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FROM VIRTUAL TO REALITY: HOW METAVERSE AND VR TECHNOLOGIES INFLUENCE TRAVEL DECISIONS

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ABSTRACT
This study investigates the impact of Virtual Reality (VR) and the Metaverse on travel decisions, specifically focusing on lesser-known tourist destinations. The purpose is to understand how immersive digital experiences can influence potential visitors' perceptions and travel intentions. A mixed-methods approach, combining qualitative interviews with tourism stakeholders and quantitative surveys with 500 participants, was used to collect data. The results show that VR and Metaverse experiences significantly enhance user engagement, emotional attachment, and the likelihood of visiting the destination in person. The study's findings offer practical insights for tourism marketing strategies, suggesting that VR and Metaverse platforms can complement traditional marketing approaches. Theoretical implications include contributing to the understanding of digital transformation in tourism, particularly in how immersive technologies shape travel behavior. This research contributes to both theory and practice by highlighting the potential for VR and Metaverse technologies to increase the appeal of lesser-known destinations like Lake Toba.
Keywords: *Metaverse, Virtual Reality, Tourism Promotion, Lake Toba, Immersive Technology.*

1. Introduction

In recent years, digital technologies like Virtual Reality (VR) and the Metaverse have emerged as transformative tools in the tourism sector. These technologies offer immersive experiences that can influence travelers' perceptions and decisions, providing a unique way for destinations to engage potential visitors. However, despite the growing popularity of VR and the Metaverse in tourism marketing, their impact on travel behavior, especially for lesser-known destinations, remains underexplored. The tourism sector is presented with unparalleled opportunities to engage potential visitors through a creative, immersive, and interactive platform in the Metaverse (Uçgun, 2024). Gegung (2023) provides a compelling illustration of the utilization of Metaverse technology in tourism destination marketing through the lens of the renowned and culturally significant Lake Toba in Indonesia. Despite its remarkable natural beauty and cultural value, Lake Toba has struggled to attract foreign tourists. One reason for this is a lack of regional accessibility and worldwide awareness. Traditional marketing tactics, although still effective, are losing appeal in recruiting tech-savvy, experience-oriented visitors. These tourists give interactive and immersive experiences top priority above traditional advertising (Ramírez-Herrero et al., 2024).

This paper proposes a tourist marketing strategy based on Metaverse immersive characteristics and Virtual Reality (VR) technology to tackle challenges by means of which Virtual Reality (VR) technology enhances them (Nateghi & Mosharraf, 2023). This approach seeks to establish emotional linkages with the place by letting potential visitors digitally experience the surroundings before making a travel decision, therefore increasing the likelihood of a final real visit.

In accordance with the more general digital transformation patterns dramatically changing the tourism industry, integration of VR into the Metaverse architecture allows a more interactive and dynamic approach of destination promotion (Kataria et al., 2023).

The tourism industry faces challenges in promoting lesser-known destinations, which often struggle with low visibility and limited recognition in the global market. Traditional marketing approaches have proven ineffective in reaching today's tech-savvy, experience-driven travelers. As such, this study explores how VR and Metaverse technologies can address these challenges by providing interactive, immersive experiences that enhance emotional engagement and influence travel intentions. The study is to closely evaluate how virtual experiences affect actual trip plans and interaction with Lake Toba. The findings of this research should significantly add to the already rising body of research on digital travel.

This research is to provide factual data and useful insights to improve the competitiveness of newly discovered locations in the worldwide tourism scene. Furthermore underlined is the indispensible contribution of digital innovation in addressing the particular difficulties experienced by underprivileged tourist sites. As this study shows, the strategic integration of modern technology may transform traditional destination marketing tactics and provide creative possibilities to include the technologically informed consumers of the present.

2. Literature Review

The tourism industry has widely recognized the potential of Metaverse and Virtual Reality (VR) technologies to transform the promotion and experience of destinations. The emergence of immersive and interactive platforms has enabled prospective travelers to investigate and emotionally engage with destinations in ways that were previously unimaginable. The subsequent table 1 summarizes the primary studies that have examined the implementation of these technologies in the tourism sector. This table demonstrates their ability to enhance visitor engagement, accessibility, and decision-making capabilities.

