

2024-10-25

DDMMO Website Quality, Destination Image and Intention to Use Metaverse Platforms

Deirmentzoglou, Georgios A.

MDPI

Deirmentzoglou, G.A.; Vlassi, E.; Anastasopoulou, E.E. DDMMO Website Quality, Destination Image and Intention to Use Metaverse Platforms. *Platforms* 2024, 2, 180-192. <https://doi.org/10.3390/platforms2040012>
<http://hdl.handle.net/11728/12630>

Downloaded from HEPHAESTUS Repository, Neapolis University institutional repository

Article

DDMMO Website Quality, Destination Image and Intention to Use Metaverse Platforms

Georgios A. Deirmentzoglou ^{1,*} , Eirini Vlassi ^{1,2}  and Eleni E. Anastasopoulou ^{1,3}

¹ Department of Economics and Business, Neapolis University Pafos, Pafos 8042, Cyprus; e.vlassi.2@nup.ac.cy (E.V.); e.anastasopoulou.1@nup.ac.cy (E.E.A.)

² Department of Tourism Economics and Management, University of the Aegean, 82100 Chios, Greece

³ Department of Agriculture, University of the Peloponnese, 24100 Kalamata, Greece

* Correspondence: g.deirmentzoglou@nup.ac.cy

Abstract: **Background/Objectives:** Destination Development, Management, and Marketing Organizations (DDMMOs) have the power to influence perceptions and behaviors regarding both actual and virtual travel in the rapidly changing landscape of digital environments. Within newly emerging Metaverse platforms, their websites can serve as critical touchpoints that enhance destination attractiveness and enable visitors to engage in valuable experiences. In this vein, this research attempts to determine if DDMMO website quality and destination image can influence users' intention to virtually visit a place by using a Metaverse platform. **Methods:** Users who navigated a European DDMMO website were asked to fill out a self-administered questionnaire, and 318 responses were collected. Then, structural equation modeling (SEM) was used to test the research hypothesis. **Results:** The results show that website interactivity and affective destination image had a direct positive impact on a user's intention to use the Metaverse platform. Furthermore, indirect impacts of website design and usefulness and cognitive destination image were detected. **Conclusions:** DDMMOs and destination marketing experts can gain valuable insights from the outcomes of this research. Thus, focusing on the aforementioned website features can help them enhance destination image and attract users to their Metaverse platforms.

Keywords: DDMMOs; website quality; destination image; metaverse; platforms; cognitive image; affective image



Citation: Deirmentzoglou, G.A.; Vlassi, E.; Anastasopoulou, E.E. DDMMO Website Quality, Destination Image and Intention to Use Metaverse Platforms. *Platforms* **2024**, *2*, 180–192. <https://doi.org/10.3390/platforms2040012>

Academic Editor: Adel Ben Youssef

Received: 4 August 2024

Revised: 22 October 2024

Accepted: 23 October 2024

Published: 25 October 2024



Copyright: © 2024 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

As the digital era progresses, an increasing number of tourists are utilizing the websites of Destination Development, Management, and Marketing Organizations (DDMMOs) as a preliminary reference point for planning their trips [1]. The websites of DDMMOs are regarded as primary sources of information for travelers [2], and they can influence tourists' behaviors and decisions [3]. Existing research has indicated that users' attitudes regarding a place and their intention to visit it are affected by the quality of DDMMO websites [4]. In this equation, the existing destination image appears to play a pivotal role. Destination websites can enhance destination image [5], which can, in turn, have a substantial positive impact on tourists' satisfaction and intention to visit, revisit, and recommend a place [6,7].

At the same time, Metaverse technology will stimulate a significant disruption in tourism [8], as it has the potential to significantly enhance the social ties between travelers and tourism stakeholders [9], such as DDMMOs. According to Dwivedi et al. [10], "Metaverse has the potential to extend the physical world using augmented and virtual reality technologies allowing users to seamlessly interact within real and simulated environments using avatars and holograms". As a result, users of Metaverse platforms may have the opportunity to engage in a range of pre-, mid-, and post-travel experiences [11]. For example, by using immersive technology devices such as VR headsets, users can virtually visit a historical site and have a near-realistic experience [12]. Metaverse technology allows users to get a taste

of a destination before traveling to it [13]. However, the Metaverse is still more conceptual than it is applied, as its implementation has not yet been expanded [14]. In terms of the technology behind the Metaverse, there is room for improvement in terms of its ability to offer a full experience to users. Therefore, as the use of the Metaverse in destination marketing is limited, empirical research on Metaverse applications is underdeveloped.

Based on the above, it can be suggested that Metaverse platforms may serve as a crucial tool for the demand side of the tourism industry [15]. Consequently, they may prove to be valuable resources for DDMMOs in promoting a destination and enhancing the offered experience. While the relationship between destination website quality, destination image, and the intention to visit a physical place has been extensively studied (e.g., [4,7,16]), this study attempts to take into consideration the Metaverse and empirically assess the role of destination website quality, destination image, and a user's intention to visit a destination through Metaverse platforms. Thus, our aim is to determine if the quality of a DDMMO website and the existing destination image influence a user's intention to visit a place by using Metaverse technology.

To set the scene for our study, destination website quality, destination image, and tourists' intention to use Metaverse platforms are discussed in Section 2, and the research hypotheses are developed. The quantitative methodology that was employed can be found in Section 3, while Section 4 presents the primary results of analyzing the data. Section 5 discusses the findings of this study as well as their relevance to the existing literature. Finally, Section 6 summarizes the key findings and makes suggestions for future research.

