

CULTURAL TOURISM TREASURES SUSTAINABILITY IN THE DIGITAL AGE

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ABSTRACT

In the contemporary globalized environment, swift digitalization is fundamentally altering various sectors. The cultural heritage is not immune to this trend, undergoing significant changes due to advanced technology. This research delves into the consequences of digitization on cultural heritage, particularly focusing on its effects on accessibility and engagement. Through digitization, cultural artifacts, documents, and landmarks are not just preserved digitally but are also made accessible to a global audience. This study, employing a systematic literature review, aims to explore how technology has evolved and influenced the establishment of meaningful connections between users, virtual content, and cultural context, fostering interaction within both the cultural realm and virtual environments. This marks a departure from traditional methods of experiencing heritage sites, museums, and historical literature. Immersive technologies like Augmented Reality (AR), Virtual Reality (VR), Augmented Virtuality (AV), and Mixed Reality (MxR) have emerged as powerful tools for sharing cultural knowledge in the domain of virtual heritage (VH), enriching the visitor experience by providing novel perspectives on historical narratives. The objective of this paper is to investigate the dynamic interplay between technology and cultural heritage, clarifying the opportunities and challenges presented in the globalized era.

Keyword: Immersive technology, digitalization, Cultural heritage, virtual environment

1. Introduction

The cultural heritage is relevant to individuals, ethnic groups, nations, and the worldwide community. In Malaysia there are two forms of cultural heritage. The form of buildings or artifacts are in a category of tangible cultural heritage whereas people's values, attitudes, and way of life, is categories as intangible cultural heritage. This cultural heritage exists in any part of Malaysia or in relation to the heritage of a Malaysian community (Ismail et al., 2014). In related to tourism, many cultural destinations are a substantial element of tourism (Seyfi et al., 2019). Nevertheless, mentioned by Marcelo (2019), for better tourism and marketing management, gathering the information about this type of excursion or tourism and obtaining the proposals are more complicated than it would seem. Despite this, relatively little is known about the aspects that contribute to the total cultural travel experience (Seyfi et al., 2019). Otto and Ritchie (1996) added that, customer experience has persistently been at the main point of the entertainment business and more broadly in the services sector as cited in Seyfi et al. (2019).

As cited in Puah et al. (2018), in 2014, the Malaysian tourism industry ranked as the sixth largest contributor to the national economy. In addition, Cultural tourism is also a main pillar of employment globally. It is considered as a core priority to stimulate job creation by many countries around the world, notably for youth (Unesco, 2022). In 2016, as stated by Puah et al., (2018) and Misachi (2017), tourism was the third largest source of foreign income, following the manufacturing and palm oil industries, accounting for over 7.0% of the country's economy. Today, digital technology has modernized the marketing activities, and the world is experiencing quick growth in tourism with various countries competing to attract more tourists from around the world. Tourists typically explore various destinations to experience different cultures, cuisines, and attractions (Mallick, 2023). Bala and Verma (2018) emphasize that, digital technology is highly favored as a marketing medium today

due to its extensive reach and the convenience it offers for sharing information quickly and efficiently as cited by Mallick (2023). Previously, Kumar (2021) highlighted the dropping prices of digital marketing services due to the increasing number of mobile users and growing usage of social media plans are a few of the multitude of motivations which has led to the extensive adoption of digital marketing strategies by the industry. Quite literally, the absolute industry is turning to mobile as there are modern-world start-ups coming up at present highly saturated hospitality and tourism sectors which are mobile-only (Kumar, 2021).