Table 1 - The Transformative Potential of Metaverse and Virtual Reality (VR) Technologies in Tourism.

Author(s)	Main Focus	Key Findings
Nateghi & Mosharraf (2023)	VR's foundational role in simulating real-world environments	VR offers potential tourists virtual previews of destinations, creating immersive environments that allow them to experience places before visiting, thus enhancing engagement and decision-making.
Tretter et al. (2023)	The role of digital ecosystems like the Metaverse in enhancing tourism experiences	The Metaverse enriches tourism experiences by offering immersive, interactive, and engaging environments, surpassing the limitations of traditional marketing and fostering deeper visitor engagement.
Kataria et al. (2023)	The role of VR and AR in boosting user engagement in destination marketing	VR and AR create sensory-rich environments that enhance user engagement and significantly influence travel intentions, helping lesser-known destinations gain visibility.
Gegung (2023)	Co-creating tourism experiences in the digital age	VR and Metaverse platforms foster deeper emotional connections with destinations, allowing potential tourists to virtually explore and interact with them, thereby increasing the likelihood of future visits.
Akin & Akın (2024)	The role of VR within the Metaverse in creating personalized virtual tours	VR technologies within the Metaverse enable destinations to stand out by offering unique virtual tours, meeting modern travelers' demand for personalized and authentic experiences.
Özkan & Özkan (2024)	Impact of virtual tours in increasing travel intent	Virtual tours that simulate real-life experiences significantly enhance travel intent and visitor engagement, providing immersive previews of destinations.
Al-Adaileh et al. (2024)	VR's ability to promote culture and environment virtually	VR enables users to virtually experience a destination's culture, attractions, and environment, fostering emotional connections and encouraging actual visitation.
Ling & Butakov (2024)	VR broadening access to otherwise inaccessible destinations	VR technologies help to visualize and promote remote or inaccessible destinations, expanding market reach and tourism possibilities.
Tukur et al. (2024)	Enhancing interactivity and memorability through	The Metaverse supports the co-creation of tourism experiences, enhancing both interactivity and

	co-created virtual experiences	memorability, offering tourists richer and more personalized virtual interactions.

These studies together illustrate the increasing influence of Metaverse and VR technologies on tourism marketing and experiences. The technologies revolutionize prospective visitors' interactions with destinations, cultivate profound emotional connections, and influence travel decisions, facilitating customized encounters, highlighting previously inaccessible sites, and offering immersive virtual tours.

The Metaverse and Virtual Reality (VR) technologies have profoundly altered travelers' perceptions and interactions with destinations, making the psychological and practical implications of these technologies on tourism more relevant. Researchers have investigated the practical applications and emotional responses to these technologies, emphasizing their capacity to enhance travel experiences, promote sustainability, and aid the recovery of the tourism sector. Table 2 presents a detailed summary of relevant studies evaluating the impact of VR and the Metaverse on visitor behavior and destination marketing.

Table 2 - Psychological and Practical Impacts of VR and Metaverse on Tourism.

Author(s)	Main Focus	Key Findings
Pan et al. (2023)	Psychological impacts of VR and Metaverse on tourist behavior	VR and Metaverse experiences shape tourists' emotions, which significantly influence travel decisions and increase emotional attachment to destinations.
Kwon et al. (2023)	Influence of VR experiences on destination perceptions	VR experiences improve tourists' perceptions of destinations, reinforcing travel intentions by providing visually engaging and emotionally immersive previews.
Alghamdi et al. (2023)	The role of Metaverse in boosting brand awareness and loyalty among tourists	The Metaverse enhances brand awareness and tourist loyalty through immersive virtual experiences, creating stronger emotional connections with destinations.
Huang et al. (2023)	Public sentiment toward Metaverse in tourism	Big-data analysis shows public excitement over the immersive capabilities of the Metaverse for tourism, but also concerns regarding its authenticity compared to real-life travel experiences.
Sadeghi & Qolipour (2024)	The use of avatars in virtual tourism for promoting sustainability	Avatars in virtual environments support sustainable tourism by educating tourists through immersive experiences about eco-friendly practices, fostering emotional engagement.
Yan et al. (2024)	Promoting sustainable tourism through VR	VR encourages more responsible and eco-conscious tourism decisions by educating potential travelers about the environmental impacts of their travel choices, thereby promoting sustainable tourism.
Aljuhmani et al. (2024)	Using Metaverse technologies to elevate lesser-known destinations	The Metaverse allows lesser-known destinations to compete with more popular ones through captivating virtual experiences, helping boost their competitiveness in the global tourism market.
Tjhin et al. (2024)	The role of VR and Metaverse in post-pandemic tourism recovery	VR and Metaverse maintain tourist engagement with destinations during travel restrictions, offering virtual alternatives until physical travel can resume.
Vasilenko et al. (2024)	Conceptual framework for understanding the role of Metaverse in tourism management	The Metaverse enables the co-creation of tourism experiences, thereby enhancing the memorability and interactivity of the experience, thereby offering travelers more sophisticated and personalized virtual interactions.

