

## ADOPTING NEW MANAGEMENT TECHNOLOGIES FOR BETTER TOURIST EXPERIENCES IN MALAYSIA'S TOURISM SECTOR

Zamri Bin Osman<sup>1</sup>, Juhanita Jiman<sup>2</sup>, Salamiah Muhd Kulal<sup>3</sup>

Correspondence address: [salamiah.kulal@unimy.edu.my](mailto:salamiah.kulal@unimy.edu.my)

University Geomatika Malaysia, Kuala Lumpur, Malaysia<sup>1</sup> University Malaysia of Computer Science and Engineering/Senior Lecturer, Petaling Jaya, Malaysia<sup>2</sup>, University Malaysia of Computer Science and Engineering/Associate Professor, Petaling Jaya, Malaysia<sup>3</sup>

### ABSTRACT

*The effect of Augmented Reality (AR) and Virtual Reality (VR) on the Malaysian tourism business is looked into in this study. With tourism at the forefront of this digital transformation, AR and VR have emerged as revolutionary forces, revolutionising a wide range of businesses. While Virtual Reality immerses viewers in a virtual environment, Augmented Reality enhances real-life experiences by superimposing digital information on top of the physical world. The entire visitor experience—from planning and booking to on-site exploration and post-trip comments—has been changed by AR and VR. While virtual reality (VR) technologies offer deep participation in several exciting activities and provide a fascinating insight into the destination's attractions, augmented reality (AR) applications enhance the tourist experience by giving interactive maps, historical insights, and real-time translations.*

**Keywords:** Emerging Managemet , Technology; Tourism Experiences

### INTRODUCTION

Conventional tourism has long played a significant role in human society by providing a range of advantages like personal enrichment, economic generating, and cultural exchange. But with the advent of virtual reality (VR) and augmented reality (AR) technologies, the travel industry is changing significantly. Through immersive experiences, cultural heritage preservation, language barrier resolution, and support for sustainable tourism practices, AR/VR integration holds promise for growing Malaysia's traditional tourism industry.

When AR and VR are combined, tourists can have immersive experiences that let them virtually explore historical and cultural sites before they visit. This can help visitors make their visit more meaningful by helping them learn about the significance and history of these areas before they visit. AR applications, for instance, can offer virtual tours of George Town, Penang, which is recognised by UNESCO. This enables visitors to interact with virtual guides and discover the history of the city (Khoo et al, 2015). Virtual reality (VR) has the potential to

create virtual galleries and museums that present Malaysia's past and culture to a worldwide viewership.

Moreover, AR and VR can support the preservation and promotion of Malaysia's cultural legacy. Without causing harm, travellers can visit more environmentally and culturally sensitive sites thanks to virtual tours and activities. AR/VR can also be used to create digital archives of cultural locations and artefacts, saving them for future generations.

Language barriers can be a major problem for visitors. Nonetheless, AR/VR can assist in overcoming these obstacles by offering translation apps and virtual language immersion experiences (Ercan, 2020). With the use of AR translation apps, travellers from all over the world will find it easier to access Malaysia by interpreting conversations, menu items, and street signs in real-time. Virtual reality (VR) may also offer virtual language immersion experiences, which can help travellers become more aware of other cultures before their journey.

Green tourism strategies can also be supported by AR/VR integration. By providing virtual substitutes for in-person experiences, AR/VR can help reduce the negative environmental effects of excessive tourism on delicate ecosystems (Bec, Moyle, Schaffer, & Timms, 2021). For instance, visitors can virtually explore Malaysia's stunning rainforests and witness animals in its natural settings, eliminating the need for in-person travel that could upset nearby ecosystems.

## BACKGROUND PROBLEM

Malaysia's Malaysia's tourism industry is keen to set itself apart from rivals in the international tourism arena and draw more tourists to both well-known and lesser-known destinations. One of the challenges facing Malaysia's tourism sector is the need to provide tourists with engaging and distinctive experiences.