2. Literature Review

2.1. Destination Website Quality

The advent of the Internet has had a profound impact on the tourism and travel industry [17], provoking DDMMOs to recognize the critical role that a website can play in their marketing strategies [18]. As a result, the evaluation of destination websites has become a topic of considerable interest within the academic community [19]. According to Loureiro [4], destination website quality is a "tourist's overall judgment of a website's excellence and superiority". In their study, Han and Mills [20] examine the effectiveness of websites in the hospitality and tourism industry. Their analysis revealed a total of 47 different tools that share three common categories for evaluation: aesthetic, informational, and interactive features. In a study that examines the communication path of destination websites, Tang et al. [21] evaluated websites using two latent variables: information quality (usefulness, relevance, timeliness, and sufficiency) and website design (ease of use, layout, functionality, and appearance).

In a similar vein, Fernández-Cavia et al. [22] presented an assessment tool for destination websites, the Web Quality Index (WQI). The WQI comprises four principal categories of indicators for assessment: technical aspects, including accessibility and usability; communicative aspects, such as content quality; relational aspects, including interactivity; and, finally, persuasive aspects, including branding. Using the same four variables, two recent studies examined the quality of destination websites. In a related study, Jiménez-Barreto and Campo-Martínez [23] investigated the websites of Spanish islands and demonstrated that website quality has a significant impact on a user's willingness to engage in the co-creation of the experiences they intend to engage in. Similarly, Loureiro [4] found that website quality can influence a user's attitude towards a destination, which consequently affects their intention to visit and recommend a place. Both studies employed similar evaluation frameworks, encompassing website design, ease of use, information content, and interactivity, to assess website quality.

2.2. Destination Image

DDMMOs invest a significant number of resources to cultivate a favorable image of their destinations [24]. This is because such an image is of pivotal importance in attracting prospective visitors [25]. The majority of tourists rely significantly on their perceived image

when deciding where to travel [26]. Crompton [27] defines destination image as “the sum of beliefs, ideas, and impressions that a person has of a destination”. Baloglu and McCleary [28] suggest that the overall image is influenced by the cognitive and affective image. The term “cognitive image” is employed to describe beliefs and knowledge about a destination, whereas the term “affective image” is used to characterize sentiments associated with it [29,30]. Prior research indicates that the cognitive image exerts a positive influence on the affective image. For example, Beerli and Martin [31] examined the formation of tourist destination images among tourists who visited the Canary Islands. They posit that the affective image can function as a mediator between the cognitive image and the overall image. In a survey conducted by Phillips and Jang [32] focused on New York City, both the cognitive and affective images were found to have a positive impact on attitudes toward a destination. Furthermore, the affective image was identified as a mediator in the relationship between the other two variables. In the same vein, Lin et al. [33] revealed the mediating role of the affective image in the nexus between the cognitive image and tourists’ preferences regarding natural and developed destinations.

In recent decades, searching for information about a destination online has become a very common practice for travelers [17]; therefore, DDMMOs should use their websites for destination marketing and branding purposes [34]. Jeong et al. [5], by testing two groups of US students on the destination image of Korea, showed that those who visited the Korea Tourism Organization website before answering the research questionnaire had a better cognitive and overall image of the destination. In addition, Rodríguez-Molina et al. [35] examined the influence of website design on travelers’ destination image and concluded that there is a positive relationship between the two when emotional messages are used. Finally, Foroudi et al. [7] studied tourists in London and suggested that the quality dimensions of a destination website such as visual appeal, navigation, credibility, information, and persuasiveness can affect tourists’ image of a destination. Based on the above, the following hypotheses are proposed (Figure 1).