The multifaceted psychological and practical effects of VR and Metaverse technologies on tourism are illustrated in these studies. These technologies provide sustainable tourism solutions, influence emotive connections, and enhance brand loyalty, providing valuable insights and tools for both travelers and destination administrators. It will be essential to comprehend these effects as the tourism landscape continues to evolve in order to completely capitalize on the potential of immersive technologies in the promotion and administration of travel experiences. The destination marketing landscape is undergoing a rapid transformation as a result of the use of Metaverse and Virtual Reality (VR) technologies in tourism promotion. These technologies are revolutionizing the way in which potential visitors interact with destinations by improving user engagement and providing immersive experiences. Table 3

summarizes the most noteworthy research that demonstrate the inventive ways in which these technologies are used to promote tourism.

Table 3. Application of VR and Metaverse in Tourism Promotion.

Author(s)	Main Focus	Key Findings
Martín et al. (2023)	Use of WebXR platforms in promoting Valencia, Spain	By integrating authentic human interaction into virtual reality experiences, user trust and contentment are improved. VR-based interactions are more enjoyable than traditional internet interfaces, which is indicative of the effectiveness of immersive technology in the tourism sector.
Gritt et al. (2023)	Smart tourism platform recreating the city of Bari in the Metaverse	The platform enables interaction with local guides and services without physical travel, demonstrating the Metaverse's potential for personalized tourism and virtual experiences.
Rodríguez & Sanz (2024)	Advancements of the Metaverse redefining online travel agencies	The Metaverse can offer seamless, immersive travel options, potentially bypassing traditional third-party travel platforms.
Lee et al. (2023)	Growth of virtual tourism through Metaverse platforms	Metaverse platforms shift tourism marketing toward more dynamic, interactive, and emotionally engaging virtual environments, fostering stronger connections between tourists and destinations.
Gritt et al. (2024)	Smart tourism platform for Bari in the Metaverse	Virtual platform replicates Bari, allowing users to engage with local suppliers and tour guides, illustrating the capacity of the Metaverse to create engaging virtual travel experiences.
Chang et al. (2024)	The transformative potential of Metaverse for the tourism industry	Suggests that traditional online travel agencies must adapt to immersive travel options offered by the Metaverse, highlighting the industry's shift toward virtual experiences.
Di Franco et al. (2023)	Role of smart tourism platforms in recreating cities like Apulia digitally	Smart platforms provide real-time guided tours and detailed information, offering new marketing opportunities for tourism providers and enhancing accessibility of destinations.
Martín et al. (2024)	Usability of WebXR Metaverse platforms for tourism promotion in Valencia	Virtual tourist information centers significantly enhance user engagement and trust, especially when real individuals provide interactive guidance through VR.
Gritt et al. (2024)	Role of Metaverse in replicating real-world cities like Bari, Italy	These platforms allow virtual exploration of cities and interaction with local guides and suppliers in real-time, offering accessible and immersive tourism experiences.
Varela et al. (2024)	Digital replication of real-world environments in tourism	Digital technologies make previously inaccessible destinations more reachable, offering new possibilities for global tourism.

