

METaverse: A PROMISING FUTURE FOR THE TOURISM INDUSTRY AND MSMEs POST-COVID-19 PANDEMIC

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Abstract

This study begins by explaining the tourism industry during and after COVID-19 and explaining the metaverse concept, including how it transforms the tourism industry and MSMEs. This study proposes a literature method to provide a rationale for the issue. The data was collected mainly through written evidence such as documents, journal articles, scholarly books, research reports, and online websites. Then the content analysis was used for analysing the data. Despite research's expansion on metaverse attributes, the notion of metaverse related to the tourism industry and MSMEs need to be observed more. This study notes that the use of metaverse in the tourism industry and MSMEs has many benefits. It revolutionises the tourism industry and offers new sales channel for small business owners.

Keywords: COVID-19, metaverse, MSMEs, the tourism industry

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INTRODUCTION

COVID-19 Pandemic impacts the economy and tourism industries. In 2021, there was a significant loss in the arrival of international tourists at around seven-tenths (72%) (Go & Kang, 2022). It reflects in the number of tourists visiting Indonesia. According to the data collected from EGSA UGM (2021), there was a significant decrease in local and foreign tourists. The total number of foreign tourists visiting Indonesia in 2020 was around 4.02 million visits, which decreased by 75.03 percent compared to 2019. Similarly, the number of local tourists fell to around three-fifths (61%) in 2020 than 2019. The significant decline in tourist numbers impacts economic environments because tourism contributes enormously to national income, foreign exchange, and employment (EGSA UGM, 2021).

Undeniably this situation has also affected Micro, Small, and Medium Enterprises. Surveys from several institutions (BPS, Bappenas, and the World Bank) showed that in the aftermath of the pandemic, many MSMEs have been unable to pay off their loans, electricity, gas, and employee salaries (Kemenko Perekonomian, 2021). Some of them had to do layoffs (Kemenko Perekonomian, 2021).

In addition, many MSMEs have faced obstacles to obtaining raw materials, capital, a decline in the number of customers, and difficulty in distribution and production processes (Kemenko Perekonomian, 2021). However, as the pandemic subsides, efforts are needed to recover tourism industry after the COVID-19 pandemic. Indonesia's government is trying to develop its digital ecosystem to support the tourism industry and sustain MSMEs, called WonderVerse Indonesia. WonderVerse Indonesia is a digital interactive channel for promoting tourism and Indonesia's creative economy (Tempo, 2022). A growing focus and investment in the metaverse are closely related to the advancement of internet technology made the tourism sector start to adapt and glance at the potential of metaverse space (Pratt, 2022). Metaverse is an opportunity to create a sustainable and adaptive tourism industry with digitalization development (Pratt, 2022).

Currently, several papers on the metaverse have been published. Um et al. (2022) issued a study about the use of metaverse as a tool to develop smart-tourism cities. This article introduced how the concept of metaverse supports the creation of a smart-tourism city by considering the connection between smart-tourism and this digital sphere. Go and Kang (2022) proposed a study defining metaverse tourism for sustainability development. This paper showed that the use of metaverse in the tourism industry may increase profitability for tourism destinations. Metaverse products and experiences can contribute to sustainable tourism by providing alternative and profitable resources for tourists. The above-mentioned articles certainly explain the concept of the metaverse and its link to tourism and guide subsequent metaverse research. However, little study has shed light on the details of Metaverse development as a tool to strengthen the tourism industry and MSMEs post-COVID-19. Therefore, focusing on the above situation, this article aims to review the importance of Metaverse for the improvement of the tourism industry and the sustainability of Micro, Small, and Medium Enterprises after COVID-19.

METHODOLOGY

This study has the objective of understanding the use of Metaverse. This study investigated the potential of the metaverse for sustaining the tourism industry ecosystem and MSMEs through the literature review method. A literature review is a study that uses materials such as documents, journal articles, scholarly books, research reports, online sources, media release, and government report to search and gathers information and then report the findings (Chirisa et al., 2020; de Falco et al., 2018; Gegung, 2021; Supriyanto, 2022; Xiao & Watson, 2019). The purpose of the literature reviews is to provide an overview of an issue or research problem and to provide a rationale for the issue (Snyder, 2019).

