

## **The Existence of The Metaverse Tourism in Indonesia: Between Opportunities and Threats**

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### **ABSTRACT**

*This research aims to determine (1) the opportunities and threats of the existence of the metaverse for tourism in Indonesia; and (2) strategy for developing Indonesian tourism through the metaverse. This research is descriptive qualitative research. This research uses a SWOT analysis regarding the existence of the metaverse for Indonesian tourism. The results of this research show that (1) the existence of metaverse tourism related to tourism experiences has the opportunity to make tourist trips more interactive and becomes a threat because it is considered less than optimal, while related to technology (internet access) the existence of metaverse tourism has the opportunity to become an innovation in tourism trends and become a threat because it is not evenly distributed internet access in Indonesia, and related to health, the existence of metaverse tourism has the opportunity to be a solution for people with disabilities because it can be long distances and is a threat due to radiation problems; and (2) Indonesian tourism development strategy based on SWOT analysis consisting of SO strategy through marketing planning for metaverse tourism as a current tourism trend, WO strategy through socializing the use of metaverse in Indonesian tourism by developing a metaverse tourism concept for tourists, ST strategy through collaboration with the Tourism Office and the private sector supports metaverse tourism, and WT strategies through education and promotion of metaverse tourism programs.*

**Keywords:** *Metaverse Tourism, Opportunities, Threats*

### **ABSTRAK**

Penelitian ini bertujuan untuk mengetahui (1) peluang dan ancaman keberadaan metaverse bagi pariwisata di Indonesia; dan (2) strategi pengembangan pariwisata Indonesia melalui metaverse. Penelitian ini merupakan penelitian kualitatif deskriptif. Penelitian ini menggunakan analisis SWOT terkait keberadaan metaverse bagi pariwisata Indonesia. Hasil penelitian ini menunjukkan bahwa (1) keberadaan pariwisata metaverse terkait pengalaman berwisata berpotensi membuat perjalanan wisata lebih interaktif dan menjadi ancaman karena dianggap kurang maksimal, sementara terkait teknologi (akses internet) keberadaan pariwisata metaverse berpotensi sebagai inovasi dalam tren pariwisata dan menjadi ancaman karena belum meratanya akses internet di Indonesia, dan terkait kesehatan keberadaan pariwisata metaverse berpotensi sebagai solusi penyandang disabilitas karena bisa jarak jauh dan menjadi ancaman karena persoalan radiasi; dan (2) strategi pengembangan pariwisata Indonesia berdasarkan analisis SWOT terdiri dari strategi SO melalui perencanaan pemasaran metaverse tourism sebagai tren pariwisata kekinian, strategi WO melalui sosialisasi pemanfaatan metaverse dalam pariwisata Indonesia dengan menyusun konsep pariwisata metaverse bagi wisatawan, strategi ST melalui kerja sama dengan Dinas Pariwisata dan pihak

swasta mendukung metaverse tourism, dan strategi WT melalui edukasi dan promosi program metaverse tourism.

**Kata kunci:** Metaverse Tourism, Peluang, Ancaman

## INTRODUCTION

Technological development has reached the metaverse stage or post-reality era. This development trend must also be welcomed and followed by stakeholders by presenting and developing metaverse tourism (Alam and Mohanty, 2022). Specifically, President Joko Widodo sees the potential for the future of digitalization in the application of the metaverse. Metaverse itself is a diction that is widely discussed internationally. This was triggered by Mark Zuckerberg who changed the name of Facebook to Meta. On this occasion, Zuckerberg also explained the great potential that the metaverse has.

Etymologically, metaverse comes from the combination of two words, namely meta (a Greek word meaning beyond or after) and universe, meaning world. The merging of the two can be understood as a world beyond the current world. Msytakidis (2022) calls it a post-reality universe. Metaverse is a new world of cross-reality because it can bring together physical reality and virtual reality. The implementation of the metaverse has the vision that even though they are virtual, individuals can still use and feel their five senses. Currently, the technologies that support the implementation of the metaverse are virtual reality (VR) and augmented reality (AR) (Narin, 2021).