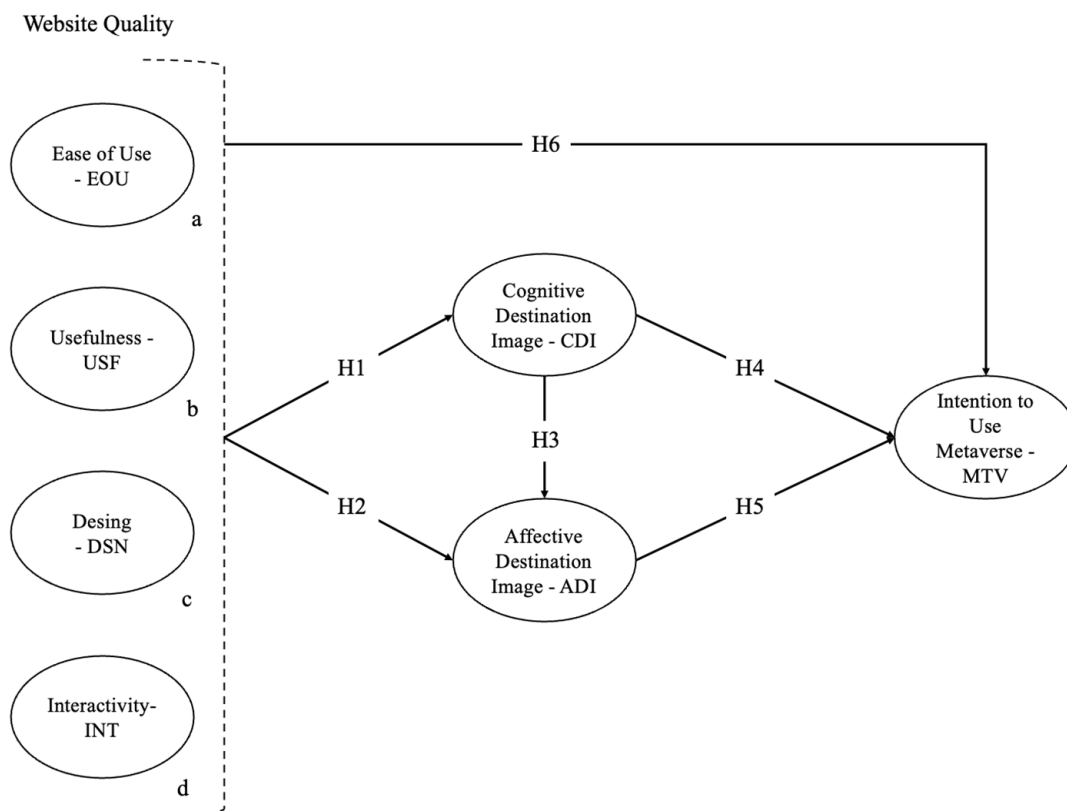


Figure 1. Conceptual framework.

- H1.** *Destination website quality has a positive effect on a user's cognitive destination image.*
- H2.** *Destination website quality has a positive effect on a user's affective destination image.*
- H3.** *A user's cognitive destination image has a positive effect on their affective destination image.*

2.3. Metaverse Platforms in the Tourism Industry

The term “Metaverse” was first introduced in 1992 in the science fiction novel “Snow Crash” by Neal Stephenson [36]. It is derived from the Greek word “meta”, meaning “beyond”, and the word “universe” [11]. In the context of the tourism industry, the term “Metaverse” is used to describe virtual environments that provide spatial experiences for tourists. Engagement with these Metaverse environments has the potential to enhance tourist's interaction with a destination, service, or product. These environments integrate the physical and virtual realms, created through the use of different infrastructures, sensory inputs, and advanced technologies [8].

Today, tourists' behaviors and decision-making processes are influenced by their turbulent external environment, which is characterized by the emergence of global public health crises (e.g., COVID-19 pandemic), geopolitical threats (e.g., armed conflicts), climate change, and disaster risks. In response to these challenges, tourists may consider using tourism services and products virtually, thereby avoiding high costs and risks while still receiving the expected benefits [37]. However, despite the Metaverse's intended purpose, i.e., promoting natural interaction in both physical and virtual spaces, its full potential remains unexplored in the tourism industry [11,38]. Only within the context of the gaming industry is there evidence of mainstream adoption of Metaverse technology [11]. Therefore, the majority of studies on tourism and Metaverse platforms are conceptual and focus on future research agendas (e.g., [8,37,39,40]).

As proposed by Buhalis et al. [11], Metaverse platforms have the potential to be utilized in three distinct phases of the tourism experience: before, during, and after the trip. In the pre-travel phase, Metaverse platforms can provide an initial experience of the destination for users. Users may engage in virtual navigation to the destination, undertake virtual tours of the area and its historic monuments, and acquire a preliminary experience of local facilities such as hotels and restaurants. During a trip, the Metaverse has the potential to enhance users' experiences by providing audiovisual information. After the trip, users can recall and share their experiences by using Metaverse platforms. In the present study, we examine potential visitors' intention to use Metaverse platforms during the pre-travel phase.

The existing empirical research on this topic is notably scarce and predominantly pertains to platforms that offer interactive three-dimensional virtual experiences. However, these do not yet fully realize the potential of the Metaverse, that is, the provision of fully hyper-realistic experiences [11]. In one of the few empirical studies on this topic, Zhang and Wang [41] conducted a survey of Chinese tourists who reported having Metaverse tourism experiences in the past. The results of their survey showed there was a positive effect of metaverse storytelling on the intention to visit the real destination. Similarly, in a study on users who had taken a virtual tour using the Zepeto platform, Shin and Kang [42] showed that their experience has a positive effect on telepresence, which, in turn, has a positive effect on both virtual and actual travel intentions.

Furthermore, the potential of using Metaverse platforms as marketing tools to influence users' intention to visit a destination was explored by Tsai et al. [9]. In their study, they used a twenty-minute virtual tour to assess individuals' perceptions of Kyoto as a destination. The findings indicate that the sense of holistic presence and the hedonic and eudaimonic happiness derived from the use of the platform had a significant impact on the actual intention to visit this destination. Given that the relationship between the use of a destination Metaverse platform and the intention to visit the actual destination has already

been examined and is positive, it is essential to identify the factors that provoke tourists to use such platforms.

As previous studies show, website quality dimensions have a significant positive effect on willingness to participate in the online co-creation of experiences [23], on the emotional experience provoked by a destination [43], on a user's attitude toward a destination, and on the intention to visit a destination [4]. In addition, overall satisfaction with a destination [44] and intention to visit it [45] are influenced by the pre-existing destination image. Given these findings, it is reasonable to conclude that the quality of a destination website and the image of said destination have a significant positive impact on individuals' intention to visit it. In light of this and the lack of empirical research on Metaverse platforms, it can be hypothesized that these aforementioned variables may also have a significant positive impact on individuals' intention to visit a virtual location. Therefore, the following hypotheses are proposed (Figure 1).

