

Adopting Technology in Preserving and Promoting Cultural Tourism

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ABSTRACT

Cultural Heritage, both tangible and intangible, is an expression of a lifestyle, developed by a society and transmitted from generation to generation, which includes traditions, belief, space, object, artistic expression and value systems. Cultural and natural heritages are valuable resources that add to the unique tourism appeal of any country. Protecting and promoting heritage value as a valuable tourism product, on the other hand, is a difficult task. This paper discusses how technological advancements can help with the preservation and promotion of cultural heritage tourism. The study used Malaysia as a case study, providing a discussion of the intriguing potential surrounding virtual travel experiences obtained through MyVirtual Experience Programme participants' participation. In many respects, the usage of technological applications has benefited the visitor experience as well as the source of cash production for industry players.

Keywords : Cultural heritage, Cultural tourism, Technology adoption, Virtual experience

I. Introduction

Tourism is defined as "the set of activities undertaken by persons temporarily removed from their usual environment for a period of not more than one year for a wide range of leisure, business, religious, health, and personal reasons, excluding the pursuit of remuneration from within the place visited or long-term change of residence (Abram & Waldren, 2021). There are numerous types of tourism, such as ecotourism, wildlife tourism, mass tourism, gourmet tourism, and so on, but cultural tourism occurs when a traveler engages with a country's culture. In the broadest sense, culture refers to social behaviour, norms and beliefs, customs, and history linked with a specific group of people or area.

Cultural tourism is a type of tourism activity in which the primary motivation of the visitor is to learn, discover, experience, and consume the tangible and intangible cultural attractions in a tourism destination, such as the local

population's lifestyle, heritage, arts, industries, and leisure pursuits. These attractions are associated with a collection of distinct material, intellectual, spiritual, and emotional characteristics of a culture. Cultural tourism encompasses urban tourism, particularly in historic or big cities, as well as cultural facilities such as museums and theatre. It can also include rural tourism that showcases the traditions of indigenous cultural communities, as well as their values and way of life.

Culture-based tourism products have grown in popularity since culture shapes our lives and is unique to each place. Tourists in this sector travel not just for a vacation, but also to participate directly in the cultural traditions and activities of the local communities. As a result, cultural offers pride to local communities while also fostering cultural bonds and understanding between host and the guest communities (Sudipta, Sarat, & Babu, 2010).

Cultural identification is still a powerful concept that binds us to our origins. Association with a culture is an essential part of our identity and life. The art, architecture, and historical relevance of many regions keep visitors interested. It piques their interest in learning more about the culture of the region. According to Raj (2017), cultural tourism is about the development of local communities, indigenous knowledge, fairs and festivals, customs and traditions, language, natural heritage, clothing, and cuisines. It can also refer to tangible culture, such as buildings, monuments, landscapes, publications, works of art, and artefacts (books, documents, photos, and items) that are passed down from generation to generation.

Cultural tourism increases the quality of life of local populations by developing infrastructure and services, which are key parts of any form of tourism. It also aids in the preservation of a country's past and makes it more acceptable to people from different cultural backgrounds. It is perhaps the finest approach to learn about different cultures and to teach people to be more empathetic and accepting of others. Thus, cultural tourism not only maintains cultural identity but also unites civilizations on a worldwide scale.

Malaysia's tourism business has grown to become one of the world's most appealing destinations. The state government stated in Thrust, one of the Ninth

Malaysia Plan, that tourism would become the business that enhances the value chain on various focused areas. Malaysia received 4,332,722 international visitor arrivals in 2020, a decrease of 83.4% from the 26,100,784 recorded in 2019 (Tourism Malaysia, 2021a). Malaysia has seen a decline in the number of tourist visits, although it is not alone in this. According to the World Tourism Organisation (UNWTO), the Pacific and Asia experienced an 84% decrease in arrivals. According to the Pacific Asia Travel Association (PATA), Malaysia's ASEAN neighbours reported a significant reduction in tourist numbers, including Singapore (-85.7 percent), Thailand (-83.2 percent), Vietnam (-78.7 percent), and Indonesia (-75 percent) (PATA, 2020). Malaysia's economy is heavily reliant on the tourism industry. As a result, expanding tourism activities will have a multiplier effect in other economic sectors such as the hotel business, shopping, restaurants, and transportation. It demonstrates how important the tourist industry is to Malaysia's economy and popularity.