More and more travellers are searching for unique, personalised experiences that go beyond traditional travel. They want to have a genuine connection with the environment, history, and culture of the area. Conversely, conventional methods of disseminating knowledge and experiences could not always meet these evolving needs. Kumlu and Zkul, 2019)

Traditional methods of providing information and experiences in the tourism sector, such as brochures, audio guides, and tour guides, have limits when it comes to interaction and involvement. Frequently, they display information that is generic and static, possibly not tailored to the individual interests and preferences of travellers. Moreover, the tourism sector in Malaysia faces the challenge of drawing more tourists to both popular and lesser-known locations. While popular tourist spots like Kuala Lumpur and Langkawi attract a lot of tourists, Malaysia also offers many more alluring, unexplored, and culturally rich areas.

Travellers frequently lack understanding of these hidden gems, which puts them at risk of missing out on the special experiences these locations have to

offer. Furthermore, Malaysia's tourism sector needs to set itself apart from rivals in the international tourism market (Grundner & Neuhofer, 2021). With the development of AR and VR technology, Malaysia's tourism sector now can use these innovations to solve these issues and enhance visitor experiences.

## METHODOLOGY

In order to investigate and evaluate recent academic publications, industry papers, case studies, and other pertinent materials about AR and VR applications in Malaysia's tourist sector, this research employs a methodical literature review approach. The primary procedures used in the study are listed below:

1. *Identification and Selection of Sources*: Utilising electronic databases and relevant platforms to obtain scholarly articles, industry reports, case studies, and other sources related to AR/VR in Malaysian tourism.
2. *Inclusion and Exclusion Criteria*: Establish criteria to include peer-reviewed articles, conference papers, and reports published within the last decade, in English, providing insights into the usage, challenges, impact, and prospects of AR/VR technologies in Malaysian tourism.
3. *Data Extraction and Synthesis*: Systematically extracting pertinent information from selected sources and organizing it using a data extraction form. Conducting thematic and content analysis to identify recurring themes, patterns, and gaps in the literature.
4. *Quality Assessment and Critique*: Evaluating the credibility, validity, and relevance of the selected literature, critically assessing methodological rigour, theoretical frameworks, strengths, and limitations of each source.

*Synthesis of Findings*: Synthesizing the reviewed literature's findings by organizing extracted information into coherent themes and categories, employing comparative analysis and narrative synthesis to present an overview of the current state of AR/VR applications in Malaysian tourism.

## LITERATURE REVIEW

Malaysia's tourist sector makes a substantial economic contribution to the nation. The WEF Travel and Tourism Competitiveness Report 2017 (WEF, 2017) states that 574,182 jobs were created by tourism in Malaysia in 2017, contributing 4.4% of the country's GDP, or US \$13,004.3 million. The swift progress of technology, namely in the domains of Augmented Reality and Virtual Reality, has created novel opportunities for augmenting the way travellers see and interact with travel locations. Applications of augmented and virtual reality (AR/VR) have become more popular across several industries, including travel

and tourism (Yerden & Uydaci, 2022).

The history of Malaysian tourism is intriguing, as it has transitioned from conventional to modern digital applications. The digital era has had a significant impact on Malaysian tourists. According to Adeyinka-Ojo, Lee, Abdullah, and Teo (2020), Malaysia has long attracted tourists with its natural scenery, customs, and rich cultural legacy. Malaysia has long been a popular travel destination, offering a range of experiences to visitors, from witnessing the rich customs of its indigenous peoples to showing the beauty of its immaculate beaches and tropical rainforests.

The potential for transforming the way tourists experience destinations is enormous when AR and VR technology are integrated into Malaysia's tourism industry. The integration of AR and VR technologies in the tourism sector can improve user experience and increase tourist satisfaction, according to several sources, including "How the travel industry can use eCommerce to its advantage" and "5 e-commerce tips". AR and VR applications have the potential to capture travellers and create a lasting impression by providing a more immersive and engaging experience (Moiseeva, 2019).