H4. *A user's cognitive destination image has a positive effect on their intention to use the destination's Metaverse platform.*

H5. *A user's affective destination image has a positive effect on their intention to use the destination's Metaverse platform.*

H6. *A destination website's quality has a positive effect on a user's intention to use the corresponding destination's Metaverse platform.*

3. Methodology

In order to test the aforementioned hypotheses, four actual websites of European cities were selected for analysis. The selected cities were Zurich, Reykjavik, Copenhagen, and Bruges. Bruges and Reykjavik were selected as examples of two European cities experiencing overtourism (<https://www.themayor.eu/en/a/view/which-european-cities-suffer-the-most-from-overtourism-11812> accessed on 16 September 2024), where the pressure on infrastructure and local life necessitates the implementation of innovative destination management strategies. Conversely, Zurich and Copenhagen were selected as examples of two of the best cities to live in Europe (https://www.forbes.com/sites/laurabegleybloom/2023/06/21/ranked-20-best-cities-to-live-in-the-world-according-to-a-new-report/?fbclid=IwAR1i5EULhGXdv3uMYScO9Xhsq1L-RUOMqH94LwsjFnfe9nxLaUm-0w9_9qs&utm_source=pocket_shared accessed on 16 September 2024), reflecting a balance between high quality of life and sustainable tourism practices. This selection provides a meaningful contrast, enabling an exploration of how cities with different tourism pressures may adopt diverse approaches and strategies to attract visitors while addressing their unique challenges.

Furthermore, these four cities were specifically chosen for their geographical distance from Cyprus, where the survey was conducted. This distance adds relevance to the idea of utilizing Metaverse platforms, as it highlights the potential value of virtually visiting these destinations, offering a near-realistic experience without the need for physical travel.

The four websites examined are included in the City Destination Alliance (Table 1).

Table 1. Destination websites.

Destination	Website
1—Zurich	https://www.zuerich.com/
2—Reykjavik	https://visitreykjavik.is/
3—Copenhagen	https://www.visitcopenhagen.com/
4—Bruges	https://www.visitbruges.be/

Data for this study were collected through a self-administered questionnaire distributed to business and computer science students at a university in Cyprus. Participants were selected based on their enrollment in courses related to digital technologies and their familiarity with the concept of the Metaverse. Prior to completing the questionnaire, participants were instructed to visit and navigate one of four destination websites for a period of ten minutes. This amount of time was considered sufficient to process the information presented on the websites, as evidenced by previous research [5].

The destination websites were randomly assigned to the participants. However, to avoid potential bias, participants were asked at the beginning of the task whether they had visited the destination before or planned to visit it within the next five years. If the answer was yes, the specific destination was excluded for that participant and another destination was assigned.

The questionnaires were identical for each destination website and consisted of 37 items. The first three questions were demographic in nature, asking about a participant's gender, age, and frequency of international travel. The remaining 34 items were designed to measure seven latent variables. Ease of Use (EOU) and Usefulness (USF) were measured with six items each, Design (DSN) was measured with five items, and Interactivity (INT) was measured with three items. The items of the aforementioned four latent variables were derived from the work of Jimenez-Barreto and Campo-Martinez [23], Tsai [1], and Kim and Niehm [46]. Cognitive destination image (CDI) and affective destination image (ADI) were assessed with seven and four items, respectively, adapted from Noh and Vogt [45]. Finally, the intention to use metaverse platforms (MTV) was measured with three items adapted from Chakraborty et al. [47]. The 34 items were scored on a five-point Likert scale, with 1 indicating "strongly disagree" and 5 indicating "strongly agree" (Table A1).

4. Findings

A total of 318 questionnaires were completed. The majority of the respondents fell within the 18–24 age range. The gender distribution of the respondents was 54% male and 46% female. Additionally, with regard to travel frequency, 20% of the respondents travel less than once per year, 25% travel once per year, 37% travel two to three times per year, 12% travel four to five times per year, and 5% travel more than five times per year.

With regard to the destinations, 87 (27%) of the questionnaires were for Zurich, 84 (26%) were for Reykjavik, 69 (22%) were for Copenhagen, and 78 (25%) were for Bruges. A Kruskal–Wallis test was conducted due to the non-parametric nature of the data for each group. The results of the Kruskal–Wallis test indicated that there were no significant differences between the questionnaires for the four destinations (see Table 2). Consequently, the questionnaires for the four destinations could be analyzed together.

Table 2. Kruskal–Wallis test.

Variables	χ^2	<i>p</i>
EOU	2.88	0.410
USF	3.71	0.295
DSN	2.67	0.446
INT	5.05	0.168
CDI	1.65	0.648
ADI	1.08	0.781
MTV	2.42	0.490

Prior to conducting a structural equation modeling (SEM) analysis and testing the hypotheses, it was necessary to verify that the latent variable measures were consistent with the theory. As observed, all the construct values exceed the threshold limits of the reliability and validity tests. With regard to composite reliability (CR), our values are considerably higher than the limit of 0.60, and the values of the average variance extracted (AVE) exceed

the limit of 0.50 [48]. Furthermore, the values of Cronbach’s alpha (α) surpass the limit of 0.60 [48] (Table 3).

Table 3. Factor loadings, CR, AVE, and Cronbach’s alpha.