Several countries are already combining tourism with the metaverse. For example, South Korea is starting to create Incheon City in the metaverse. Apart from that, Saudi Arabia has also started steps to bring the Kaaba of the Grand Mosque and other historical relics into the metaverse. Therefore, the transformation of Indonesian tourism should enter the realm of the metaverse. However, preparing this metaverse tourism model is not easy. It requires careful planning and looking at opportunities from who becomes a consumer or user (Wright, 2008).

Looking at the various current conditions, transformation is needed in the tourism sector (Endarto and Martadi, 2022). The intention for transformation already exists, but it is still limited to online virtual tours. The Ministry of Tourism and Creative Economy presents virtual tours in two types, namely video highlights from selected Indonesian tourist destinations and 360 degree photos of destinations. In the realm of Communication Science, the form of communication from online virtual tours created by the government is currently still one-way. Ideally communication occurs in two directions. Therefore, tourism transformation efforts need to be encouraged to be interactive and fun (engaging).

In Indonesia, the term metaverse tourism has only been heard since the beginning of 2022. The market opportunity for metaverse tourism in Indonesia is not yet visible because in Indonesia itself it is still at the development stage. The new metaverse tourism development will be built in stages. The potential of social media

really helps business people to find consumers, expand target markets and increase product sales. Likewise, metaverse has very high market opportunities so that people can apply metaverse to their daily lives (Wijayanto, 2023; Siahaan and Sawir, 2022).

This research aims to determine (1) the opportunities and threats of the existence of the metaverse for tourism in Indonesia; and (2) strategy for developing Indonesian tourism through the metaverse.

## **METHODS**

This research is a type of descriptive qualitative research. This research describes the opportunities and threats of the existence of the metaverse for tourism in Indonesia as well as strategies for developing Indonesian tourism through the metaverse. This is in accordance with the definition of descriptive qualitative research which describes findings in the form of descriptive accounts. Qualitative descriptive method is a type of research method that describes in detail (Semiawan, 2010).

The data sources used in this research were obtained through books, websites and literature related to the opportunities and threats of the existence of the metaverse for tourism in Indonesia as well as strategies for developing Indonesian tourism through the metaverse. The data collection technique in this research is by reading sources that are relevant to the research study and then sorting the data that will be included. The final step in the research method is to carry out an analysis using SWOT analysis regarding the opportunities and threats of the existence of the metaverse for tourism in Indonesia

## **RESULTS AND DISCUSSION**

### **Opportunities and Threats of the Metaverse for Indonesian Tourism**

Metaverse raises the concept of a virtual world that allows prospective tourists to take more interactive tourist trips online. In this way, Metaverse can provide an online travel experience that is exactly the same as traveling directly at a tourist attraction. The use of the metaverse in developing tourism trends in Indonesia has been implemented several times, for example the Immersive Space Exhibition at the Jakarta National Museum (Demolingo, 2023). Interest in metaverse tourism is fueled by the urge to experience new experiences in interacting online along with the potential of metaverse technology.

The existence of the metaverse for Indonesian tourism (metaverse tourism) can create real (physical) world experiences in virtual space by utilizing technology where the virtual world in tourism has opened up new possibilities for creating innovations in enjoying tourist trips. Adapting metaverse tourism with the use of Virtual Reality (VR) and Augmented Reality (AR) produces 'high tech and high touch' collaboration that does not reduce the essential principles of tourism. Metaverse

tourism also produces new ways or ideas for traveling where tourists can feel like they are part of the trip, even if only in the virtual world.

Metaverse for Indonesian tourism can be applied, but metaverse-based tourism is not yet effective if implemented because not everyone has adequate technology, plus not everyone understands how to operate it, in fact there is still a lot of infrastructure that is lacking in terms of technology, such as differences in internet networks in several distant areas from the city center. The application of metaverse tourism may be applicable in certain areas in Indonesia, on the other hand, people who live in remote areas have not been able to participate in the use of metaverse due to technology and internet network constraints.

