

A Study about the Impact of Artificial intelligence (AI) and Service Innovation on Visitor Experiences from Taiwan Museum

Ying-Yueh Su

Fu Jen Catholic University, Taiwan
091259@mail.fju.edu.tw

Siao-Yun Wei

Chinese Culture University, Taiwan
hywei@sce.pccu.edu.tw

Yen-Ku Kuo

Chinese Culture University, Taiwan
hrdlover@gmail.com

Abstract

Artificial intelligence (AI) is revolutionizing the landscape of science and technology, significantly impacting human lifestyles and driving breakthroughs in the museum industry. Its integration extends beyond terminal products to encompass platform system integration, providing customized services that enhance the visitor experience sustainably. For instance, smart tour services utilize virtual reality (VR) and augmented reality (AR) to offer immersive experiences while minimizing resource consumption. Sensing technologies can detect visitors' locations and transmit real-time exhibition information to their mobile devices, facilitating efficient resource utilization. AI's data analysis capabilities support uninterrupted tourism operations by streamlining complex procedures and reducing labor costs, enabling museums to refine their services and enhance user experiences. This focus on sustainability not only maximizes tourism value but also increases the competitiveness of the industry. This study investigates the visitor experience in Taiwan museums as influenced by service innovation and AI technology. Research hypotheses are established through literature synthesis and theoretical inference, followed by a questionnaire survey for data collection. Statistical techniques, including correlation analysis and structural equation modeling, will be used to explore relationships between demographic characteristics and key variables. The results of this study suggest that AI and service innovation can play an important role in enhancing the visitor's museum experience. The research provides recommendations for the museums to leverage AI and optimize visitor engagement and foster more meaningful connections with exhibition.

Keywords: Artificial intelligence (AI), Visitor Experience, Service Innovation