Variables	Items	FL	CR	AVE	α
Ease of Use (EOU)	EOU1	0.87	0.94	0.72	0.92
	EOU2	0.90			
	EOU3	0.88			
	EOU4	0.86			
	EOU5	0.69			
	EOU6	0.88			
Usefulness (USF)	USF1	0.87	0.94	0.72	0.92
	USF2	0.88			
	USF3	0.87			
	USF4	0.80			
	USF5	0.86			
	USF6	0.79			
Design (DSN)	DSN1	0.85	0.93	0.74	0.91
	DSN2	0.81			
	DSN3	0.89			
	DSN4	0.85			
	DSN5	0.89			
Interactivity (INT)	INT1	0.86	0.82	0.62	0.69
	INT2	0.88			
	INT3	0.58			
Cognitive Destination Image (CDI)	CDI1	0.82	0.91	0.59	0.88
	CDI2	0.76			
	CDI3	0.70			
	CDI4	0.84			
	CDI5	0.74			
	CDI6	0.77			
	CDI7	0.73			
Affective Destination Image (ADI)	ADI1	0.85	0.90	0.70	0.85
	ADI2	0.88			
	ADI3	0.86			
	ADI4	0.73			
Intention to Use Metaverse (MTV)	MTV1	0.96	0.97	0.93	0.96
	MTV2	0.97			
	MTV3	0.96			

Furthermore, we evaluated discriminant validity in accordance with the criteria established by Fornell and Larcker [49]. As demonstrated in Table 4, the square roots of the AVE values (presented in parentheses) for the constructs are greater than the correlations between the constructs, thereby confirming the discriminant validity of our variables.

Table 4. Mean, standard deviation, and discriminant validity.

Variables	Mean	SD	EOU	USF	DSN	INT	CDI	ADI	MTV
EOU	3.95	0.88	(0.85)						
USF	3.86	0.83	0.72 ***	(0.85)					
DSN	3.77	0.97	0.65 ***	0.62 ***	(0.86)				
INT	2.99	1.00	0.31 ***	0.39 ***	0.38 ***	(0.79)			
CDI	3.81	0.74	0.59 ***	0.71 ***	0.74 ***	0.41 ***	(0.77)		
ADI	3.91	0.77	0.55 ***	0.55 ***	0.56 ***	0.30 ***	0.69 ***	(0.83)	
MTV	3.18	1.25	0.27 ***	0.29 ***	0.37 ***	0.35 ***	0.40 ***	0.41 ***	(0.96)

Note: *** $p < 0.001$.

Next, we conducted a structural equation modeling (SEM) analysis to examine the relationship between the four exogenous variables (EOU, USF, DSN, and INT) and the three endogenous variables (CDI, ADI, and MTV). The results showed that the model is acceptable and was fitted with an $\chi^2 = 792.37$ ($p < 0.001$), a Comparative Fit Index (CFI) of 0.95 (>0.90), a Tucker–Lewis Index (TLI) of 0.95 (>0.90), a Goodness-of-Fit Index (GFI) of 0.95 (>0.90), and an RMSEA of 0.04 (≤ 0.05) [50].

The results of the model are presented in Figure 2. The initial two hypotheses proposed that website quality would have a positive impact on both the cognitive destination image (H1) and the affective destination image (H2). Given that website quality comprises four factors (ease of use, usefulness, design, and interactivity), four sub-hypotheses were formulated for each of the two hypotheses, H1a–H1d and H2a–H2d. The results of our study indicated that usefulness (USF) ($\beta = 0.47$, $p < 0.001$) and design (DSN) ($\beta = 0.58$, $p < 0.001$) have a significant positive effect on cognitive destination image (CDI), thereby supporting H1b and H1c. However, H1a and H2d are not supported. Therefore, H1 is partially supported. With regard to H2, none of the website quality dimensions have a significant impact on affective destination image (ADI), and thus H2 must be rejected.