Metaverse tourism is more popular with Gen-Z. MR technology is the main choice for use in tourism. The choice of MR technology cannot be separated from the characteristics of Gen-Z as digital natives, who like technological innovation. The development of technology aimed at so that virtual touch can be felt by the physical body is one of the main factors that Gen-Z is interested in trying MR. Regarding this, Mark Zuckerberg has started showing off gloves with haptic technology developed by Meta Reality Lab. Curiosity about new technology and adding value from the online travel experience are the two main points that increase Gen-Z's interest in metaverse tourism using MR.

Another opportunity for metaverse tourism in Indonesia is that metaverse tourism can be a medium for promoting a destination. Metaverse becomes an arena for getting comprehensive information and increasing someone's interest in visiting directly. Dodd and Johnson (2009) wrote that tourists usually look for information before deciding or visiting a tourist destination. Information about tourist destinations started from word of mouth to virtual searches and is now shifting again to word of metaverse. Metaverse tourism also has the opportunity to be a temporary solution for sick people, the elderly and people with disabilities. The existence of metaverse tourism removes restrictions on age and physical condition, so that barriers that previously existed can melt away with technological developments.

Meanwhile, the threat that can be posed by the existence of metaverse tourism in Indonesia is related to sensory factors in enjoying tourism. It is considered that metaverse tourism cannot provide the same sensation as direct tourism. Even though MR technology is used, virtual activities cannot feel as optimal as in the real world. More than that, it is related to the impact on health if you use MR for metaverse tourism for too long. Issues regarding eye health and the dangers of radiation are things of concern.

The huge potential along with the natural beauty and culture of Indonesia can be utilized to create new tourism trends through the metaverse. Indonesia has a lot of natural beauty that can be enjoyed. Recently, people have tended to enjoy natural tourism, such as islands, seas or beaches. Efforts to get closer to nature can provide relaxation for tourists' bodies and minds. Metaverse tourism cannot yet replace the sensation of enjoying direct tourism. Therefore, the practice of metaverse tourism is

only seen as a complement or provider of additional information when someone is looking for a tourist destination.

The interesting findings from this research show the great attention Gen-Z pays to introducing the natural beauty and richness of Indonesian culture. The natural beauty here is more focused on the beaches, islands, sea, and their flora and fauna. Meanwhile, cultural richness cannot be separated from the history and intricacies of that culture. Seeing these findings, researchers recommend implementing gamification in metaverse tourism. Gamification in the tourism industry is the practice of adopting video game-like games to enhance the overall tourist experience. Tourism gamification can present several elements such as historical destinations, historical stories, beautiful views, and so on.

In connection with the finding that Gen-Z views metaverse tourism as a temporary and complementary substitute, so that gamification can be a variable that can motivate and encourage someone. Not only enjoying metaverse tourism, but also growing interest in attending and experiencing first-hand experience of a gamified tourist destination. Some of the main pillars in tourism gamification are game dynamics that allow metaverse tourists to interact with non-player characters, immersive levels that can move the emotional side, levels of freedom that can be provided through the freedom to explore metaverse destinations, games that are able to present relationships in the game, and provide feelings real because he pays attention to details.

The opportunities and threats of the existence of the metaverse for Indonesian tourism, as previously explained by researchers, are simply presented in the form of the following table.

**Table 1.1 Opportunities and Threats of the Metaverse for Indonesian Tourism**

<b>Aspects</b>	<b>Opportunities</b>	<b>Threats</b>
Travel experience	Metaverse raises the concept of a virtual world that allows tourists to travel more interactively online	Metaverse tourism cannot provide the same sensation as direct tourism.
Technology (Internet Access)	Adaptation of metaverse tourism with the use of Virtual Reality (VR) and Augmented Reality (AR) produces collaboration that does not reduce the essential principles of tourism	The application of metaverse tourism may be applicable in certain areas in Indonesia, on the other hand, people who live in remote areas have not been able to participate in the use of metaverse due to

Health	Temporary solution for sick people, the elderly, and people with disabilities	technology and internet network constraints. Issues regarding eye health and the dangers of radiation are things to worry about when using MR
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### Indonesian Tourism Development Strategy Through Metaverse

Metaverse tourism that needs to be developed in Indonesia is divided into two types, namely real-based metaverse and virtual-based metaverse. There are four main points that differentiate between the two types of metaverse, namely the role of the metaverse, its location, interaction style, and ego manifestation (Um, 2022).