The data was collected mainly through written evidence such as documents, journal articles, scholarly books, research reports, and online websites which highlighted the idea

of Metaverse and tourism and the use of this artificial intelligence during and post-COVID-19 as well as the use of metaverse for strengthening MSMEs. Then the content analysis method was used for analysing the data. A content analysis aims to organize and interpret data collected to draw realistic conclusions (Bengtsson, 2016). Qualitative data can be analysed using content analysis to determine the presence of certain words, themes, or concepts (Elo et al., 2014). The purpose of content analysis is to quantify the presence, meaning, and relationships among specific words, themes, or concepts in the text. Specifically, focusing on interpreting and understanding the idea of a metaverse in the realm of the tourism industry. Hence, using this method may nuance the notion of Metaverse tourism as a promising future to sustain the tourism industry and strengthen MSMEs post-COVID-19 pandemic.

FINDINGS AND DISCUSSION

Metaverse

The term "metaverse" combines the meaning "beyond" and the word "verse" (meaning universe), denoting the next-generation Internet in which users or avatars can interact with others in three-dimensional (3D) virtual spaces in a way that is similar to the physical world (Duan et al., 2021; Gursoy et al., 2022). The statement is emphasised by Dwivedi et al. (2022) and Um et al. (2022), who said that people experience the same social and economic environments as in the real world by using the Metaverse 3D virtual world. It allows people to express themselves through avatars, a new self that differs from their physical selves. This platform does not meet a basic human need for social interaction and provides a sense of connection. By using Metaverse, people can connect in meaningful and engaging, creating a virtual world that is just as vibrant and alive as the real one (Dwivedi et al., 2022; Um et al., 2022). Metaverse may also provide a hybrid environment where consumers can enjoy tourism products and services physically and virtually (Buhalis et al., 2023). The metaverse is expanding the next web technology and commencing boundless opportunities.

It considers a continuum that spans the range of virtual reality experiences and business structures (Srivastava, 2023). This advancement of technology has reached all aspects of business and industries. From reality to virtual. Although metaverse was founded in 1992, there seemingly has no agreement on its universal definition (Buhalis et al., 2023). Metaverse is defined as "*an immersive three-dimensional virtual world*" in which visitors may act as avatars and interact with others and software agents without its bodily limitations.

According to a study done by Buhalis and Karatay (2022), Metaverse is a continuous merging of the digital and bodily universe that utilizes ambient details in enhancing the physical sphere, products, and services. A similar statement came from Damar (2021), Sparkes (2021), and Moy and Gadgil (2022) who said that Metaverse seems like as "*a seamless convergence*" or perhaps "*the layer between you and reality*". It is because the metaverse can project three-dimensional graphics both on a screen or in virtual reality where all activities can be carried out with the help of virtual and augmented reality. Generating a merged, virtual community where visitors can work, play, relax, transact, and

socialize. Furthermore, it is explained in most metaverse definitions that the metaverse stimulates the world and provides space to interact with other virtual visitors in a significant environment (Dwivedi et al., 2022). Existing definitions mostly conceive Metaverse as the confluence of the virtual and physical universe (Buhalis et al., 2023).

Metaverse Development in the Tourism industry during and Post-COVID-19

Seeking long-lasting solutions for the tourism industry may bring a sense of adaptability and acceptability that can be useful for the tourism industry itself (Budeanu et al., 2016). Changing the tourism system without understanding wider societal transformations is not feasible, and new challenges must meet with innovative solutions (Budeanu et al., 2016). Recent phenomena such as the COVID-19 pandemic can be a notion for the tourism industry to combine its practices with digital transformations. The pandemic situation has increased the use of the Internet globally. Global internet users have climbed to 4% in 2022 (Kemenparekraf, 2022). More than three-fifths (62.5%) population of the world has reportedly been active internet users (Kemenparekraf, 2022). Our society has already transitioned into an Infinite Enterprise world (Coleman, 2022). Inadvertently, digitalization is becoming increasingly important for business growth in the tourism sector (WTTC & Microsoft, 2022, as cited in Kemenparekraf, 2022).

The pandemic has contributed to a broad acceptance of virtual environments and mixed reality experiences or Metaverse (Go & Kang, 2022). Bloomberg projects that the metaverse will be the future of the internet, with an estimated value of USD 800 billion by 2024. Then it is projected by 2026, almost a third (25%) of the world's population will spend at least one hour a day on the metaverse (Arfiansyah, 2022).