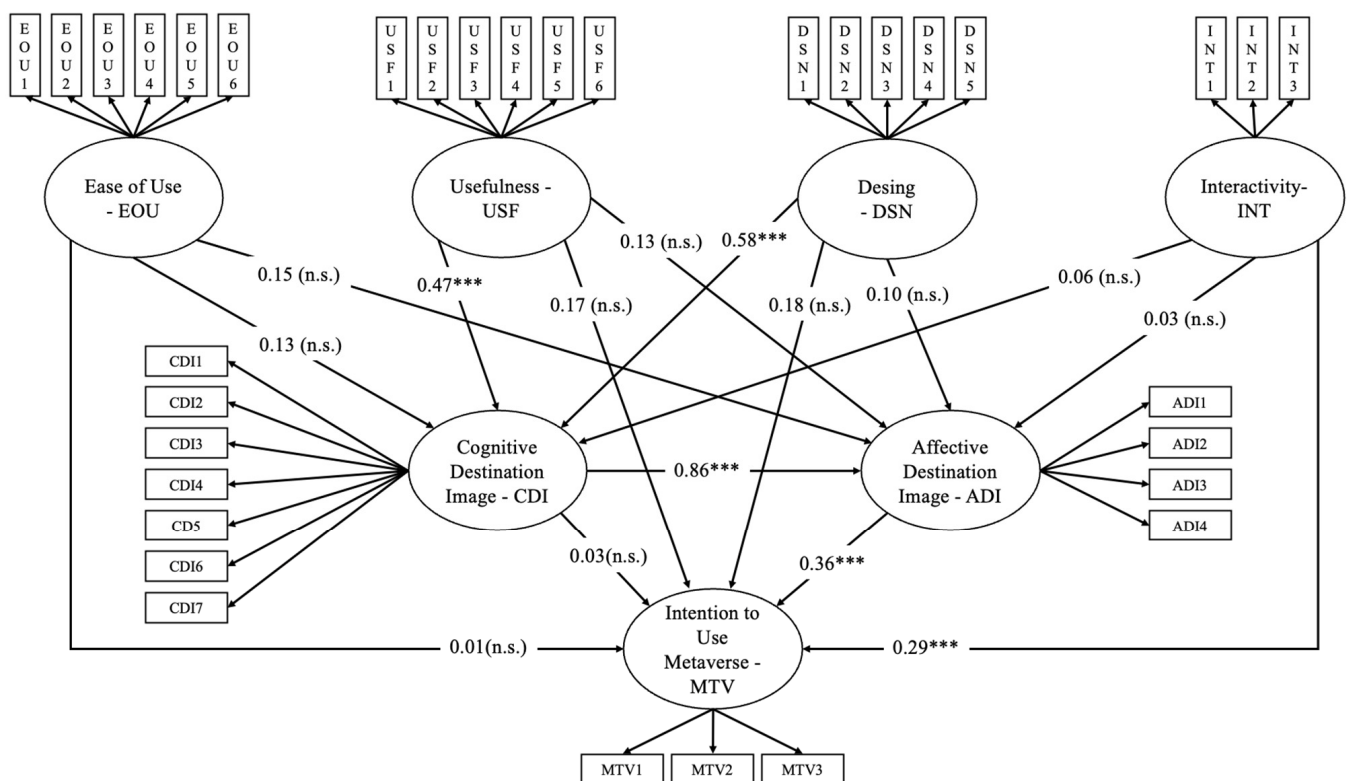


Figure 2. Model showing structural path coefficients of hypothesized relations. Note: standardized are coefficients shown. *** = $p < 0.001$, n.s. = not significant.

Furthermore, the analysis revealed that cognitive destination image (CDI) ($\beta = 0.86$, $p < 0.001$) has a significant positive effect on affective destination image (ADI), supporting H3. Furthermore, cognitive destination image (CDI) ($\beta = 0.03$, $p > 0.05$) has no significant effect on a user's intention to use the Metaverse platform (MTV), so H4 can be rejected. On the contrary, affective destination image (ADI) has a significant positive effect on a user's intention to use the Metaverse platform (MTV). The result supports H5. Finally, the results showed that regarding website quality, only interactivity (INT) has a significant positive effect on a user's intention to use the Metaverse platform, as the other variables have no significant effects. Therefore, H6 is partially supported.

5. Discussion

This study examines the influence of destination website quality and destination image on a user's intention to use a Metaverse platform and experience the destination through this disruptive technology. The results show that the more useful a destination website is (sufficient, accurate, and updated information) and the better it is designed (appropriate colors, fonts, features, and multimedia content), the more likely it is to enhance the cognitive image of the destination. This means that users are more likely to perceive the destination as having, among other things, natural scenic beauty, friendly locals, good food, and interesting attractions. These findings are consistent with the results of previous research. Foroudi et al. [7] and Jeong et al. [5] show that a destination website can influence a user's cognitive image of a destination. In contrast, the website does not appear to have a direct influence on the affective image.

Furthermore, the results of this study show that the cognitive image of a destination has a significant positive impact on the affective image of a destination. Users who believe that a destination offers a lot of things to see and do (corresponding to the cognitive image) tend to have positive feelings about the destination and perceive it as more pleasant, exciting, and relaxing (constituting the affective image). This finding is consistent with the results obtained by Lin et al. [33], who demonstrated the mediating role of a user's affective image in the relationship between cognitive and overall images. Furthermore, Phillips and Jang [32] showed that a cognitive image has a significant positive effect on an affective image, and the latter serves as a mediator in the relationship between cognitive image and tourist attitude. These studies also provide a justification for the lack of support for H4, as cognitive destination image does not have a direct effect on the intention to use metaverse platforms but rather affect affective image. The lack of support for H2 and H4 shows that cognitive destination image act as a mediator in the relationship between website quality and affective image.

In addition, the results show that a destination's affective image has a significant positive effect on a user's intention to use the destination's Metaverse platform. The more positive feelings the user has about a destination, the more likely they are to travel to the destination through the Metaverse. This finding is corroborated by Noh and Vogt [45], who examined the influence of destination image and perceived risk on US citizens' intentions to travel to three countries in East Asia. In the three models developed (one for each country), the affective image had a significant positive impact on the respondents' intentions to travel to these destinations.

Finally, the results of our analysis show that interactivity has a direct, significant positive impact on intention to use the Metaverse. When users have the opportunity to see content from other users, share their opinions, and generally interact with a website, they are more likely to use a destination's Metaverse platform. This result is consistent with the conclusions reached by Jiménez-Barreto and Campo-Martínez [23], who showed that the interactivity of a destination website has a significant positive impact on a user's willingness to engage in online co-creation experiences.

6. Conclusions

This study represents one of the first empirical attempts to elucidate the relationship between destination website quality, destination image, and intention to travel virtually through a Metaverse platform. The results indicate that website interactivity can directly influence the use of Metaverse platforms, while website usefulness and design have an indirect effect through destination image. Furthermore, the results show that the destination image has a significant positive effect on a user's intention to use a Metaverse platform. The affective image has a direct effect, while the cognitive image has an indirect effect.