Cultural heritage tourism is one of the new waves that have resulted in the tourism industry making a substantial contribution to the Malaysian economy (National Trust, 2014). Culture and history tourism, according to Datuk Seri Dr Ng Yen Yen, the nominal head of the Malaysian Tourism Promotion Board, is a new area that is promoting Malaysian tourism. She stated that the new tourist product (culture and heritage tourism) "is putting Malaysia on the world map as one of the destinations for culture and heritage experience" (Yen, 2013), owing to the country's rich history and cultural heritage qualities. Cultural heritage visitors stay longer and spend more money than other types of visitors, according to studies (National Trust, 2014), indicating that cultural heritage is no longer a mere memory or a cultural reference.

As a result, the preservation and promotion of cultural heritage has become a central topic in international cultural policy, with the United Nations Educational, Scientific, and Cultural Organisation (UNESCO) including cultural heritage in its sustainable development agenda (Boccardi & Duvelle, 2013). To achieve sustainable cultural heritage tourism development, the cultural heritage that offers tourists with a great experience must be maintained and conserved. Unfortunately, for decades, the intangible part of cultural heritage, also known as living cultural

assets, has received less attention. This neglect is the result of globalisation and a changing and dynamic culture, which results in a dwindling interest in sustaining and practising preservation.

Many people assume that intangible cultural heritage is primitive and has little economic value, and as a result, they are unconcerned about the extinction of these precious assets. Nations are just recently becoming aware that living cultural assets (intangible heritage) are also cultural riches that should be treasured and protected (Alivizatou 2012; Alivizatou-Barakou et al., 2017; UNESCO, 2013). The UNESCO Convention for the Safeguarding of Intangible Cultural assets, adopted in 2003, has successfully prompted several of its member countries to develop projects to protect intangible cultural assets. Malaysia's government was one of the first to address the issue of preserving intangible heritage, establishing "The National Heritage Act" in 2005, demonstrating the value attributed to it. This Act calls for the conservation and preservation of both tangible and intangible cultural property, as well as the monetization of cultural heritage as a tourism commodity.

In a different point, the tourism sector has been profoundly altered by digital technology or digitalization. Nowadays, digitalization is a focal point for cultural heritage collection, protection, promotion, and a new way for broader heritage access. The influence of digital technology on tourist behaviour before, during, and after a journey is gaining importance and weight, changing conventional travellers into digital travellers and savvy travellers. Smart visitors employ technology that can recognise tourist attractions, display events visited near tourist attractions, display the nearest police station and hospital for emergencies, and retain a history of recognised artefacts.

Adoption of Digital Technology

The borders between the virtual and real worlds are being overcome by digital technology, which will raise the level of immersion and experience (Bec et. al., 2019, Jung et. al., 2016). Virtual reality (VR) and augmented reality (AR) technology have been successfully incorporated in the tourism area, with the ensuing benefits of improving visitor engagement both before the visit and remembering the tourist site. To date, AR studies in tourism have primarily focused on improving experiences and interactions, in which real-world scenes are

supplemented by multimedia to deliver personalised interactive information in a user-friendly interface (Jung et. al., 2016). VR apps have arisen to enhance and create memorable travel experiences in places as well as off-site (Huang et. al., 2015). Tourism activities and experiences, such as community-based cultural tourism and cultural tourism projects, will help to preserve and manage local culture. As a result, cultural heritage becomes the focal point of tourism destinations (Ursache, 2015). As a result, because many tourist objectives are centred on local history, technology-based applications have a big possibility to contribute to tourism experience management, heritage preservation, and overall tourism experience improvement (Bec et. al., 2019).