Overall, these studies demonstrate the widespread use of Metaverse and VR technologies in tourist marketing by demonstrating their ability to increase user engagement, satisfaction, and destination accessibility. In a digitally driven tourism industry, integrating these technologies is important to provide passengers with immersive and memorable experiences.

3. Research Methods

The current study investigates on how the Metaverse and Virtual Reality (VR) influence visitor marketing using a comprehensive mixed-methods methodology. This work aims to investigate how integrated qualitative and quantitative methods affect visitor marketing strategies, decision-making procedures, user experiences, emotional reactions, degrees of engagement. The method consists of numerous phases, each designed to provide total knowledge of the different angles of the subject.

3.1 In-depth Interviews

Semi-structured in-depth interviews were conducted to gather contextual information about the interactions between users of VR systems and Metaverse. A planned sample consisted of thirty people selected from a wide range of cultural and demographic settings. This sample included travel agencies, techies, regular tourists, and accidental visitors. Interviews allowed participants' opinions on VR and Metaverse platforms within the scope of travel to be compiled.

The interviews were videotaped with the participant's cooperation either in person or by video conference to emphasize features such immersion, authenticity, engagement, and emotional connection as well as the impact of digital platforms on the desire to visit actual locations. Every interview lasted anytime between 45 and 60 minutes. Open-ended questions provoked highly considered responses on the above mentioned topics. Examining themes helped to assess the whole transcripts of the obtained conversations. Looking at the anticipated reliability, simplicity, and personalization of the virtual visitor experience, this means the identification of recurring themes, patterns, and emotions.

3.2 Focus Groups

In addition to the individual interviews, two additional focus group discussions were conducted with tourism professionals and platform developers. The objective of each focus group was to create a shared comprehension of the integration of VR and Metaverse technologies into tourism promotion. The groups consisted of 8-10 participants. The discussions touched on a variety of subjects, including the future of digital tourism, scalability, user engagement, business opportunities, and technology adoption.

3.3 Survey Design

The survey comprised several key sections designed to capture various dimensions of user experience. The engagement and experience section assessed levels of immersion, engagement, and interactivity through a Likert scale ranging from 1 to 5. The behavioral impact section specifically evaluated how the use of VR and Metaverse technologies influenced travel decision-making, particularly whether the virtual experience enhanced the likelihood of visiting the destination in person. Additionally, the user satisfaction and emotional connection section measured emotional responses, including enjoyment, nostalgia, and excitement. The data collected from these sections were analyzed to explore the relationships between user engagement, satisfaction, emotional connection, and travel intentions, thereby providing a comprehensive understanding of the impact of immersive technologies on tourism behavior.

4. Results and Discussions

4.1 Interview results

The following table 4 summarizes key themes and direct quotations from the interviews.

Table 4 - Interview Findings

Theme	Description	Quotes
Immersion and Realism	Most participants reported heightened immersion through VR and Metaverse compared to traditional media.	"When I used VR, it felt like I was actually in the place, but sometimes the little details like trees or water didn't feel realistic." "Metaverse gives more room to explore the destination, but I still felt limited in my interactions."
Engagement and Satisfaction	High engagement was observed among those familiar with VR and Metaverse technology. Less familiar users focused on learning the technology rather than enjoying the experience.	"I love playing VR games, so the tourism experience with VR was very enjoyable. I could interact more, like making my own decisions to explore certain areas." "At first, I was confused about how to use the tools, so I focused more on figuring out the technology than enjoying the destination."
Emotional Connection	Emotional connections were stronger for participants with personal ties to the destination. Some felt VR and Metaverse couldn't fully evoke the same emotions as physical presence.	"I've been to Lake Toba before, so when I saw the VR version, it felt nostalgic. Even though it wasn't real, it still brought back memories." "Nothing can replace the real feeling of being there in person."
Intention to Visit Physical Destinations	Most agreed that VR and *Metaverse* increased their interest in visiting the physical destination.	"After the virtual tour, I became more interested in visiting the actual place. I felt like I already knew it and knew what to expect." "VR helped me feel more comfortable before going to a

	Some felt it helped reduce travel anxiety.	new destination because I already knew what to expect."