Seem like the scope of businesses has changed as it evolved from offline to website-based online. It is again expanding from website to metaverse (Um et al., 2022). For instance, many museums' websites offer metaverse tours by using 360-degree videos and augmented reality (Go & Kang, 2022). Furthermore, some tourism stakeholders have incorporated metaverse technologies into their business, like escape rooms and metaverse theme parks (Go & Kang, 2022).

The same approach is in Indonesia. Indonesia's government is trying to develop its digital ecosystem. Using the increasingly trending Metaverse technology namely WonderVerse Indonesia (Tempo, 2022).

WonderVerse Indonesia is divided into four parts or called land. It is a representation of Indonesia as an archipelagic country. In this land, there is a variety of diversity that can be enjoyed by visitors (Tempo, 2022). In the Lobby, users/visitors can interact with endemic animals and galleries of paintings from Indonesian artists. Then WonderFun Land contains various games typical of Indonesia, such as puppet shows and Indonesia's traditional dances. At WonderGoods Land, visitors can see and shop for Indonesian goods such as arts and crafts or Indonesian souvenirs and gift products, which will be marketed by tourism and creative economy players (Sasongko, 2022). Finally, WonderReal Land is where users can buy flight tickets and book hotel tickets and accommodations for various tourist sites in Indonesia (Tempo, 2022). Every WonderVerse visitor will become an avatar who can see things happening in the digital world (Susanti, 2022).

It can be seen that Metaverse has key benefits for Tourism. Metaverse may encourage visitors to try out virtual visits to some destinations on their bucket lists. For instance, travellers may obtain some beneficial information about destinations before bodily visiting those places. A single, shared, immersive, and interactive 3D virtual space can closely reproduce a physical world setting. Potential travellers may use metaverse experiences to afford information regarding prospective destination facilities and what are significant attractions available around the destination. It then may trigger their motivation to complete a reservation or perhaps purchase the product (Srivastava, 2023). With the help of Metaverse, virtual tourists may explore the world, either as a substitute for an in-person visit or as an opportunity to prepare for an upcoming trip (Gegung, 2021; Revfine, n.d.).

Furthermore, metaverse may simplify the booking procedure. In this case, metaverse tourism may significantly enhance the booking experience through some beneficial information offered. For example, hotels or attraction places may use virtual reality tours for enabling tourists to bodily roaming around hotel facilities. Giving visitors a clear or complete idea regarding the hotel's layout, room sizes, and other facilities available (Srivastava, 2023). The same can be said to travel and tour operators. A 3D virtual world can give clients a true sense of place for triggering their desire to visit. Undeniably, there is a higher possibility for a client to complete the booking instead of cancelling it (Srivastava, 2023).

The metaverse may also induce a growing number of bookings to destinations. Metaverse inspires and encourages tourists for taking a time out and become virtual visitors. The experience of the booking process through metaverse may become informative and amusing for visitors. When the customers feel good about the whole process, these people can purchase those packages and increase the booking volume (Srivastava, 2023). This statement by a study done by Yang et al. (2017) said that if a customer is happy with the whole process of the purchase experience, it may enhance a positive direct effect on their satisfaction and brand loyalty. Customers may continue engaging and purchasing the product.

Moreover, the metaverse offers historical travel experiences. It is possible for the metaverse in imitating the restoration of historical monuments or prehistoric architectures to their former gorgeousness. It enables travellers for experiencing historical life, and they might learn something from it (Srivastava, 2023). Incheon Open Port has developed its smart-tourism city with Metaverse (Um et al., 2022). According to the data collected by Um et al. (2022), Incheon Open Port introduces a metaverse service known as 'Incheon Easy' smart tourism application consisting of two main services. The first one is a Real-Based Metaverse – 'AR Incheon' and the second one is a virtual-based Metaverse (Incheoncraft).

AR Incheon is an artificial technology that will provide users with Augmented Reality navigation, including historical maps. Providing extended reality experience, such as environment-related historic figures (Um et al., 2022). Meanwhile, 'Incheoncraft' will assist visitors with virtual time travel in Incheon. Users can interact with other players as avatars in this virtual world. In 'Incheoncraft', virtual tourists might be able to experience historic events with historic figures and learn educational facts (Um et al., 2022). This

technological device feeds users with brand new sensations through travelling and exploring the world destination back in time with ease (Aidi, 2022; Alonso, n.d.).