Additionally, The Information and Communication Technologies (ICTs) that blend reality and virtuality can significantly impact the customer experience as emphasized by Gartner (2017), VR, Augmented Reality (AR) and Mixed Reality (MR) are ranked in the top 10 strategic trends for 2018 as cited in Flavián, Orús, and Ibáñez-Sánchez (2019). In contrast, from a sociotechnical and governance standpoint, there are numerous challenges as platform providers work to enable users and organizations to create their own virtual worlds (Dwivedi,2022). This study through systematic literature review aimed to explore the impact of technology's capability to establish a meaningful link between users, virtual content, and cultural context which promotes interaction within both the cultural setting and virtual environments. In the past few years, Augmented Reality (AR), Virtual Reality (VR), Augmented Virtuality (AV), and Mixed Reality (MxR) have growth as immersive technologies for sharing cultural knowledge in the realm of Virtual Heritage (VH). As technology continually evolves, professionals and cultural institutions require practical guidelines in enriching the skills for content development and adopting new technologies from the expertise.

2. Methodology

To address the research problem of differentiating the impacts of various digital marketing strategies on the sustainability and resilience of cultural tourism, a qualitative research technique will be attempted to provide a robust and holistic understanding of the effectiveness of virtual tours. The research employed a qualitative methodology, specifically through the analysis of documents. This approach systematically reviews pertinent documents that align with the research goals and questions. Document analysis stands out for its efficiency, ease of access, cost-effectiveness, stability, and comprehensive scope (Bowen 2009). Zakiyah Tsauroh Islamiyah et al (2021) describe, the systematic literature review (SLR) approach as a thorough investigation into the existing body of literature, research, and academic discussions on a particular strategic topic. This method involves the critical evaluation and integration of current knowledge to identify essential ideas, theories, methods, developments, and gaps in the literature. It's important to recognize that conducting a strategic literature review is a flexible process that can be adapted and refined based on new research findings or changes in the strategic context.

2.1 Research Design

This research is conducted as a qualitative study employing a systematic literature review methodology. The qualitative research design aims to delve into and comprehend intricate phenomena, subjective experiences, and social interactions.

Referring to Nolan (2013), the author offers a methodical, narrative, thematic assessment of the qualitative literature along with a template for organising the review procedure. Additionally, Baxter and Connolly (2013) show how to apply a systematic literature review to investigate particular research areas and improve comprehension of organisational blogging. Moreover, Bonfanti et al. (2018) demonstrate the use of a methodical literature review methodology to investigate the formal methodologies used in medical software systems. Conversely, García-Perdomo (2018) highlights the

necessity of a stated methodology and critical evaluation in the review process, as well as the need to increase the quality and transparency of systematic reviews. Hawkins et al.'s (2019) protocol for a systematic descriptive literature review, which emphasises the significance of examining validation practices within a theoretical framework, continues the topic of the guidelines for systematic literature reviews.

By integrating these insights, a systematic literature review research design for this study will involve formulating clear research questions, conducting systematic searches, screening and selecting relevant articles, analyzing and synthesizing findings, implementing quality control measures, and preparing a comprehensive final report. Following a systematic and transparent approach, researchers can ensure the credibility and reliability of their systematic literature review, significantly contributing to the advancement of knowledge in their research domain.

2.2 Data Collection

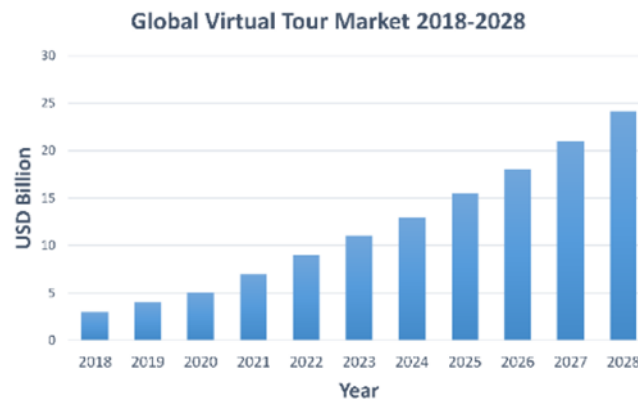
The researcher utilized the library research method for gathering data. This approach entails the collection of information and data from available resources in libraries or online databases, focusing on the examination and analysis of previously published works such as books, academic articles, journals, reports, dissertations, and other relevant documents. The aim of conducting library research is to unearth significant literature pertinent to the specific subtopic being studied. Additionally, the content analysis method was adopted to thoroughly examine the research materials on a wider scale. The research primarily focused on three key themes to derive meaningful insights from previous studies related to the study's main subject to assess the differential impacts of digital marketing strategies across different context to find the meaningful link between users, virtual content, and cultural context which promotes interaction within both the cultural setting and virtual environments. Investigating the dynamic interplay between technology and cultural heritage, clarifying the opportunities and challenges presented in the globalized era.

