

## **Investigation of Augmented Reality's Influence on Heritage Tourism Satisfaction**

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### **Abstract**

This research investigates the influence of augmented reality (AR) on destination satisfaction in cultural and heritage tourism, with a specific focus on the historical sites of Polonnaruwa in Sri Lanka. The study seeks to shed light on the potential of AR as a practical and affordable solution in addressing the challenges of limited funds for site reconstruction while aiming to enhance tourists' experiences. The research objectives include examining the influence of AR on destination satisfaction, investigating the mediating role of perceived value and immersive experience, and exploring the relationship between immersive experience and perceived value. In order to bridge this gap, the researcher employed a structured questionnaire and the convenience sampling technique to survey 256 visitors to cultural and historical destinations as part of a quantitative research approach using IBM SPSS Statistics 25 and Smart PLS 4. The results indicate a positive and significant relationship between AR and destination satisfaction, suggesting that AR significantly impacts tourists' overall satisfaction with historical and cultural sites. The researchers found that perceived value and immersive experience mediate the relationship between AR and destination satisfaction, emphasizing the importance of value perception derived from the AR experience and shaping tourists' satisfaction. Moreover, a positive and significant relationship between immersive experience and perceived value indicates that the immersive aspects of the tourist experience positively contribute to the perceived value of visiting cultural and heritage sites. The study recommends utilizing AR technology to improve cultural and heritage tourism destination satisfaction. Authorities should integrate AR experiences at historical sites and train tourism professionals to use AR. Moreover, future researchers can explore the long-term effects of AR on tourist behavior and loyalty and influences on future visitation and repeat visits. These discoveries have potential applications in improving the tourist experiences at other Sri Lankan cultural and historical sites.

**Keywords:** *Cultural Tourism, Heritage Tourism, Augmented Reality, Tourist Satisfaction, Immersive Experiences*