However, some might naturally argue whether this metaverse will replace the human touch. Undeniably, using the metaverse may keep customers well-informed about the destination offers, yet many things still cannot be communicated thoroughly through this platform (Alonso, n.d.). According to Schaal Skift's senior editor, as cited in Setiawan (2022), the concept of "Metaverse" has existed for a long time. Even in recent years, companies such as Amazon and Airbnb have launched online virtual travel services to cope with the pandemic. However, still, this technology can only partially replace tourist activities in the physical sphere. Artificial intelligence enhances tourism experiential services but cannot replace the human touch, which is a key determinant of an experiential vacation. Though it will certainly change travelers' way spend on tourism products (Gursoy et al., 2022). As supported in the study by Buhalis et al. (2023) and Srivastava (2023), it is important to remember that this artificial intelligence may only partially replace travel and tourism. If used well, this tool can improve reality by presenting mesmerising experiences that allow people to experience tourism from a more diverse perspective.

The Use of Metaverse in Strengthening MSMEs in Indonesia

Not only having a positive impact on the prospects of the tourism industry. The use of metaverse may also carry benefits, especially for MSME players. MSMEs can participate in the metaverse. Quoting a statement from Gani (CEO of Grant Thornton Indonesia) as cited in Hadi (2022), "With a relatively large population in Indonesia familiar with the digital world, if only 30% are active in the Metaverse world, then there will be a high economic turnover".

MSME players who already have products in physical form can turn them into digital ones and sell those products on a Metaverse platform. It means there will be supply and demand opportunities that will not only cover digital products but also products in physical stores. MSME players may leverage their digital stores in a virtual world to promote their products and services. MSMEs that offer accommodation can arrange virtual tours and experiences while participating in real-time-conversation. Metaverse provides a powerful avenue to promote local's products and services.

Metaverse may also inspire the cocreation of virtual event experiences. Metaverse may facilitate the accessibility of online events. Various activities, such as tours, concerts, and tournaments carried out virtually may also create opportunities for MSMEs. Business players may supply merchandise, arts and crafts, and other needs products to digital ones (Hadi, 2022). It then facilitates smart shopping for potential customers (Alonso, n.d.; Buhalis et al., 2023).

Furthermore, many business players starting to offer experiences for consumers through metaverse technology. Consumers who come to a cafe, for instance, may enjoy the mountain or lake views through Virtual reality technology while sipping their coffees or teas without physically travelling to that lake or mountain (Arfiansyah, 2022). This experience may increase customer value towards the products or services offered by tourism players. Leading to an increase in visitors' purchases and brand loyalty. They can even spread positive word of mouth about how well a company's product or service meets

their expectations (Barantum, 2022; Firdiansyah, 2021). The metaverse may propose users with distinctive, personalised, and engaging experiences that significantly increase their travel experiences while at the same time may facilitate numerous activities for people that tangibly detached from events or sites. By developing significant brand experiences. Small businesses may enhance their exposure, and unforgettable experiences while remain competitive in the physical and digital markets. Small businesses around prospective destination areas can be marketed and promoted in front of a massive market of multi-millions of virtual visitors (Foo, 2022; Revfine, n.d.).

From the small businesses' standpoint, the metaverse may support MSMEs to enrich their knowledge about their consumer's needs, wants and preferences. As metaverse supports market intelligence and facilitates research and development. MSMEs may use website browsing, travel blog writing, and photo uploading by travellers to enrich their knowledge about their consumers' preferences and needs and then provide consumers with the appropriate product at the right time and place (Stylos et al., 2021).

This technological advancement is crucial as it can transform how, when, and where companies may interact with their potential buyers (Pratt, 2022). Some people believe to optimize the function of Metaverse in Indonesia. It is indispensable to have collaboration from various parties. Starting from MSME players to governments. As (Hadi, 2022) mentioned in his study, MSME players may transform their physical products into digital ones. Meanwhile, Governments may provide various supporting facilities with appropriate legal foundations to increase digital literacy for the wider community then more MSMEs may benefit from the metaverse.

CONCLUSION

Although some may argue the Challenges and threats emerging through Metaverse, the use of this technology in the tourism industry and MSMEs may carry more benefits to some extent. Virtual tourists may explore tourist destinations, either as a substitute for an in-person visit or perhaps this technology can be used as an opportunity for preparing for an upcoming visit to tourist attractions. Furthermore, in MSMEs, the metaverse can be seen as an instrument for inspiring selling and buying activities virtually. It expects that supply and demand opportunities will not only be available for products in physical stores and for digital ones. Metaverse may also enhance customer experiences and increase customers' purchases and loyalty.