**Table 2.1 Difference between Real-Based Metaverse & Virtual-Based metaverse**

Source: Um (2022)

	Real-based Metaverse	Virtual-based Metaverse
Peran ( <i>role of metaverse</i> )	Meningkatkan pengalaman di dunia nyata ( <i>reinforcing real experiences</i> )	Menghadirkan pengalaman baru ( <i>providing new experiences</i> )
Lokasi ( <i>location of experiences</i> )	Dunia nyata ( <i>physical world</i> )	Dunia virtual ( <i>virtual world</i> )
Gaya Interaksi ( <i>type of interaction</i> )	Satu arah ( <i>one way</i> )	Dua arah ( <i>two way</i> )
Perwujudan Ego ( <i>form of ego</i> )	Menunjukkan diri sendiri ( <i>real self</i> )	Berpeluang menampilkan sisi lain dari diri individu ( <i>a new self-made by user</i> )

In real-based metaverse, the technology used is AR, where the device needed is simply to use a smartphone and access a special application created by the developer. For example, a tourist destination in Barcelona is the Casa Batllo building which was designed by Antoni Gaudi. Apart from featuring a unique and aesthetic design, the building is also equipped with AR features. Tourists who come can be guided, see and feel virtual experiences presented in the real world.

Meanwhile, the virtual-based metaverse type requires VR technology. One example of VR tourism can use a 360 degree audio-visual program in 3D. Individuals need special devices such as Oculus VR which is shaped like ski goggles. The price of this VR glasses device is 299 USD or around IDR 5 million. One example is taking a virtual tour to the Ka'Bah.

Apart from the two types of metaverse tourism mentioned by Taehyee et al. (2022), Buhalis and Karatay (2022) added a third type, namely mixed reality-based metaverse, which combines the advantages of AR and VR. The device required is Microsoft HoloLens 2. The price of this device is 3,500 USD or around IDR 53 million

(Jati, 2019). The device is intended for workers in manufacturing, design, health, and can also be used by the military.

**Table 2.2 SWOT Analysis Related to the Existence of the Metaverse for Indonesian Tourism**

<b>SW</b>	<p><b>Strengths (kekuatan)</b></p> <ol style="list-style-type: none"> <li>1. Utilization of technology as a travel innovation</li> <li>2. Long distance travel experience</li> <li>3. As an educational tourism destination that can be offered to tourists in the form of tourism presentations with sophisticated metaverse technology</li> </ol>	<p><b>Weakness (kelemahan)</b></p> <ol style="list-style-type: none"> <li>1. Technology and internet networks are constrained by tourism in remote areas</li> <li>2. Lack of public understanding of metaverse digitalization</li> <li>3. Difficulty of access and high costs</li> <li>4. Tourist activities do not give the impression of the metaverse tourism concept</li> </ol>
<b>OT</b>	<p><b>Opportunity (peluang)</b></p> <ol style="list-style-type: none"> <li>1. Tourism trends that can help the local economy</li> <li>2. Indonesia's natural beauty can be displayed in the metaverse</li> <li>3. Various Indonesian cultures can be displayed in the metaverse</li> <li>4. Segmented market Gen-Z</li> <li>5. Rapid technological development</li> <li>6. There is government</li> </ol>	<p><b>Strategi SO</b></p> <p>Metaverse tourism marketing planning as a contemporary tourism trend</p> <p><b>Strategi WO</b></p> <p>Socialization of the use of metaverse in Indonesian tourism by developing a metaverse tourism concept for tourists</p>

involvement in bringing in tourists		
<b>Threat (Ancaman)</b> 1. Not yet received full support from the local Tourism Department to create metaverse tourism 2. Not all tourists like metaverse tourism 3. Low knowledge on the part of the management to make tourism activities into metaverse tourism 4. Some tours have very long distances to travel	<b>Strategi ST</b> Collaborating with the Tourism Department and the other sector to support metaverse tourism	<b>Strategi WT</b> Educate and promote metaverse tourism programs

Based on the SWOT analysis above, it is known that several strategies can be implemented in Indonesian tourism development strategy through the metaverse as follows:

**SO Strategy: Marketing planning for metaverse tourism as a current tourism trend.** Tourism managers need to take advantage of very rapid technological developments to create websites and social media accounts about metaverse tourism in Indonesia. In this era of digitalization, it is important to be able to adapt in order to maintain the existence of tourist attractions. Then collaborate with social media accounts that promote tourism as a means of promoting metaverse tourism.