The interview results reveal nuanced perspectives on the efficacy of Metaverse and VR in tourism. In general, participants expressed their enthusiasm for the Metaverse's extensive exploratory opportunities and noted that these technologies offered a more immersive experience than traditional media. However, certain participants noted that the realism of specific elements, such as environmental details, could be improved.

Individuals who are familiar with VR and Metaverse technologies reported high levels of enjoyment and interaction in terms of engagement and contentment. They also appreciated the autonomy and decision-making opportunities that these platforms offered. Conversely, individuals without early familiarity with the technology had challenges about its usefulness, therefore impacting their entire user experience. Participants having prior ties to the places had notably strong emotional connections. Nonetheless, VR and Metaverse experiences were regarded as insufficient in duplicating the emotional depth of physical presence, even if they generated favorable feelings and nostalgia.

In addition, the intention to visit physical destinations was positively influenced by VR and Metaverse experiences, which led to a substantial increase in interest among numerous participants in visiting the actual locations. Additionally, certain users found that these virtual experiences were beneficial in reducing travel anxiety by establishing a sense of familiarity prior to their respective excursions.

4.2 Focus group results

The focus group discussions provided further insights into the perspectives of tourism professionals and platform developers regarding the use of Metaverse and Virtual Reality (VR) in tourism. The table 5 below summarizes the main themes identified and includes direct quotations that illustrate these themes.

Table 5 - Focus group results

Theme	Description	Direct Quotations
Technology Adoption	Adoption is rising, particularly for unique destinations. Challenges include high cost and technical difficulties.	"Destinations with unique attractions often use VR to provide experiences that traditional media can't capture." "The high cost of VR technology is still a barrier for many travelers."
Business Opportunities	Collaboration with travel agencies, hotels, and tour operators is seen as promising. *Metaverse* is viewed as the future of digital tourism.	"There's potential for collaboration with airlines and hotels to offer VR experiences as part of their promotions." "*Metaverse* could allow tourists to interact with destinations in real-time."
Scalability and Future of Digital Tourism	*Metaverse* offers interactive experiences but faces scalability issues. It is considered a complement rather than a replacement for physical travel.	"*Metaverse* could revolutionize tourism, but we need to ensure it's accessible and integrated into marketing plans." "While virtual, many tourists still prefer the tangible experience of visiting a place."

The focus group discussions highlighted several key insights into the application of Metaverse and VR in the tourism industry. Technology adoption is on the rise, especially for destinations with unique attractions that can leverage VR to offer immersive experiences that traditional media cannot match. However, the high cost of VR technology remains a significant barrier, limiting broader adoption among travelers.

Business opportunities were viewed positively, with participants noting the potential for collaboration between VR platform developers and various stakeholders such as travel agencies, hotels, and tour operators. This collaboration could enhance marketing efforts and offer integrated VR experiences as part of promotional packages. The Metaverse is also anticipated to

play a crucial role in the future of digital tourism, enabling real-time interactions with destinations.

Regarding the scalability and future of digital tourism, there is optimism about the transformative potential of the Metaverse. However, challenges related to scalability and accessibility were acknowledged. The Metaverse is seen as a valuable complement to physical travel experiences rather than a replacement, as many tourists continue to prefer the tangible experience of visiting destinations in person.

4.3 Survey results

The survey data, collected from 500 users of VR and Metaverse tourism platforms, provided substantial quantitative insights into user engagement and behavioral impacts.

Table 6 - Survey results

Variable	Mean	SD
Engagement and Experience		
Perceived Immersion	3.85	0.72
User Engagement	4.12	0.68
Interactivity	4.00	0.75
Behavioral Impact		
Increased Likelihood to Visit	3.90	0.80
Reduction in Travel Anxiety	3.78	0.85
User Satisfaction and Emotional Connection		
Enjoyment	4.25	0.70
Nostalgia	3.95	0.77
Excitement	4.10	0.74

The research findings offer a variety of perspectives on the user experiences of Metaverse and VR platforms. In terms of Engagement and Experience, Perceived Immersion demonstrated a mean score of 3.85 and a standard deviation of 0.72, suggesting a predominantly high level of immersion, albeit with heterogeneity in personal experiences. User engagement was substantial, as evidenced by the maximal score of 4.12 (SD = 0.68) for user participation. The interaction received a score of 4.00 (SD = 0.75), which suggests that the level of interaction was somewhat lower than that of engagement, and that it was still substantial.