The future of metaverse tourism seems bright and fascinating. This technological advancement is crucial as it can transform how, when, and where companies may interact with their potential buyers. This extended reality platform allows MSME players to deliver new experiences and offer information in innovative approaches.

REFERENCES

- Aïdi, N. (2022, August 17). Tourism and the Metaverse: Towards a Widespread Use of Virtual Travel? *The Conversation*. <https://theconversation.com/tourism-and-the-metaverse-towards-a-widespread-use-of-virtual-travel-188858>

- Alonso, P. (n.d.). *Metaverse & Travel Industry: Implications, Pros, Cons, & Examples*. Hotelmize. <https://www.hotelmize.com/blog/metaverse-travel-industry-implications-pros-cons-examples/>
- Anam, K. (2022, August 17). Kemenparekraf & Magnus Digital Ciptakan WonderVerse Indonesia. *CNBC Indonesia*. <https://www.cnbcindonesia.com/tech/20220817103754-37-364410/kemenparekraf-magnus-digital-ciptakan-wonderverse-indonesia>
- Arfiansyah, T. R. (2022, August 19). Apa Itu Platform WonderVerse Indonesia yang Dihadirkan Kemenparekraf? *Kompas.Com*. <https://www.kompas.com/tren/read/2022/08/19/092500065/apa-itu-platform-wonderverse-indonesia-yang-dihadirkan-kemenparekraf-?page=all>
- Barantum. (2022, October 3). *Kepuasan Pelanggan: Pengertian, Faktor dan Indikatornya*. Barantum.Com. [https://www.barantum.com/blog/kepuasan-pelanggan/#:~:text=Kepuasan%20pelanggan%20\(customer%20satisfaction\)%20adalah,terkait%20pembelian%20dan%20loyalitas%20pelanggan](https://www.barantum.com/blog/kepuasan-pelanggan/#:~:text=Kepuasan%20pelanggan%20(customer%20satisfaction)%20adalah,terkait%20pembelian%20dan%20loyalitas%20pelanggan)
- Bengtsson, M. (2016). How to Plan and Perform a Qualitative Study using Content Analysis. *NursingPlus Open*, 2, 8–14. <https://doi.org/10.1016/J.NPLS.2016.01.001>
- Budeanu, A., Miller, G., Moscardo, G., & Ooi, C.-S. (2016). Sustainable Tourism, Progress, Challenges and Opportunities: an Introduction. *Journal of Cleaner Production*, 111(B), 285–294. <https://doi.org/10.1016/J.JCLEPRO.2015.10.027>
- Buhalis, D., & Karatay, N. (2022). Mixed Reality (MR) for Generation Z in Cultural Heritage Tourism Towards Metaverse. In J. L. Stienmetz, B. Ferrer-Rosell, & D. Massimo (Eds.), *ENTER 2022: Information and Communication Technologies in Tourism 2022* (pp. 16–27). Springer, Cham. https://doi.org/10.1007/978-3-030-94751-4_2
- Buhalis, D., Leung, D., & Lin, M. (2023). Metaverse as a Disruptive Technology Revolutionising Tourism Management and Marketing. *Tourism Management*, 97, 104724. <https://doi.org/10.1016/J.TOURMAN.2023.104724>
- Chirisa, I., Mutambisi, T., Chivenge, M., Mbasera, M., Sidambe, M., Muchenje, B., Mukwashi, T., Mabaso, E., Ncube, R., & Zengeni, D. (2020). Scope for Virtual Tourism in the Times of COVID-19 in Select African Destinations. *Journal of Social Sciences*, 64(1–3), 1–13. <https://doi.org/10.31901/24566756.2020/64.1-3.2266>
- Coleman, D. (2022, October 13). *What Exactly is the Metaverse?* Extreme Networks. <https://www.extremenetworks.com/extreme-networks-blog/what-exactly-is-the-metaverse/#:~:text=The%20Metaverse%20is%20a%20medium,%2C%20communicate%2C%20and%20access%20information>
- Damar, M. (2021). Metaverse Shape of Your Life for Future: A Bibliometric Snapshot. *Journal of Metaverse*, 1(1), 1–8. <https://doi.org/10.48550/arXiv.2112.12068>
- de Falco, S., Angelidou, M., & Addie, J. P. D. (2018). From the “Smart City” to the “Smart Metropolis”? Building Resilience in the Urban Periphery. *European Urban and Regional Studies*, 26(2), 205–223. <https://doi.org/10.1177/0969776418783813>
- Duan, H., Li, J., Fan, S., Lin, Z., Wu, X., & Cai, W. (2021). Metaverse for Social Good: A University Campus Prototype. *MM '21: Proceedings of the 29th ACM International Conference on Multimedia*, 153–161. <https://doi.org/10.1145/3474085.3479238>
- Dwivedi, Y. K., Hughes, L., Baabdullah, A. M., Ribeiro-Navarrete, S., Giannakis, M., Al-Debei, M. M., Dennehy, D., Metri, B., Buhalis, D., Cheung, C. M. K., Conboy, K., Doyle, R., Dubey, R., Dutot, V., Felix, R., Goyal, D. P., Gustafsson, A., Hinsch, C., Jebabli, I., ... Wamba, S. F. (2022). Metaverse Beyond the Hype: Multidisciplinary Perspectives on Emerging Challenges, Opportunities, and Agenda for Research, Practice and Policy. *International Journal of Information Management*, 66, 102542. <https://doi.org/10.1016/J.IJINFOMGT.2022.102542>
- EGSA UGM. (2021, February 11). *Pariwisata di Tengah Pandemi*. EGSA UGM. <https://egsa.geo.ugm.ac.id/2021/02/11/pariwisata-indonesia-di-tengah-pandemi/>
- Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K., & Kyngäs, H. (2014). Qualitative Content Analysis: A Focus on Trustworthiness. *SAGE Open*, 4(1), 1–10. <https://doi.org/10.1177/2158244014522633>
- Firdiansyah, A. (2021, October 17). *Mempelajari Peran Penting Customer Value*. Glints. https://glints.com/id/lowongan/mempelajari-peran-penting-customer-value/#.ZBkOl_ZBy3B