**WO Strategy: Socialization of the use of metaverse in Indonesian tourism by developing a metaverse tourism concept for visiting tourists.** Managers need to develop a concept so that tourists have a pleasant metaverse tourism experience. Managers also need to prepare a tour guide during their visit to metaverse tourism who guides tourists and provides education regarding natural beauty combined with culture in Indonesia. This strategy focuses on natural beauty which is included as an Indonesian cultural reserve displayed in the metaverse. This also provides added value to metaverse tourism, namely not only seeing natural beauty but also introducing Indonesian culture.

One of the cultural heritage destinations that is of interest is Komodo Island, East Nusa Tenggara, which has been given the title of World Heritage Site by Unesco. Another preferred destination is Bali. Tourists hope that several islands in Bali will be displayed in the metaverse, so that domestic and foreign tourists can see and enjoy their beauty. Pink Beach is one of the destinations of choice because of the uniqueness of the pink beach. There are also those who call Raja Ampat a destination that must

be present in the metaverse. Access difficulties and the high cost of visiting Raja Ampat can be resolved by being present in the metaverse.

Apart from showcasing natural beauty, tourists also view metaverse tourism as needing to elevate Indonesian culture. Based on data from the Ministry of Education and Culture (2021), Indonesia has 439 museums, 20 cultural parks, 176 cultural reserves, 488 traditional villages and 2,228 cultural communities. Not only that, Indonesia also has intangible cultural heritage in the form of traditions and oral expressions, customs and rites as well as celebrations, performing arts, as well as traditional skills and crafts which reached 1,239 as of 2020.

Based on the data above, tourists want several Indonesian cultures that can be presented and introduced to the world through the metaverse. Some cultures, such as the Dayak tribe in Kalimantan, where through the metaverse you can be introduced to the Dayak tribe's daily activities, typical food, traditional clothing, and certain rituals that are carried out. There are also those who want cultural destinations in the metaverse to provide historical background.

**ST Strategy: Collaborating with the Tourism Department and the private sector to support metaverse tourism.** After getting support from the Tourism Department, the manager can make a proposal for developing a metaverse tourism destination to be presented to the private sector in order to obtain investment to meet tourist needs.

**WT Strategy: Educate and Promote the Metaverse Tourism Program.** There is a need for education such as training for tourism managers in Indonesia so that managers can develop a metaverse tourism concept that will attract tourists. The next step, managers can collaborate with private parties such as tours and travel to realize the metaverse tourism concept that has been prepared.

The large opportunity for the tourism metaverse market in Indonesia, especially in big cities, can be seen if there is the power of digitalization, where digitalization in developing tourism businesses, especially in destinations, is a 'communication tool' to make it easier to find out tourist attractions. As well as providing telecommunications or conveying information to tourists, if there are promotions or new tourist destinations.

## CONCLUSION

Based on the research description, the conclusion of this research shows that the existence of metaverse tourism related to travel experiences has the opportunity to make tourist trips more interactive and becomes a threat because it is considered less than optimal, while related to technology (internet access) the existence of metaverse tourism has the opportunity to be an innovation in tourism trends and becomes a threat because it has not yet been implemented. equal distribution of internet access in Indonesia, and related to health, the existence of metaverse tourism has the opportunity to be a solution for people with disabilities because it can be long distances and is a threat due to radiation problems. The Indonesian tourism development strategy based on SWOT analysis consists of the SO strategy through

marketing planning for metaverse tourism as a current tourism trend, the WO strategy through socializing the use of metaverse in Indonesian tourism by developing a metaverse tourism concept for tourists, the ST strategy through collaboration with the Tourism Office and the private sector. supports metaverse tourism, and WT strategies through education and promotion of metaverse tourism programs.

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