It is recommended that scholars working in the travel and tourism field reconsider methods for revitalising and advancing travel to Malaysia by adopting creative ideas. utilising social media's broad influence, the current technology transformation, and the many benefits of AR and VR to provide novel and inventive opportunities. The use of smart tourism concepts has the potential to have a major impact on the economy as well as the tourism industry, directly influencing GDP growth in the nation. Moreover, the integration of augmented reality and social media in tourism promotion enhances Malaysia's appeal as a technologically advanced location. This makes it possible to present the nation genuinely and gives prospective travellers the freedom to peruse a variety of films, pictures, and opinions of the location before making the trip. (Younus, Ekmeil, Alkhawaja, & Abumandil, 2022).

Travellers' exploration and interaction with destinations are being revolutionised by AR and VR technologies. By superimposing digital data over the actual environment, augmented reality (AR) offers travellers interactive guides, maps, and historical context. Travellers may virtually explore destinations before making travel plans thanks to virtual reality's immersive simulations of them. These technologies have the potential to reduce crowding and congestion in well-known tourist locations while simultaneously educating tourists about the environment and local cultures (Neuburger, Beck, & Egger, 2018).

AR is being used in many different contexts to enhance the tourist experience. According to Gretzel, Werthner, & Koo (2015) and Xiang, Fesenmaier, & Gretzel (2017), augmented reality apps, for instance, can provide travellers with interactive maps and guides that highlight areas of interest, provide historical context, and offer real-time translation services. This can enhance

visitors' comprehension and appreciation of the locations they visit, and augmented reality apps can be utilised to provide real-time translation services to travellers, doing away with the need for interpreters and hard copy guidebooks (Gretzel, Werthner, & Koo, 2015). This can foster mutual understanding across cultures and decrease the negative environmental effects of tourism. Virtual reality experiences can also be used to promote ecotourism and cultural tourism, encouraging travellers to choose environmentally friendly destinations (Gretzel, Werthner, & Koo, 2015).

Moreover, gamified experiences that enhance and entertain the journey can be created with AR. AR scavenger hunts can help visitors learn about different aspects of a culture, while AR treasure hunts can be used to guide tourists around a city or historical site. This will make travel more enjoyable and memorable for visitors (López-Bentez & Buhalis, 2017).

Conversely, the tourism sector is changing as a result of the use of virtual reality (VR). For instance, virtual reality experiences can transport travellers to other parts of the globe, enabling them to virtually investigate locations before making travel plans (Buhalis & Amaranggana, 2014; Pearce, 2018). This can help travellers plan their trips more intelligently and prevent disappointment when they arrive at their destination.

With VR, it is also possible to create immersive simulations of sports like skiing, scuba diving, and hiking. Despite their inability to engage in certain activities, this enables travellers to encounter locations in fresh and intriguing ways (Gretzel, Werthner, & Koo, 2015).

Use the following model for an in-text citation (i.e., no more than three lines). When given multiple definitions, dictionary users typically select the first one, according to Tono (2001: 161). The text needs to be enclosed in quotation marks when it is a direct quotation.

## FACTORS AFFECTING TOURIST EXPERIENCES IN THE MALAYSIAN TOURISM

To properly comprehend the potential effects of AR and VR apps on the tourism sector in Malaysia, it is imperative to assess the factors that presently shape the experiences of tourists in Malaysia. Several things can affect Malaysian tourism experiences. Among these are:

1. *Safety and Security*- The safety and security of tourists is a critical factor that can impact their experiences in Malaysian tourism. Ensuring the safety and security of tourists is essential to provide them with a positive and enjoyable experience. Osman, et al (2023) highlight the significance of safety and security issues in the tourism industry in Malaysia. This factor becomes particularly relevant when considering the global pandemic situation where health and safety concerns are heightened.