- Foo, S. (2022, April 29). Tapping the Metaverse for Tourism Players. *TTG Asia*. <https://www.ttgasia.com/2022/04/29/tapping-the-metaverse-%E2%80%A8for-tourism-players/>
- Gegung, E. M. (2021). International Tourism and The COVID-19 Pandemic: The Use of Virtual Reality to Increase Tourism Destination Sustainability and How Users Perceive The Authenticity of VR Experiences. *Jurnal Kepariwisata Indonesia: Jurnal Penelitian Dan Pengembangan Kepariwisata Indonesia*, 15(1), 9–15. <https://doi.org/10.47608/JKI.V15I12021.9-15>
- Go, H., & Kang, M. (2022). Metaverse Tourism for Sustainable Tourism Development: Tourism Agenda 2030. *Tourism Review, ahead-of-print(ahead-of-print)*. <https://doi.org/10.1108/TR-02-2022-0102/FULL/XML>
- Gursoy, D., Malodia, S., & Dhir, A. (2022). The Metaverse in the Hospitality and Tourism Industry: An Overview of Current Trends and Future Research Directions. *Journal of Hospitality Marketing & Management*, 31(5), 527–534. <https://doi.org/10.1080/19368623.2022.2072504>
- Hadi, A. S. (2022, March 15). *Akankah Metaverse Menjadi Lapak Digital Bagi UMKM?* Universitas Widya Mataram. <https://kewirausahaan.widyamataram.ac.id/opini-akankah-metaverse-menjadi-lapak-digital-bagi-umkm/>
- Kementerian Koordinator Bidang Perekonomian. (2021, April 28). Dukungan Pemerintah Bagi UMKM Agar Pulih di Masa Pandemi. *Ekon.Go.Id*. <https://www.ekon.go.id/info-sektoral/15/357/berita-dukungan-pemerintah-bagi-umkm-agar-pulih-di-masa-pandemi#:~:text=Hasil%20survey%20dari%20beberapa%20lembaga,diantaranya%20sampai%20harus%20melakukan%20PHK>
- Kementerian Pariwisata dan Ekonomi Kreatif. (2022). *Buku Tren Pariwisata 2022-2023*. <https://api2.kemendparekraf.go.id/file/download/7698>
- Moy, C., & Gadgil, A. (2022). *Opportunities in the Metaverse: How Businesses can Explore the Metaverse and Navigate the Hype vs. Reality*. J.P.Morgan. <https://www.jpmorgan.com/content/dam/jpm/treasury-services/documents/opportunities-in-the-metaverse.pdf>
- Pratt, M. K. (2022, November 22). *10 Real-World Use Cases of the Metaverse, Plus Examples*. Tech Target. <https://www.techtarget.com/searchcio/feature/Examples-of-the-metaverse-for-business-and-IT-leaders#:~:text=Metaverse%20platforms%20have%20the%20potential,provide%20information%20in%20new%20ways>
- Revfine. (n.d.). *Metaverse Travel: How the Metaverse Will Change the Travel Industry*. Revfine. <https://www.revfine.com/metaverse-travel/>
- Sasongko, A. (2022, August 18). WonderVerse Indonesia, Teknologi Metaverse untuk Promosi Wisata Indonesia Dikembangkan. *Republika*. <https://news.republika.co.id/berita/rgs424313/wonderverse-indonesia-teknologi-metaverse-untuk-promosi-wisata-indonesia-dikembangkan>
- Setiawan, S. (2022, January 13). *Metaverse: Peluang atau Ancaman bagi Industri Pariwisata?* Wise Steps Consulting. <https://wisestepsconsulting.id/blog/metaverse-peluang-atau-ancaman-bagi-industri-pariwisata>
- Snyder, H. (2019). Literature Review as a Research Methodology: An Overview and Guidelines. *Journal of Business Research*, 104, 333–339. <https://doi.org/10.1016/J.JBUSRES.2019.07.039>
- Sparkes, M. (2021). What is a Metaverse. *New Scientist*, 251(3348), 18. [https://doi.org/10.1016/S0262-4079\(21\)01450-0](https://doi.org/10.1016/S0262-4079(21)01450-0)
- Srivastava, S. (2023, January 11). *Metaverse: Shaping the Future of Travel*. Appinventiv. <https://appinventiv.com/blog/metaverse-in-travel-industry/>
- Stylos, N., Zwiegelhaar, J., & Buhalis, D. (2021). Big Data Empowered Agility for Dynamic, Volatile, and Time-Sensitive Service Industries: the Case of Tourism Sector. *International Journal of Contemporary Hospitality Management*, 33(3), 1015–1036. <https://doi.org/10.1108/IJCHM-07-2020-0644/FULL/XML>
- Supriyanto, E. E. (2022). Blue Tourism: Treating Marine Ecosystems and Increasing the Potential of Maritime Tourism in Indonesia. *Jurnal Kepariwisata Indonesia: Jurnal Penelitian Dan*