The findings of this research have significant implications at both the theoretical and practical levels. In terms of theoretical implications, this study makes a contribution to three academic areas: the dimensions of website quality, destination image, and the technology acceptance model. First, this study reveals which website quality dimensions can affect destination image and the intention to use a specific technology, thus extending previous work (e.g., [4,23,43]). Furthermore, our findings elucidate the role of destination image in the utilization of Metaverse platforms, thereby enriching the theoretical underpinnings of destination marketing. Ultimately, the results build upon the technology acceptance model [51] by incorporating novel variables that influence the intention to adopt a novel technology.

In terms of practical implications, this study can provide guidance to DMMOs and tourism-related practitioners regarding the design and development of destination websites. It is recommended that particular attention be paid to interactivity, design features, and the information provided on these websites. This is because such elements are more likely to improve users' destination image and increase their engagement, which, in turn, may lead to the use of Metaverse platforms. Furthermore, this study suggests that Metaverse platforms have the potential to serve as an effective instrument for the promotion of lesser-known destinations. This is due to their capacity to mitigate geographical constraints and attract tourists who may otherwise be unaware of such places. DMMOs should consider the development of dedicated Metaverse experiences as a supplement to conventional marketing techniques, thus enabling potential tourists to explore destinations virtually prior to making travel-related decisions.

The present study demonstrates that a user's intention to use a Metaverse platform is influenced by the interrelationships between destination website quality and cognitive and affective images. Further research could investigate the actual use of a Metaverse platform. This was not feasible at the time of writing this manuscript, as Metaverse platforms that provide hyper-realistic experiences are not yet fully developed and functional for the tourism industry [11,14,38]. Additionally, the sample of this study was limited to respondents in Cyprus. Given that cultural values influence decisions regarding technological innovations [52], future studies should replicate this research using different samples to increase the generalizability of the results. Finally, future research could examine other factors that may influence users' decisions to use destination Metaverse platforms, such as perceived risk, hedonic values, and subjective norms.

Author Contributions: Conceptualization, G.A.D., E.V. and E.E.A.; methodology, G.A.D., E.V. and E.E.A.; validation, G.A.D., E.V. and E.E.A.; formal analysis, G.A.D., E.V. and E.E.A.; data curation, G.A.D., E.V. and E.E.A.; writing—original draft, G.A.D., E.V. and E.E.A.; writing—review and editing, G.A.D., E.V. and E.E.A. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki, and approved by the Institutional Review Board of Neapolis University Pafos (protocol number 71/2024).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available upon reasonable request from the corresponding author.

Conflicts of Interest: The authors declare no conflicts of interest.

Appendix A

Table A1. Scale items.

Variables	Items
EOU	EOU1—It is easy to navigate the website [23]. EOU2—I am navigated with effectiveness throughout this website [1]. EOU3—I can quickly find the sections I want to see [23]. EOU4—The website has well-organized categories [23]. EOU5—The text on the website is easy to read [46]. EOU6—I find the website easy to use [46].
USF	USF1—The website provides sufficient information [23]. USF2—The information on the website seems useful [23]. USF3—The website provides accurate and high quality information [46]. USF4—The website provides updated information [46]. USF5—The website is a good source of information about the destination [23]. USF6—I can find what I need in the website [46].
DSN	DSN1—The website is attractive [23]. DSN2—The website correctly uses multimedia contents [23]. DSN3—The colors used on the website are appropriate [23]. DSN4—The font used on the website seems correct [23]. DSN5—The website features beautiful design [1].
INT	INT1—The website allows me to see the content from others regarding the destination [23]. INT2—I can share my opinions and contact others on the website [23]. INT3—I can interact with the website in order to get information tailored my specific needs [46].
CDI	CDI1—The destination seems to have many things to see and do [45]. CDI2—The destination seems to have natural scenic beauty [45]. CDI3—The destination seems to be easy to navigate [45]. CDI4—The destination seems to have plenty of quality accommodations [45]. CDI5—The destination seems to have friendly local people [45]. CDI6—The destination seems to have appealing local food and drink [45]. CDI7—The destination seems to have interesting historical attractions [45].
ADI	ADI1—The destination seems to be sleepy—arousing [45]. ADI2—The destination seems to be unpleasant—pleasant [45]. ADI3—The destination seems to be gloomy—exciting [45]. ADI4—The destination seems to be distressing—relaxing [45].
MTV	MTV1—I intend to use the destination’s metaverse platform to experience that destination before I travel there [47]. MTV2—I intend to use the destination’s metaverse platform to experience the cultural heritage and archaeological sites of that destination before traveling there [47]. MTV3—I intend to use the destination’s metaverse platform to experience various events at that destination before traveling there [47].

References

1. Tsai, S.P. E-loyalty driven by website quality: The case of destination marketing organization websites. *J. Org. Comp. Elect. Com.* **2017**, *27*, 262–279. [\[CrossRef\]](#)
2. Choi, J.; Ok, C.; Choi, S. Outcomes of destination marketing organization website navigation: The role of telepresence. *J. Travel Tour. Mark.* **2016**, *33*, 46–62. [\[CrossRef\]](#)
3. Lee, W.; Gretzel, U. Designing persuasive destination websites: A mental imagery processing perspective. *Tour. Manag.* **2012**, *33*, 1270–1280. [\[CrossRef\]](#)
4. Loureiro, S.M.C. The role of website quality on PAD, attitude and intentions to visit and recommend island destination. *Int. J. Tour. Res.* **2015**, *17*, 545–554. [\[CrossRef\]](#)
5. Jeong, C.; Holland, S.; Jun, S.H.; Gibson, H. Enhancing destination image through travel website information. *Int. J. Tour. Res.* **2012**, *14*, 16–27. [\[CrossRef\]](#)