2. *Cultural Communication and Language Barriers*- Cultural communication plays a crucial role in enhancing tourist experiences in Malaysia. Effective communication between tourists and locals is essential for a fulfilling tourism experience. Sulong et al (2023) emphasise the importance of cultural communication and overcoming language barriers in the Malaysian tourism industry.
3. *Accessibility and Infrastructure*- The accessibility of tourist destinations and the availability of well-developed infrastructure can greatly impact tourist experiences in Malaysia. Access to transportation, accommodations, and tourist attractions is crucial for providing a seamless and enjoyable experience for tourists. Biswas et.al (2020) stress the significance of improving accessibility and infrastructure in the Malaysian tourism industry. The ease of access and quality of infrastructure in terms of transportation systems, accommodations, and tourist attractions are crucial factors that determine the overall experience of tourists in Malaysia.
4. *Natural and Cultural Attractions*- The natural and cultural attractions offered by Malaysia are key factors that contribute to tourist experiences. The diverse natural landscapes, rich cultural heritage, and historical sites in Malaysia attract tourists from around the world. Dey et. Al (2020) highlights the significance of natural and cultural attractions in attracting tourists to Malaysia.

## HOW AR AND VR CAN TRANSFORM THE MALAYSIAN TOURISM INDUSTRY

AR and VR applications have a lot of potential in the tourism industry. Visitors' comprehension and appreciation of the locations they visit can be enhanced by using augmented reality (AR) to obtain accurate and visceral local information (Shih & Chen, 2020). Augmented Reality (AR) can superimpose historical context, fascinating trivia, and interactive elements on actual environments, providing visitors with a richer and more contextualised experience. On the other hand, virtual reality (VR) offers an immersive experience that lets users explore and navigate virtual landscapes that mimic actual tourist destinations. Visitors can virtually visit locations that would otherwise be unreachable or challenging, including remote or vulnerable locales.

**Figure I:** Wild Immersion Virtual Reality Experience at Penang Hill



Using AR and VR technology in tourism can serve as a teaching and training tool for visitors in terms of safety and security (Moiseeva, 2019). For example, virtual reality simulations can be used to inform tourists about local traditions, customs, and cultural practices before they visit. This improves cross-cultural understanding and ensures that visitors are respectful and well-prepared when interacting with the community. By providing real-time information on dangers and emergency protocols, augmented reality and virtual reality can enhance tourist safety and security. By overlaying safety information onto the actual world, augmented reality apps help visitors become more aware of their surroundings. VR can be used to provide immersive training sessions where tourists can learn emergency protocols in a safe environment.

**Figure 2:** UMS and Sabah Cultural Board Use AR to showcase Sabah culture.



The tourism sector can benefit from enhanced interaction and communication between visitors and their environment through the usage of AR and VR. With the use of these technologies, visitors can engage with virtual three-dimensional objects or sceneries, increasing the immersion and interactive nature of the experience (Shih & Chen, 2020). For example, real-time information

about locations of interest, directions, and suggestions can be obtained through virtual tour guides, interactive maps, and digital signs. This not only makes travel experiences more convenient and accessible but also gives travellers a preview of what to expect when they travel to Malaysia, which increases their interest and desire to go there. Additionally, by utilising virtual previews, the tourism industry may utilise AR and VR to market and increase awareness of tourist destinations.

**Figure 3:** Digi, Malaysia Airports and Panorama Langkawi bring tourism to life through VR



With the use of virtual reality (VR), travel locations can be created in a realistic and immersive manner, giving prospective visitors a chance to experience the location before committing to go (Yerden & Uydaci, 2022). Virtual reality (VR) offers previews and tours that can assist travellers in making more informed decisions. Moreover, traveller connections could become more international thanks to AR and VR technologies. Through the use of augmented reality apps and virtual reality platforms, travellers may engage and share their experiences in real time with people from all over the world, creating a sense of connection and community.