- Pengembangan Kepariwisata Indonesia*, 16(2), 138–148.
<https://doi.org/10.47608/JKI.V16I22022.138-148>
- Susanti, I. (2022, August 19). Luncurkan Semesta Digital WonderVerse, Sandiaga Pacu 40 Juta Pelaku Parekraf Masuk Metaverse. *Sindonews*.
<https://ekbis.sindonews.com/read/860895/34/luncurkan-semesta-digital-wonderverse-sandiaga-pacu-40-juta-pelaku-parekraf-masuk-metaverse-1660907335>
- Tempo. (2022, August 18). Dunia Metaverse Pariwisata dalam WonderVerse Indonesia. *Tempo*.
<https://nasional.tempo.co/read/1624176/dunia-metaverse-pariwisata-dalam-wonderverse-indonesia>
- Um, T., Kim, H., Kim, H., Lee, J., Koo, C., & Chung, N. (2022). Travel Incheon as a Metaverse: Smart Tourism Cities Development Case in Korea. In J. L. Stienmetz, B. Ferrer-Rosell, & D. Massimo (Eds.), *Information and Communication Technologies in Tourism 2022: ENTER 2022* (pp. 226–231). Springer, Cham. https://doi.org/10.1007/978-3-030-94751-4_20
- Xiao, Y., & Watson, M. (2019). Guidance on Conducting a Systematic Literature Review. *Journal of Planning Education and Research*, 39(1), 93–112.
<https://doi.org/10.1177/0739456X17723971>
- Yang, K. F., Yang, H. W., Chang, W. Y., & Chien, H. K. (2017). The Effect of Service Quality Among Customer Satisfaction, Brand Loyalty and Brand Image. *2017 IEEE International Conference on Industrial Engineering and Engineering Management, 2017-December*, 2286–2290. <https://doi.org/10.1109/IEEM.2017.8290299>