In recent years, the inclusion of digital technology in place of conventional ways has been the emphasis of legacy conservation and conversion. Preservation of physical heritage artefacts and sites via photogrammetry, digital document storage, and 3D scanning (Jung et. al., 2016, Yastikli, 2007). Furthermore, AR and VR have been used for heritage preservation, with a stronger emphasis on user participation. Another application of AR and VR in heritage preservation is to expand the involvement of the tourist experience in a broader variety of fields and tourist destination (Jung et. al., 2016, Martins et. al., 2017).

This paper is written based on the content of the various documents, interviews and social media platforms of the industry players and the tourists focusing on Malaysia's experience.

II. Discussion on adoption of digital technology in Malaysia

In general, the technological feature used in the current cultural tourism domain is Virtual Reality. VR is being defined as the virtual environment created by the computer, where people can act and interact. With virtual reality technology users have the ability to walk, move, discover, interact, choose and move objects - all in real time. Parallel with the technological development, virtual reality systems are able to deliver high quality data of user's emotions. VR experience is being affected by two factors: at what level is the technology user isolated from the real world and psychological presence capacity.

VR technology is often used in mobile applications to produce a better user perspective. Location-based technology is used in mobile applications as a navigation medium at a cultural tourism location such as in a mobile tourism application based on cultural tourism sites in Malaysia (Panahi, Woods & Thwaites, 2013). Social media technology is very widely used and one of the effective ways to spread information. This media stores data regarding user profiles, interactions and media for exchanging information, making reviews and checking locations. Social media is integrated with multi media for the benefit of cultural tourism (Ping, Yang & Cao, 2020).

Malaysia's experience in utilizing virtual reality

In Malaysia, the use of virtual reality in tourism products is still limited. Because many places rely on tourism to provide economic value, the adoption of VR in tourism has been viewed with skepticism. The more tourists who visit their locations, the more money the host community will earn. The monetary gains from tourists and visitors help to conserve and maintain the sites. Similarly, at the national level, the country is heavily reliant on revenue generated by tourists and business. Tourist spending and foreign investment in tourism infrastructure benefit the host country's economy and the native population's standard of living. As a result, it is in the best interests of the country to attract as many tourists as possible to physically experience tourism.

Developing VR tools can be pricey for many, particularly small tourism industry operators, hence VR applications can only be provided by large operators. For example, VR is frequently employed as an entertainment tool to enhance travellers' experiences at the famed Resort Worlds Genting at Genting Highland, located around 45 minutes from Kuala Lumpur. It has an indoor and outdoor theme park that is suited for people of all ages. VR is built in a variety of entertainment applications by efficiently combining relevant input and output devices. Tourists can explore the area and interact with 3D objects and settings to make their visit more lifelike. These experiences provide users with an immersive virtual world experience by visualising 3D objects and scenarios and manipulating the scene in a realistic setting. As a result, people can virtually explore the appeal of the vacation site as if it were true. However, in order to experience VR,

travellers must physically visit the location. The service has not been expanded remotely, where tourists should be able to enjoy it from home. Prior to the breakout of COVID-19, VR was mostly limited to a single destination, but the country's tourism sector is changing dramatically, creating a demand for a broader use of VR.