3. Discussion

3.1 Technology Capability

Stated by Siddiqui et al. (2022), among the tourism industry stakeholders, recently virtual tourism has become progressively popular. Appreciate on the advancement of technology worldwide and for quite some time the progress of developing behind the scenes of virtual tourism and the use of the internet for smart tourism concepts is deeply rooted. A headset or simulator is a tool used in sophisticated form of virtual tourism provided by immersing yourself in the environment. the user may need to wear gloves to engage with the use of various technological instruments and may have additional sensors, such as motion, proximity, direction, gestures, feeling (response), and even smell. The emerging of technology contributes to the detailed experience which covers a wide range of digitally enhanced realities incorporating virtual reality (VR), mixed reality (MR), and augmented reality (AR) (Siddiqui et al., 2022). AR applications for cultural heritage have been steady progress over the last decade which has led to the development of engaging apps (Boboc et al. 2022).

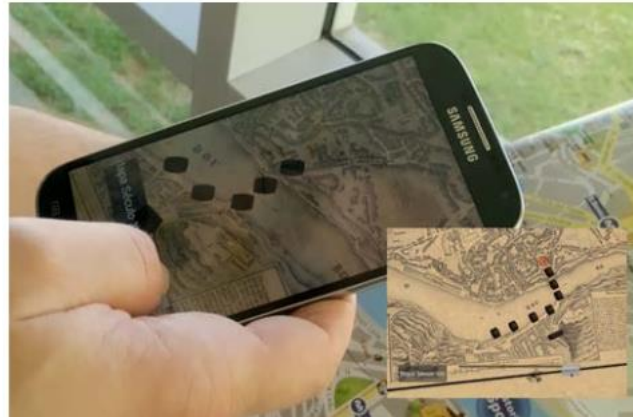
Fig 1: Market growth of Virtual Tourism (Siddiqui et al., 2022)



Added by Sirazhiden, D. (2020), to avoid the spread of infection in the context of the COVID-19 pandemic, many cultural links in real time establish and doable. It serves a continuous process of cultural penetration into everyday life, without creating a danger to human health by allowing VR and AR technologies in the field of culture with considering the lack of access to the cultural treasures of the world to people who are not able to regularly keep up with the news of culture and art. Moreover, according to Khanal, K. (2024) AR allows interaction with the actual surroundings which combines elements of both virtual and real-world environments, requiring physical presence and movement. VR focuses on a computer-generated virtual environment which operates within a completely artificial environment, offering a distinct and separate virtual world. Added by Kandaurova & Lee, (2019), AR combines digital parts to the real world around us while VR initiates a world that only exists digitally as cited in Khanal, K. (2024). Boboc et al. (2022) stated that, tourists using mobile accessible devices sharing their CH-oriented experiences and augmenting them with their own stories and memories and thus pushing forward the common cultural memory with the utilizing of the social media platform. The huge amount of information by the trend contributes to the challenge of filtering the existing information, classifying it and finally deciding if the visitor's input was useful to humanity's memory.

Apart from that, stated by Chong et al. (2022) not all individuals can experience the immersion of presence within the virtual world due to familiarity towards the VR technology often depleted. He added on the other challenges are surrounded by the affordability to implement such technology to practices in the costing and accessibility for VR devices. Supported by Vladimir Geroimenko, (2021) the replacement of technology should not happen only in improving the tourist experience to not hinder the touristic site.

