Virtual Tourism in Berastagi Based on Roblox Metaverse Post-Covid-19 Pandemic

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Article Info	ABSTRACT
Article history: Received Nov 20, 2023 Revised Nov 23, 2023 Accepted Nov 26, 2023 **Keywords:** Covid-19 Metaverse Tourism Roblox Virtual	The limited mobility and tightening of social restrictions have resulted in most tourist destinations becoming devoid of visitors. However, amid these challenges, an innovative concept has emerged that has captured attention, namely, the Virtual Tourism of Berastagi based on the Roblox Metaverse. The aim of this research is to provide a safe and innovative alternative for tourists, especially in the post-Covid-19 situation. Additionally, it is also expected to enhance the potential for future tourism visits to Berastagi. One of the platforms utilized is Roblox, a popular gaming and metaverse platform among children and teenagers. Through this platform, tourists can access Berastagi virtually with greater ease and interactivity.

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1. INTRODUCTION

Since the onset of the Covid-19 pandemic in Indonesia, the tourism sector in the country has experienced a significant decline. Limited mobility and tightened social restrictions have left most tourist destinations devoid of visitors. However, in the midst of these challenges, an innovative concept has emerged that has captured attention, namely, Virtual Tourism in Berastagi based on the Roblox Metaverse.

Amid the prolonged Covid-19 pandemic, this concept has become an alternative solution to promote tourism in Indonesia, especially in Berastagi, North Sumatra. Through a realistic virtual tourism experience, travelers can explore Berastagi without being limited by distance and physical boundaries.

The objective of this research is to provide a safe and innovative tourism alternative for travelers, particularly in a post-Covid-19 scenario. Additionally, it is expected to boost the potential for tourism visits to Berastagi in the future.

One of the platforms utilized is Roblox, a popular gaming and metaverse platform among children and teenagers. By using this platform, travelers can access Berastagi virtually with greater ease and

interactivity. Through customizable avatars, tourists can engage in exploration and interaction with the environment and tourist attractions in Berastagi.

However, the development of the Virtual Tourism in Berastagi concept comes with its own set of challenges. In addition to the need for adequate technology and infrastructure preparations, the concept must also deliver an engaging and realistic virtual tourism experience for travelers. Collaboration between the government and tourism stakeholders is crucial to maximize the benefits for the tourism sector in Indonesia.

It is hoped that this research will contribute to strengthening the tourism sector in Indonesia, expanding the tourism market, providing a safe and innovative tourism alternative for travelers, and enhancing the potential for tourism visits to Berastagi in the future.

1.1. Problem Statements

The research problem statements are as follows:
a. How can the use of Roblox Metaverse become a virtual tourism alternative to address the decline in tourist visits to Berastagi during the Covid-19 pandemic?
b. What are the factors influencing tourists' interest in visiting virtual tourism in Berastagi based on the Roblox Metaverse?
c. How can the development and marketing of virtual tourism in Berastagi based on the Roblox Metaverse enhance tourism visits to Berastagi?

1.2. Problem Solving Solution

The problem-solving approaches for this research are as follows:
a. Developing a captivating virtual tourism in Berastagi based on the Roblox Metaverse that aligns with the uniqueness of Berastagi as a tourist destination.
b. Establishing collaborations with relevant parties such as the government, communities, and the tourism industry to develop and promote virtual tourism in Berastagi based on the Roblox Metaverse.
c. Disseminating information and building awareness about virtual tourism in Berastagi based on the Roblox Metaverse through social media, websites, and promotional campaigns.

1.3. Theoretical Basis

Tourism is an essential sector in a country's economy, where technology has become an increasingly important aspect in its development (7). One of the technologies currently evolving and showing potential in tourism development is virtual reality (VR) and augmented reality (AR) technology (2). VR has been utilized in tourism research, such as illustrating tourist destinations, providing virtual tourism experiences, and studying consumer behavior in travel decision-making (8). In recent studies, there has been a proposal for the concept of "metaverse tourism," which refers to the use of metaverse technology to offer distinct and more engaging virtual tourism experiences for visitors (9).

Furthermore, (6) indicates that VR experiences can influence the image of tourist destinations and the intention to visit. For example, (4) found that website designs for tourism based on online gaming can impact consumer attitudes and intentions to visit. Meanwhile, (5) demonstrates that AR experiences can affect destination image and visitation intentions.