The average score of 3.90 (SD = 0.80) for Increased Likelihood to Visit under the Behavioral Impact framework indicates that VR and Metaverse experiences significantly influence users' intentions to visit physical places. The Metaverse and virtual reality have been shown to alleviate certain travel-related anxieties; however, the extent of this effect differs across individuals, shown by a 3.78 (SD = 0.85) decrease in trip-related anxiety.

Enjoyment had the greatest ratings in User Satisfaction and Emotional Connection, with a mean of 4.25 (SD = 0.70). The majority of participants regarded the VR and Metaverse experiences as pleasurable. The score of 3.95 (SD = 0.77) for nostalgia suggests that these events may provoke nostalgic emotions, albeit the consequences may differ. Ultimately, customer excitement was quantified at a mean of 4.10 (SD = 0.74), indicating a positive disposition towards their virtual interactions.

4.4 VR and Metaverse Initiatives for Tourism Promotion

The development of Metaverse technology has fundamentally changed the encouragement of tourism as it has brought creative ideas that boost tourist interest and involvement. The significant developments the travel sector has seen from the incorporation of Metaverse technologies highlight in this part Through encouraging immersive experiences, it shows the degree to which these technologies may greatly affect travel choices.

One artistic way to highlight Lake Toba's natural splendor is the Virtual Home Tour System. This technology serves as a basic interface allowing possible guests to digitally explore the amazing surroundings of the area. The virtual preview gives future guests a complete awareness of the visual beauty of the area, therefore guiding their choices about in-person trips. Together, the interactive components and striking visuals of the Virtual Home Tour System build an interesting story that may greatly raise the likelihood of a real visit. (see Virtual Home Tour System).

The Virtual View of "Pantai Bebas Parapat" presents an exciting and simply accessible experience for both local and international guests. Surrounded by the amazing views of Lake Toba, this virtual simulation shows a variety of leisure activities including photo spots, skating areas, and hiking pathways. The virtual tour offers a full view of these amenities, therefore enhancing the attraction of this well-known place. Presenting leisure activities, this platform not only attracts visitors but also enhances the complete tourist experience by promoting local culture and way of life (see Pantai Bebas Parapat).

Virtual Tour of Tomok Tourism Village shows the cultural diversity of the Tomok Parsaoran Tourism Village. Emphasizing the worth of cultural artifacts with their unique architectural beauty—the Batak traditional house and the Si Gale Gale statuary—this virtual tour An expedition provides a thorough study of the cultural heritage of the town at Jl. Makam Sidabutar, Tomok, Simanindo, Samosir Regency. This virtual experience promotes cultural tourism and helps to increase knowledge and respect of the cultural worth of the location by enabling users totally engage with the local history and traditions (see Tomok Tourism Village).

On the Virtual View of Waterfront City in Pangururan District, the region next to Lake Toba shows a 6.4-hectare size. This tour mainly focuses on the architectural designs and scenic beauty of Waterfront City; it also introduces the interface of our virtual web application. Emphasizing the modern infrastructure and special qualities of Waterfront City, the virtual tour is a superb marketing tool that may attract local and international guests to further investigate the city (see Waterfront City).

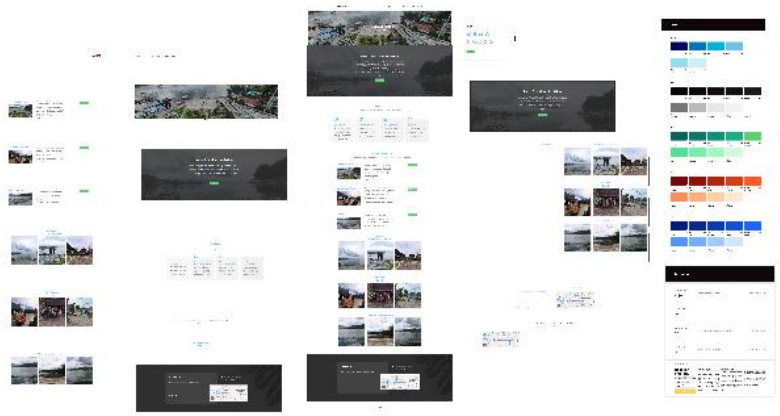

Fig. 1. Home virtual tour of "*Danau Toba*"

This study's qualitative and quantitative results provide a comprehensive knowledge of user experiences and their behavioral effects, producing both theoretical and practical insights into the changing dynamics of digital tourism.