Fig 2: Exploring the history of Porto using a XIX century map that is superimposed in AR onto the real map behind (Vladimir Geroimenko., 2021)



In the fig. 2 the tourist holds the smartphones with the AR application on a common city map show the technique to help the tourist receive additional information from multimedia content which indirectly increase the value of objects, papers and pamphlets given to tourists. According to Szalavári et al. 1998; Billinghamurst and Kato (2002), there are five attributes for these experiences that have been identified; 1. “Virtuality. Objects that don’t exist in the real world can be viewed and examined”; 2. “Augmentation. Real objects can be augmented with virtual annotations”; 3. “Cooperation. Multiple users can see each other and cooperate in natural ways”; 4. “Independence. Individual users control their own independent viewpoints”; 5. “Individuality. Displayed data can appear in different forms for individual viewers depending on their personal needs and interests” cited in Vladimir Geroimenko., (2021).

Another study by Nicholas, C. L. (2023), developed the project which inspired by his grandfather and father, whose lives, and a survivor for Japanese occupation of Malaya during an affecting time in Malaysia’s history. The digital exhibition/VR comprises of 20 survivors in WWII Japanese occupation in Malaya (1941-1945) that involve the community storytelling journey, featuring snippets of stories. Nicholas, C. L. (2023), added the Malaysian survivors from various races and genders are the main focuses on their lived experiences who majority from Taiping, Perak or stayed in Perak during the war. The virtual reality/360-point movement technologies navigable using Oculus Meta Quest 2 and mobile VR are the digital components utilized in this exhibition. In addition, a number of museums has been execute in a digital applications where the digital technologies considering on other areas of the economy to build new products and services such as new organizational structures to adapt with the gradually increase in digital environment, generate new capital by tapping into existing resources and reaching new markets in online exhibitions, new methods to research, display and manage collections (Navarrete, 2019). Navarrete (2019) states that the emerging forms of consumption afforded by digital technology and the Internet lead to the developing new services with museums towards the collaboration. The example provided in his study is the 3D visualization of Archaeological Reminiscence of Millet’s “Angelus”. Based on Francois Millet’s The Angelus from 1859 hanging at the Musée d’Orsay in Paris drew by Salvador Dali from 1935. The Salvador Dali Museum in St. Petersburg Florida (U.S.A.) in 2016, create an exhibition about the two innovators and commissioned a virtual-reality environment of the painting in a collaboration with Walt Disney. According to Elliott, (2014) as cited in Navarrete (2019) the museum adapted and focused on expanding their online presence by removing an unpopular charge to user

preferences. The success of this strategy is demonstrated by the significant international engagement on their social media platforms, representing a successful turn towards digital outreach.

4. Conclusion

Today, digital technology has modernized the marketing activities, and the world is experiencing quick growth in tourism with various countries competing to attract more tourists from around the world. According to Bekele, M. K., & Champion, E. (2019), cultural learning has been emphasized for virtual environments to enable engagement as an important method of interaction. Ibrahim and Ali, (2018) emphasized the potential of virtual environments to serve as a platform that facilitates cultural learning as cited in Bekele, M. K., & Champion, E. (2019). Furthermore, according to Maye et al., 2017; Rahaman, 2018; McGookin et al., 2019; Šašinka et al., 2019, it is very crucial to balance the interaction, engagement, and content for learning culture with the proper context (correlation) between users and cultural situation, and on some form of collaboration between users as cited in Bekele, M. K., & Champion, E. (2019). As stated in Khanal, K. (2024), emphasized by Iqbal et al., (2023), future research should focus on ethical data collection, user consent, and privacy protection to develop frameworks and best practices in these immersive environments. Apart from that, practical guidelines are a must for professionals and cultural institutions in enriching the skills for content development and adopting new technologies. It is also essential to ensure that the authenticity, integrity and the ethical values remain intact. This guidelines is necessary to avoid any distortion of historical narratives.

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