**Figure 4:** Welcome to Penang VR Initiative



While younger generations like Millennials and Generation Z are known to seek unique and immersive experiences, integrating AR and VR technology into the tourist industry might also help draw in and keep these consumers. The technologies provide tailored and interactive travel experiences that align with the inclinations and anticipations of younger tourists. It is important to stress, though, that there may be obstacles to the acceptance and use of AR and VR in the tourism industry, especially in rural or less developed areas with restricted access to technology and internet connectivity. Furthermore, smaller tourism businesses or places with limited resources may find the price of incorporating AR and VR technologies to be prohibitive.

As technology develops and becomes more widely available, the potential advantages of AR and VR in the tourism industry cannot be understated (Handbook of Technology Application in Tourism in Asia, 2022). VR and AR have become important technologies that could significantly enhance Malaysian tourism experiences. Because AR and VR technologies offer immersive and interactive experiences that surpass traditional sightseeing, they have the potential to revolutionise the way tourists discover and engage with destinations.

One of the main advantages of AR and VR technologies in the tourist sector is their ability to provide travellers with clear and comprehensive local information (Shih & Chen, 2020). Augmented Reality (AR) has the potential to give visitors up-to-date information about historical buildings, restaurants, attractions, and other places of interest by overlaying pertinent details on actual items. Their understanding and appreciation of the location are enhanced as a result. Additionally, virtual tours and simulations of tourist destinations can be provided by AR and VR technologies, enabling travellers to explore and experience a region before visiting it.

Using AR and VR technology, tourism organisations may create virtual experiences that closely mimic real-life encounters, giving visitors an idea of what to expect and encouraging them to visit in person. Moreover, the utilisation of AR and VR technology holds promise for enhancing interaction and communication between travellers and their locations. With the use of these technologies, it would be possible to communicate virtually with local guides who can offer advice and recommendations in real-time. Virtual reality (VR) allows travellers to explore a place from the comfort of their own homes. This is especially helpful for those who are unable to travel for several reasons or have limited mobility. Moreover, the application of AR and VR technology can help get around limitations brought on by inadequate internet connectivity.

In remote or vulnerable locations with poor internet connections, AR and VR technologies can also offer offline content that can be accessed without the need for an internet connection. This guarantees that even in situations where internet access is scarce, visitors will be able to obtain the information they need and enjoy engaging in activities.

Additionally, Malaysians may benefit from the marketing and promotion of tourism through AR and VR technologies. These tools, including VR and AR apps, can be leveraged to create engaging and interactive marketing content. By showcasing Malaysia's unique attractions and experiences, these media can give prospective visitors a sense of what to expect. Moreover, travellers can be instructed and guided by AR and VR technology (Moiseeva, 2019). Tour guides can enhance their knowledge and abilities by using AR and VR to provide training simulations that help them get familiar with the area. Moreover, virtual guides with dynamic and interesting material might be created for travellers using AR and VR technologies.

## **DIFFICULTIES AND IMPERFICACES WITH AR AND VR IN THE MALAYSIAN TOURISM SECTOR**

For AR and VR to be successfully integrated and accepted, several difficulties related to their implementation in Malaysia's tourism industry must be resolved. Preparing the infrastructure is one of the biggest concerns. For these technologies to function effectively, there needs to be sufficient technological infrastructure available at all of Malaysia's numerous tourist destinations, including high-speed internet connectivity and suitable devices. Moreover, creating AR and VR content, especially for the Malaysian tourism sector requires a substantial financial commitment. Part of this is developing immersive, culturally relevant experiences that showcase Malaysia's distinctive features, past, and rich cultural legacy.

