philippines

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