Virtual Reality in as marketing cultural tourism

The use of virtual reality (VR) in tourism marketing is a frequently discussed topic. VR will have a significant impact on the promotion of tourist locations, both known and unknown, popular and unpopular, opening up new paths for different investigations of Malaysia's tourism attractions. Given the intangible nature of the majority of tourism products and services (Wang et al., 2017). The primary advantage of VR for tourism marketing is its capacity to give potential travelers with a comprehensive collection of cognitive and emotional information. One of the most distinguishing features of a tourism product is that it cannot be tested prior to consumption. Customers are purchasing this product on the basis of current descriptive information found on relevant web pages. In this context, the nature of VR emerges as the most ideal instrument for offering rich data to clients in order to aid them in collecting the necessary information about a certain tourism product. Virtual location tours created with VR applications increase the likelihood of clients making conscious decisions. By allowing travelers to receive a "taste" of the tourism experience while also interacting with credible and comprehensive information, VR has the potential to improve the inspiration and information phases of the consumer journey. It has the potential to pique people's interest and urge them to observe the virtual promotional experience, resulting in greater interest and a favourable attitude towards the destination (Tussyadiah et al., 2017). It can arouse curiosity and readiness to observe the virtual promotional experience, resulting in increased interest and a favourable attitude towards the place. For example, destination marketing organisations, hotels, and other tourist stakeholders have used web-based virtual tours to communicate and capture attention (Hyun & O'Keefe, 2012). They enable the virtual traveler to "experience" the destination before visiting it, and they transform experiential features into searchable properties. When compared to

traditional brochures, the use of VR may have a greater advertising impact (Wan et al., 2007). In addition, if the destination is promoted in VR rather than on a website with static photographs or 2D movies, the intent to share the commercial experience with others or recommend the place is greater (Griffin et. al., 2017).

As a result of the COVID-19 pandemic's restrictions, numerous advertising and promotions for Malaysia's tourism business are increasingly relying on virtual means. Malaysia introduces a "virtual café" called Malaysia Truly Asia Café Corner for the first time, highlighting Malaysia's niche products such as specialized scuba diving for the disabled, bird-watching, medical tourism, Malaysia's islands and beaches, national parks, and UNESCO heritage cities (Tourism Malaysia, 2021b). Tourism Malaysia is looking for opportunities to discuss potential collaborations and partnerships through this platform, which leverages the business-to-business (B2B) platform. France, Spain, Portugal, Turkey, Germany, Moscow, Ukraine, Austria, Italy, the Czech Republic, the Balkan Region, and Sweden are among the markets identified for these collaborations. Apart from marketing and boosting Malaysia's visibility in the European market, Tourism Malaysia also wishes to strengthen connectivity from major long-haul destinations to Malaysia and to attract tourists through international events such as ITB Berlin.

Tourism Malaysia took part in the virtual tourism exhibition AVIAREPS Southeast Asia Virtual Roadshow, which was held in a fully 3D environment, allowing both buyers and sellers to communicate through their avatars, giving the appearance of a virtual exhibition, in the safety and comfort of everyone's choice of locations with no border restrictions. Over 500 major Southeast Asian outbound agencies are virtually presenting 33 merchants' goods, destinations, and services (ASEAN). Online business-to-business (B2B) matching appointments enable both merchants and buyers to meet with people who share their interests, maximizing tourism business networking prospects while rekindling old relationships and building new ones. This exhibition provides the finest alternative platform for buyers and sellers from around the world to discuss their travel enterprises in the midst of the current COVID-19 outbreak, which is limiting physical interaction and communication.

Furthermore, the Malaysian Ministry of Tourism, Arts and Culture (MOTAC) launched Interactive Digital Brochures, a microsite site that breathes new life into the rebranding of Tourism Malaysia pamphlets through interactive browsing on ebrochures.Malaysia.travel. To begin, Tourism Malaysia's top five digital flyers, namely Malaysia Travel Guide, Kuala Lumpur, the Dazzling Capital City, Langkawi, and the Jewel Kedah, Islands and Beaches, and Adventures with Nature, have been posted to the site. In contrast to the previous publication of pdf-formatted e-brochures that could only be downloaded and printed, the new digital edition of the site now includes numerous multimedia elements such as text, voice, graphics, animation, and video for more practical information delivery. The site is more user-friendly and responsive, making it easier for visitors to view the information using technological devices such as tablets, smartphones, and laptop computers. The digital brochure's content can also be easily shared via other platforms such as Facebook, Twitter, WhatsApp, and email.

