

EXPLORING THE CHALLENGES OF AUGMENTED REALITY APPLICATIONS IN SUSTAINABLE DIGITAL MARKETING: A CASE STUDY OF ARTS AND CRAFTS MICRO, SMALL, AND MEDIUM ENTERPRISES IN SRI LANKA

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ABSTRACT

This study aims to identify the challenges faced by micro-, small-, and medium-sized enterprises (MSMEs) in digital marketing, specifically focusing on Augmented Reality Applications (AR Apps). This addresses a critical gap in understanding the specific challenges MSMEs encounter when utilizing AR apps for digital marketing to support sustainability. This research highlights that MSMEs in Sri Lanka's arts and crafts sector lack a clear comprehension of both the existing practices and the anticipated outcomes of using AR applications. There are significant gaps in the literature on sustainable digital marketing within this context. Employing a qualitative research method and an in-depth case study approach, interviews were conducted with an art and craft MSME owner in Northern Sri Lanka. The research design adopted thematic analysis, which included data familiarization, generation of initial codes, theme identification, theme review, and definition and naming of themes, culminating in the final report generation. The findings revealed that device compatibility issues and high development costs hinder the effective operation of AR apps on older smartphones, and make it prohibitively expensive for local businesses to develop such apps. Barriers to user adoption include a lack of awareness and understanding of AR technology, preference for traditional methods among many customers, and privacy and security concerns due to AR apps requiring access to sensors and cameras. Additionally, content creation and maintenance pose challenges, as developing engaging and accurate AR content is resource-intensive and requires continuous updates. Environmentally, the manufacturing and disposal of devices required for AR apps contributes to e-waste and increased energy consumption, thereby negating sustainability benefits. Scalability issues were identified, as AR apps by MSMEs often have limited reach owing to constrained marketing resources. The originality of this study lies in its focus on the specific digital marketing challenges faced by MSMEs aiming for sustainable digital marketing, thus providing valuable insights into technological, educational, content-related, environmental, and scalability barriers. The research implications suggest that addressing these challenges requires technological advancements, improved user education, strategic partnerships, and continued investments in content and infrastructure. Overcoming these barriers can help MSMEs use AR and other digital marketing tools more effectively, engage customers in sustainable practices, and support long-term business sustainability.

Keywords: Augmented reality, micro, small, and medium enterprises, Sri Lanka, sustainable digital marketing.