Participants' qualitative evaluations indicate that VR and Metaverse platforms provide a significant advantage over traditional media by augmenting immersion and realism in interactions. The capacity to engage with environments and investigate virtual sites in real-time amplifies user participation, making these platforms appealing choices for destination marketing and pre-trip planning. But the limits in realism—shown by the surface quality of environmental elements—showcase the need of further technological development. Recent research stress how crucial environmental integrity is to increase user presence (Slater, 2003; Witmer & Singer, 1998). These results complement this. Especially in situations where users have personal connections to the site, the more realistic virtual settings may help users to become emotionally attached to these sites.

The answers of the surveys on engagement and pleasure clearly illustrate the difference between individuals who are knowledgeable in VR technology and those who know less of it. Higher delight indicated by experienced users emphasizes the need of user expertise in deciding

the quality of the virtual reality. This implies that by way of straightforward interfaces or training, overcoming technical obstacles for initial users would help to promote the acceptance of VR and Metaverse technologies in the tourist sector. This research conforms with the Technology Acceptance Model of Davis et al., which claims that the likelihood of technology adoption is much influenced by perceived ease of use (Davis, Bagozzi & Warshaw, 1989). Bettering interfaces might therefore allow more engagement with a bigger audience, hence improving the accessibility of VR and Metaverse travel.

The findings suggest that VR and Metaverse interactions might evoke feelings like nostalgia and excitement, especially in those with emotional ties to the locales. While these virtual interactions cannot fully replicate the emotional depth of in-person presence, they serve as useful precursors that may stimulate interest and cultivate emotional bonds with potential visitors. This finding is consistent with affective commitment theories (Meyer & Allen, 1991), which suggest that emotional connections foster lasting attachment and the motivation to act, namely the desire to visit the location. This highlights the significant experiential disparity between virtual and real travel, suggesting that VR and the Metaverse will augment, rather than replace, traditional tourism.

These qualitative insights are further validated by the quantitative results. The efficacy of VR and Metaverse platforms in attracting consumers is evident in the increased user involvement and perceived immersion. However, the diversity of individual experiences indicates that personalization may be necessary to improve overall satisfaction.. The high average scores for exhilaration and enjoyment indicate that users derive significant emotional and entertainment value from these platforms, which is consistent with prior research that underscores the hedonic aspects of virtual interactions (Holbrook & Hirschman, 1982).

Additionally, the tourism marketers' most noteworthy discovery is the significant positive influence on behavioral intention, specifically the increased likelihood of visiting physical locations as a consequence of engaging with virtual platforms. The connection between virtual engagement and real-world actions appears to be established by virtual reality and Metaverse experiences, as participants exhibit increased confidence and understanding of specific domains as a consequence of virtual exploration. This aligns with destination image theory (Echtner & Ritchie, 1991), which asserts that virtual interactions enhance cognitive and emotional assessments of a site, thereby affecting travel intentions. The differences in lowering travel anxiety suggest that even if virtual platforms provide a feeling of familiarity, they may not be able to fully address the issues about real travel. This implies that more tailored VR experiences addressing certain passenger issues like safety or logistical concerns is need to aid to lower anxiety. These results have consequences for the overall travel sector, not just for user experiences. The focus group conversations underlined the cooperative economic prospects between VR developers and conventional tourist players like hotels, airlines, and travel agents. These alliances might help to implement innovative marketing plans wherein virtual experiences act as previews or auxiliary services improving consumer involvement and decision-making. Furthermore, the growing usage of technology—especially in areas with unique attractions—indicates that early adoption of VR and Metaverse technologies is probably going to benefit specialized tourism industries significantly. Still, these technologies present a major difficulty in terms of scalability. Participants observed that the technical limitations and exorbitant cost of VR technology could potentially impede its widespread adoption, particularly among budget-conscious visitors. Subsequently, it will be essential to prioritize initiatives that emphasize accessibility improvements and cost reduction in order to completely maximize the potential of Metaverse and VR platforms.