In addition to utilizing Google Analytics for data analytics and search engine optimization (SEO) for increased accessibility, the site, which has been custom created with a more modern and stylish appearance, can also be immediately updated. This website configures Google Maps links to assist tourists and travel operators in planning their visits, selecting suitable lodging, and learning about nearby facilities such as petrol stations, restaurants, parking facilities, and hospitals.

Malaysia My Virtual Experience

People may select virtual travel as a form of escapism and a respite from tedious day-to-day employment, especially when physical travel is limited due to time or budget constraint. In a distinct approach to virtual reality, tourism players in Malaysia use the technology platform to stay afloat. LokaLocal (www.lokalocal.com) VR, for example, is changing the way visitors discover Malaysian places. It provides a 360-degree interactive experience to entice visitors to visit Malaysia. The VR platform includes articles, films, audio, and other features that provide knowledge about the country's most intriguing locations and can be accessed from any device. The programme generates 143 virtual tours of various lodging providers, tourist sites, events, and intriguing locations. To access the 360-

degree virtual storytelling experiences, simply touch on the link in each destination's image. Destinations are classified to make it easier for tourists to choose a location based on their interests. Outdoors, beaches, family-friendly, museums, and art & culture are all included in this category. Furthermore, the portal offers recommendations such as travel ideas and activities to do in a specific location. The VR platform has benefited several tourism attractions. For example, the Mah Meri Cultural Village now offers a virtual tour so that tourists can get a feel for the indigenous historical centre. Going virtual also facilitates content discovery for locations and activities, as well as increasing participation and offering genuine value in some circumstances.

The digital initiatives attempt to establish the groundwork for recovery in the middle of Malaysia's delayed tourism revival. The company is unusual in that stakeholders must react and devise plans to ensure the country's tourism industry survives. Even while LokaLocal's VR platform provides a 360-degree virtual experience, it does not allow for social interactions. The pre-recorded voices used to deliver the destination information are essentially one-way communication.

Another virtual experience programme in Malaysia is the Malaysia Virtual Experience Programme (MyVXp), which was launched by the Tourism Productivity Nexus and Malaysia Productivity Corporation (MPC) to transform offline products into virtual experiences by leveraging technology and digital platforms. This programme intends to popularize the new normal of tourism-virtual travel as a virtual tourist. It is also useful as a marketing tool to promote the country's tourist attractions and destinations particularly the culture and heritage that could be more challenging to sell as compared to other tourism product.

The content that shows online experiences and narrative talents to entice the audience is important to the platform. The programme is unusual in that it invites tourism providers to join in order to promote the abundance of local touristic items that the country has to offer. Furthermore, the programme is available to the general public to present any positive experience, skill, or workshops they may have. The content to be showcased online must be created by the local host, and your virtual product will be listed for anybody to examine for a reasonable cost.



Figure 1: Malaysia Virtual Experience (source: <https://www.facebook.com/myvxp>)

As of late October 2020, MyVXp (see figure 1) had successfully on boarded 600 Malaysia hosts, including Kofkina (<https://www.kofkina.com>) and Explore Malaysia Virtually (<https://www.exploremalaysiavirtually.com>) (Tourism Productivity Nexus, n.d.; The Star Online, 2020a). Tourists can search any collaborative platform for a local host with activities or a destination of interest. They will also handle online bookings for local hosts' online activities and communicate with tourists via live sessions. When the booked sessions go live on platforms like Microsoft Teams, Google Meet or Zoom, or even Facebook Live, to mention a few, tourists will need to log in via their phone or any device to enjoy the online experience with the hosts. Because most of the exhibits are real-time, visitors can interact with the hosts while viewing. Imagine interacting with live Malaysian presenters or guides for an hour online doing whatever you want, whether it's a tour of a place you'd like to visit but can't, a talk about a burning historical question you want to know, or an on-screen workshop to showcase a craft you like or even cook a new dish. You may enjoy the entire event from the comfort of your own home.