Smaller tourism businesses and facilities may find the cost of integrating AR and VR technologies to be prohibitive, necessitating financial support or incentives to encourage their adoption. More acceptance among tourists also

depends on guaranteeing user accessibility, addressing potential privacy and data security issues, and educating users about AR/VR experiences. To fully realise the promise of AR and VR for enhancing visitor experiences in Malaysia, government authorities, tourism groups, technology developers, and participants in the country's tourism industries must collaborate to overcome these obstacles.

There are several issues with using AR and VR in tourism that need to be resolved. Travellers may become too optimistic because of these technologies, for example, after taking a virtual reality hotel room tour, which could leave them disappointed when they get there. Additionally, the addictive qualities of AR and VR could encourage excessive gadget use, depriving visitors of the chance to truly experience the "taste" of the local way of life and attractions. Additionally, because these devices are so immersive, they may keep passengers apart from their friends and family, limiting opportunities for contact and shared experiences and detracting from the overall travel experience.

## CONCLUSION

Emerging technologies like AR and VR are having an impact on the travel and tourism sectors globally, including in Malaysia. With the help of these technologies, travel obstacles can be removed, visitor experiences can be enhanced, and Malaysian tourism can be promoted. Because AR and VR offer immersive and engaging experiences, they can transport visitors to the heart of Malaysia's distinctive culture and breathtaking landscapes. Travellers can learn about historical places, natural wonders, and cultural customs entertainingly and engagingly by using augmented reality (AR) apps to superimpose digital information on the actual surroundings. Virtual reality (VR) experiences can transport tourists to both accessible and inaccessible locales, such as Taman Negara and Mulu National Park, as well as major tourist destinations like Langkawi and Penang Historical City. Travel restrictions can also be overcome with the use of AR and VR. Even travellers with limited internet access can learn about Malaysian attractions via augmented reality apps. Through virtual reality experiences, travellers who are unable to travel or have mobility challenges can still take in Malaysia's natural beauty. Moreover, Malaysian tourism can be marketed and promoted with AR and VR. Though there are some potential drawbacks, like the expense of creating and implementing AR and VR applications, accessibility problems, technological difficulties, and privacy and security concerns, AR and VR have the potential to completely transform the Malaysian tourism business. To overcome these obstacles and guarantee that AR and VR are used responsibly and ethically, the Malaysian government and the travel and tourism sector should collaborate. The tourism sector in Malaysia could be revolutionised by AR and VR, but there are also several potential downsides, such as the expense of creating and deploying AR and VR apps, accessibility problems, technical difficulties, and

privacy and security concerns. To solve these problems and guarantee that AR and VR are used sensibly and ethically, Malaysia's government and the travel and tourism sector should work together.

## REFERENCES

- Abumandil, M., Ekmeil, F. A. R., Younus, A. M., & Alkhawaja, M. I. (2022). Mobile augmented reality elements and social media usage on smart tourism in Penang: Malaysian. *ECS Transactions*, 107(1), 10935.
- Adeyinka-Ojo, S., Lee, S., Abdullah, S. K., & Teo, J. (2020). Hospitality and tourism education in an emerging digital economy. *Worldwide Hospitality and Tourism Themes*, 12(2), 113-125.
- Bec, A., Moyle, B., Schaffer, V., & Timms, K. (2021). Virtual reality and mixed reality for the second chance tourism. *Tourism Management*, 83, 104256.
- Biswas, C., Omar, H., & Rashid-Radha, J. Z. R. R. (2020). THE IMPACT OF TOURIST ATTRACTIONS AND ACCESSIBILITY ON TOURISTS'SATISFACTION: THE MODERATING ROLE OF TOURISTS'AGE. *Geo Journal of Tourism and Geosites*, 32(4), 1202-1208.
- Buhalis, D., & Amaranggana, A. (2015). Smart tourism destinations enhancing tourism experience through personalisation of services. In *Information and Communication Technologies in Tourism 2015: Proceedings of the International Conference in Lugano, Switzerland, February 3-6, 2015* (pp. 377-389). Springer International Publishing.
- Dey, B., Mathew, J., & Chee-Hua, C. (2020). Influence of destination attractiveness factors and travel motivations on rural homestay choice: the moderating role of need for uniqueness. *International Journal of Culture, Tourism and Hospitality Research*, 14(4), 639-666.
- Ercan, F. (2020). An examination on the use of immersive reality technologies in the travel and tourism industry. *Business & Management Studies: An International Journal*, 8(2), 2348-2383.
- Gretzel, U., Werthner, H., Koo, C., & Lamsfus, C. (2015). Conceptual foundations for understanding smart tourism ecosystems. *Computers in Human Behavior*, 50, 558-563.
- Gössling, S. (2002). Global environmental consequences of tourism. *Global environmental change*, 12(4), 283-302.
- Grundner, L., & Neuhofer, B. (2021, March 19). The bright and dark sides of artificial intelligence: A futures perspective on tourist destination experiences. *Journal of Destination Marketing & Management*
- Khoo, S. L., Samat, N., Badarulzaman, N., & Dawood, S. R. S. (2015). The promise and perils of the island city of George Town (Penang) as a creative city. *Urban Island Studies*, 1(1), 20-34.
- Lian, J. C. K. (2020). Developing rural tourism through co-creation of sustainable tourist experiences. In *The Routledge Handbook of Tourism Experience*