The results reveal, users have a generally positive perception of immersion, with a mean score of 3.85 (SD = 0.72). This means that VR and Metaverse technologies efficiently duplicate fascinating worlds that capture users; nonetheless, the subjective element of immersion is highlighted by the variety of individual encounters. The highest mean score of 4.12 (SD = 0.68) in User Engagement demonstrates the platforms' ability to create strong connections with its users. According to the most current studies (Steuer, 1992; Witmer & Singer, 1998), immersive environments may dramatically boost engagement by allowing for sensory stimulation and interaction.

There is statistical significance shown by the mean of 4.00 (SD = 0.75) interaction evaluations. Research stressing the need of active involvement in enhancing the user experience supports this conclusion, which implies that individuals prefer interactive components on digital platforms (Witmer & Singer, 1998). Further research is required to better grasp the link between involvement and interaction, hence enhancing the design of future VR and Metaverse visitor experiences.

The Increased Likelihood to Visit has a mean score of 3.90 (SD = 0.80), demonstrating that immersive experiences increase users' inclinations to visit physical places. This study supports the idea that virtual previews may have a modest influence on travel choices (Echtner & Ritchie, 1991). While VR and Metaverse interactions may alleviate some travel-related concerns, the trip anxiety reduction score of 3.78 (SD = 0.85) reflects individual reactions. The level of comfort and familiarity with linked technology may determine how effectively these immersive experiences work to relieve anxiety. The data revealed a striking relationship between emotional connection and client satisfaction. Consumers often find these interactions intriguing with a mean score of 4.25 (SD = 0.70). This is consistent with other studies showing that increasing the effectiveness of tourist marketing strategies depends critically on enjoyment (Kim, Lee, & Jung, 2015). With a mean score of 3.95 (SD = 0.77), nostalgia indicates that these occurrences inspire memories and feelings, hence strengthening emotional ties with physical sites. As it influences consumers' desire to travel, the emotional involvement serves to underline the relevance of emotional links in tourist decisions (Huang, Hsu, & Chan, 2010). Using this excitement, tourism marketers may inspire involvement and create interest in virtual experiences as a precursor to real-world travel. This study underlines via quantitative data the transforming possibilities of VR and Metaverse technology in reinventing user experiences in tourism. Thus, more research is needed to find their effects on customer behavior and marketing plans in the growing travel sector.

5. Conclusion

The employment of Metaverse and Virtual Reality (VR) technology in tourist marketing provides considerable benefits in terms of increased user engagement, emotional resonance, and travel preferences. These immersive technologies provide tourist attractions a competitive advantage by establishing a strong feeling of presence and enabling consumers to virtually experience destinations before they arrive. This research demonstrates that the Metaverse and virtual reality dramatically boost user satisfaction, increase travel interest, and create targeted, interactive experiences that outperform traditional marketing techniques.

Still, there are a few things to consider. The high cost of VR gear, as well as the technical skills required to utilize these platforms successfully, remain significant barriers to accessibility. Furthermore, substantial inquiries about the authenticity of virtual experiences in relation to real travel have emerged. Despite its remarkable immersive qualities, virtual reality may inadequately represent the cultural richness and ambiance of actual areas. Future research should focus on mitigating the technical and economic constraints associated with VR technology to alleviate concerns and enhance the usefulness of the Metaverse and VR in tourism, particularly in low-income countries. This will enhance accessibility. Companies must emphasize authenticity and cultural representation in virtual environments to correctly depict real-life experiences. Real-time data, cultural subtleties, and sensory cues may enhance an individual's authenticity. The effect of virtual connections on physical travel over time, particularly how Metaverse and VR interactions affect user behavior, requires a longterm research. Furthermore, research into hybrid tourism models that integrate virtual and physical activities may provide a more unified and immersive travel experience.

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