So far, it has delivered more than 90% on the total satisfaction score based on the performances and delivery of online experiences (The Star Online, 2020b). According to the replies from visitors to the showcases, as noted by a virtual tourist who expressed how much she enjoyed learning through the virtual

experience. She benefited from the showcase. "This on-site virtual tour provides a one-of-a-kind experience; I thoroughly enjoyed it." It was as if I had been transported to the lovely Morten village. Shaukani kept it lively by describing the magnificent residences, herbs in the garden, traditional dress, and so much more. I liked how he interacted with the villagers on the route, and it made me feel like I was walking beside him. There was even some "virtual" cooking and food tasting, which appeared to be great! I took notes on the kuih recipe presented throughout the tour so that I might try it myself. Excellent trip, both instructive and entertaining; highly recommended!" (Explore Malaysia Virtually, n.d.; Reviewer 1).

Similarly, one virtual traveler voiced his happiness and enjoyment with the local host's approach, saying, "The format of the experience was super excellent and interactive." Tajuddin used amusing quizzes to convey culture, food, and traditions. I was surprised by how nicely he blended introducing his nation and allowing the attendees have fun. I would strongly suggest this vacation to anyone interested in experiencing Malaysian culture with friends and family, as well as single travelers like myself!" (n.d., Reviewer 2, Explore Malaysia Virtually).

Another virtual tourist praises her encounter, saying, "A fantastic first-hand experience of virtually getting to know Malaysia." The seminar was interactive, with participants acquiring culturally rich knowledge about Malaysia through a low stakes entertaining quiz game. My experience was enhanced by the presence of my 12-year-old daughter" (Reviewer 3, Explore Malaysia Virtually, n.d.).

It has indeed aided in getting the firm up and running, but not at full pace. It is also a source of revenue for industry participants because most virtual showcases charge a nominal fee ranging from RM15 to RM50, depending on the subject, intricacy, and demand. Santai with Fredo, the Untold Beauty of Semporna, Santika Musical Sing-Ang-Klong, back to nature with Min House Camp, Oil Painting with Aishah, and Negeri Sembilan: Where Women Rule the Clan are among the pioneer ten showcases that have generated revenue ranging from RM 800 to RM 1200 per one-hour show (Tourism Productivity Nexus, n.d.). Imagine if one presenter could produce ten showcases per month for a crowd of 30 people at RM30 per ticket. These fees result into RM9000 in revenue for the virtual experience's host.

III. Conclusion

Culture and heritage tourism is one of the oldest form of travelling. The advancement of digital technology has made a significant change on how we deal with cultural tourism preservation and promotion. Based on reviews of content of the various documents, interviews and social media platforms of the industry players and the tourists focusing on Malaysia's experience, this paper discussed how application of technology benefiting tourism industry in Malaysia. Emerging technologies, such as virtual reality (VR), have had an impact on both the tourism supply-side and tourist behaviour. VR may be used for tourism development in developing countries, but its acceptance should be contingent on the country's receptivity and readiness. While the use of VR in the pre-travel and on-site phases is becoming more prevalent, VR is yet to create more real tourism experiences and increase the sense of presence.

Due to the challenges and benefits of VR, its application in Malaysia is currently limited. It is frequently offered at large corporations or tour operators, and its application is limited to the attraction location. Instead of using immersion VR, Malaysian tourism players use technology platforms to provide a virtual experience called MyVXp. It has successfully moved the tourism sector forward and helped many people, not only tourism operators but also ordinary people who have great content to share. Travelling allows for social and cultural contacts that are not possible with today's technology. Social connections and collaborative spaces, which are important in tourism experiences, will be limited in the VR experience. To summarise, virtual reality (VR) can be an alternate sort of tourism or a technique to enhance travel experiences through technological innovation, but it cannot replace physical travel.

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