- Management and Marketing (pp. 473-484). Routledge.
- López-Benítez, M., & Buhalis, D. (2017). Augmented reality in tourism: A state-of-the-art review. *Tourism Management Perspectives*, 24, 65-77.
- Moiseeva, V. Y., Lavrentyeva, A. V., Elokhina, A. K., & Moiseev, V. I. (2019). AR and VR technologies as a factor of developing an accessible urban environment in tourism: Institutional limitations and opportunities. *International journal of engineering and advanced technology*, 8(6), 5313-5317.
- Mustapha, F., Ismail, F., Muda, M. K. H., Na'im Abdullah, M., Yaakob, M. S., & Kadir, M. N. (2021). "New Normal" Conceptual Approach; Augmented Reality (Ar) Tourism In Terengganu. *BIMP-EAGA Journal for Sustainable Tourism Development*, 10(1), 75-83.
- Neuburger, L., Beck, J., & Egger, R. (2018). The 'Phygital' tourist experience: The use of augmented and virtual reality in destination marketing. In *Tourism planning and destination marketing* (pp. 183-202). Emerald Publishing Limited.
- Osman, Z., Othman, F. I., Musa, N., & Richard, C. M. (2023). Exploring the Relationships among Image, Perceived Value, Satisfaction, and Loyalty among Tourists in Homestay Tourism Sector. *International Journal of Academic Research in Business and Social Sciences*, 13(8), 1294-1308.
- Pearce, D. (2018). Virtual reality and tourism: A review of the literature. *Tourism Management Perspectives*, 25, 171-179.
- Reisinger, Y., & Turner, L. W. (2010). *Cultural tourism*. Routledge.
- Shih, N., & Chen, Y. (2020, October 1). LiDAR- and AR-Based Monitoring of Evolved Building Façades upon Zoning Conflicts.
- Sulong, K. N. S. K., Sabri, M., Wong, V., & Rosli, N. A. (2023). ENGLISH ORAL PROFICIENCY AND TOURISM ENTREPRENEURSHIP: IDENTIFYING AND OVERCOMING CHALLENGES. *Practitioner Research*, 5, 125-141.
- World Economic Forum (WEF). 2017. The Travel & Tourism Competitiveness Report2017.[https://www3.weforum.org/docs/WEF\\_TTCR\\_2017\\_web\\_0401.pdf](https://www3.weforum.org/docs/WEF_TTCR_2017_web_0401.pdf)
- Xiang, Z., Fesenmaier, D. R., & Gretzel, U. (2017). Augmented reality applications for tourism: A systematic literature review. *Tourism Management Perspectives*, 23, 68-80.