In this context, this research will focus on the use of the Roblox platform as a means to develop virtual tourism in Berastagi. It is anticipated that the captivating and interactive virtual tourism experiences generated by this platform can influence destination image and visitation intentions (10).

This research is expected to provide a new contribution to the development of virtual tourism in Indonesia, especially in the context of the COVID-19 pandemic, which has restricted physical mobility and increased demand for virtual tourism experiences (3).

2.   RESEARCH METHOD

The research method used is as follows:

a. Literature study can be used to collect data and information about the use of virtual technology in tourism promotion, especially in the post-Covid-19 pandemic era. Literature can be found through books, journals, articles, and online resources.

b. Online surveys can be used to collect data from virtual tourists who have visited Berastagi via the Roblox metaverse platform. Online surveys may include questions about users' experiences, satisfaction, and their preferences in exploring virtual tourism.

c. Observations can be made to observe the use of the Roblox metaverse platform in Berastagi tourism promotion. Observations can include observations about the use of the platform by tourism developers as well as by users.

d. Interviews can be conducted with tourism developers in Berastagi and also with users of the Roblox metaverse platform. Interviews can help in obtaining information about the development of virtual tourism, the use of platforms, and their impact on the tourism industry.

e. Data analysis can be used to process data that has been collected through surveys, observations and interviews. Data analysis can include descriptive analysis and statistical analysis to produce findings that can be used in developing recommendations.

3.   RESULTS AND DISCUSSIONS (10 PT)

3.1. Results

Roblox Metaverse Tourism in Beras Tagi Created Using a Core i7 Laptop with 16GB RAM and 250GB SSD, Along with Metaverse Studio Software. The tourism visualized in the metaverse includes Efi Garden, Gundaling, Sikulikap Waterfall, and Lau Kawar Lake.
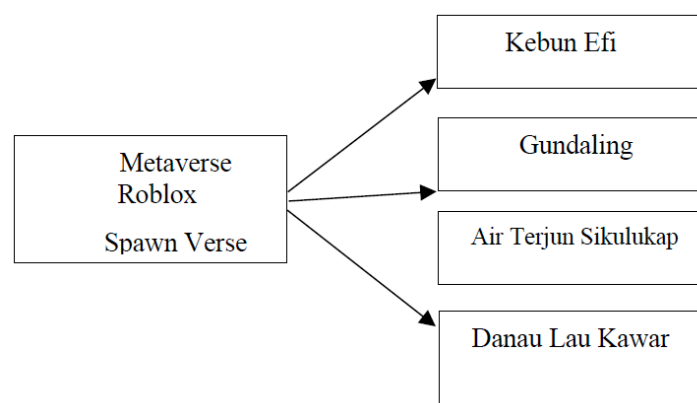

Figure. 1. Access to the Roblox Metaverse.

Figure. 2. Berastagi Verse Spawn Location.

Figure. 3. Overall Landscape of the Roblox Metaverse in Berastagi

Figure. 4. Landscape Metaverse Roblox Beras Tagi Top View

Figure. 5. Efi Garden View Top View

Figure. 6. Efi Garden Bottom View

Figure. 7. Gundaling Top View

Figure. 8. Heading to Sikulukap Waterfall

Figure. 9. Sikulukap Waterfall

Figure. 10. Lake Lau Kawar

3.2. Discussions

This research illustrates the urgency and potential of the Berastagi Virtual Tourism concept based on the Roblox Metaverse as an innovative alternative in dealing with the decline in tourism due to the Covid-19 pandemic in Indonesia. With a realistic virtual tourism experience, this concept offers a safe and attractive solution for tourists, and can increase tourist visits to Berastagi in the future.

4.   CONCLUSION

The use of the Roblox platform as the main medium allows easy and interactive access to Berastagi through customizable avatars. Even though it has strong potential, the development of this concept must overcome various challenges, including technological preparation, infrastructure and a stunning virtual experience for tourists. Collaboration between the government and tourism stakeholders is the key to success in realizing this concept.

It is hoped that this research will strengthen the tourism sector in Indonesia, expand the tourism market, provide safe and innovative tourism alternatives for tourists, and increase the potential for tourist visits to Berastagi in the future.

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