6. Kanwel, S.; Lingqiang, Z.; Asif, M.; Hwang, J.; Hussain, A.; Jameel, A. The influence of destination image on tourist loyalty and intention to visit: Testing a multiple mediation approach. *Sustainability* **2019**, *11*, 6401. [\[CrossRef\]](#)
7. Foroudi, P.; Akarsu, T.N.; Ageeva, E.; Foroudi, M.M.; Dennis, C.; Melewar, T.C. Promising the dream: Changing destination image of London through the effect of website place. *J. Bus. Res.* **2018**, *83*, 97–110. [\[CrossRef\]](#)
8. Go, H.; Kang, M. Metaverse tourism for sustainable tourism development: Tourism agenda 2030. *Tour. Rev.* **2023**, *78*, 381–394. [\[CrossRef\]](#)
9. Tsai, S.P. Investigating metaverse marketing for travel and tourism. *J. Vacat. Mark.* **2024**, *30*, 479–488. [\[CrossRef\]](#)
10. 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.; et al. Metaverse beyond the hype: Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *J. Glob. Inf. Manag.* **2022**, *66*, 102542. [\[CrossRef\]](#)
11. Buhalis, D.; Leung, D.; Lin, M. Metaverse as a disruptive technology revolutionising tourism management and marketing. *Tour. Manag.* **2023**, *97*, 104724. [\[CrossRef\]](#)
12. Rauschnabel, P.A.; Babin, B.J.; tom Dieck, M.C.; Krey, N.; Jung, T. What is augmented reality marketing? Its definition, complexity, and future. *J. Bus. Res.* **2022**, *142*, 1140–1150. [\[CrossRef\]](#)
13. Loureiro, S.M.C.; Guerreiro, J.; Ali, F. 20 years of research on virtual reality and augmented reality in tourism context: A text-mining approach. *Tour. Manag.* **2020**, *77*, 104028. [\[CrossRef\]](#)
14. Buhalis, D.; Efthymiou, L.; Uzunboylu, N.; Thrassou, A. Charting the progress of technology adoption in tourism and hospitality in the era of industry 4.0. *EuroMed J. Bus.* **2024**, *19*, 1–20. [\[CrossRef\]](#)
15. Ioannidis, S.; Kontis, A.P. Metaverse for tourists and tourism destinations. *Inf. Technol. Tour.* **2023**, *25*, 483–506. [\[CrossRef\]](#)
16. Chung, N.; Lee, H.; Lee, S.J.; Koo, C. The influence of tourism website on tourists' behavior to determine destination selection: A case study of creative economy in Korea. *Technol. Forecast. Soc.* **2015**, *96*, 130–143. [\[CrossRef\]](#)
17. Luna-Nevarez, C.; Hyman, M.R. Common practices in destination website design. *J. Destin. Mark. Manag.* **2012**, *1*, 94–106. [\[CrossRef\]](#)
18. Law, R.; Qi, S.; Buhalis, D. Progress in tourism management: A review of website evaluation in tourism research. *Tour. Manag.* **2010**, *31*, 297–313. [\[CrossRef\]](#)
19. Sun, S.; Fong, D.K.C.; Law, R.; He, S. An updated comprehensive review of website evaluation studies in hospitality and tourism. *Int. J. Contemp. Hosp. Manag.* **2017**, *29*, 355–373. [\[CrossRef\]](#)
20. Han, J.H.; Mills, J.E. Zero acquaintance benchmarking at travel destination websites: What is the first impression that national tourism organizations try to make? *Int. J. Tour. Res.* **2006**, *8*, 405–430. [\[CrossRef\]](#)
21. Tang, L.R.; Jang, S.S.; Morrison, A. Dual-route communication of destination websites. *Tour. Manag.* **2012**, *33*, 38–49. [\[CrossRef\]](#)
22. Fernández-Cavia, J.; Rovira, C.; Díaz-Luque, P.; Cavaller, V. Web Quality Index (WQI) for official tourist destination websites. Proposal for an assessment system. *Tour. Manag. Perspect.* **2014**, *9*, 5–13. [\[CrossRef\]](#)
23. Jiménez-Barreto, J.; Campo-Martínez, S. Destination website quality, users' attitudes and the willingness to participate in online co-creation experiences. *Eur. J. Manag. Bus. Econ.* **2018**, *27*, 26–41. [\[CrossRef\]](#)
24. MacKay, K.J.; Fesenmaier, D.R. Pictorial element of destination in image formation. *Ann. Tour. Res.* **1997**, *24*, 537–565. [\[CrossRef\]](#)
25. Vlassi, E.; Deirmentzoglou, G.A.; Agoraki, K.K.; Papatheodorou, A. When Tourism and Fashion Cocreate: Narratives from Greece. In *Fashion and Tourism: Parallel Stories*; Emerald Publishing Limited: Bingley, UK, 2023; pp. 93–106.
26. Beerli, A.; Martin, J.D. Factors influencing destination image. *Ann. Tour. Res.* **2004**, *31*, 657–681. [\[CrossRef\]](#)
27. Crompton, J.L. An assessment of the image of Mexico as a vacation destination and the influence of geographical location upon that image. *Travel Res.* **1979**, *17*, 18–23. [\[CrossRef\]](#)
28. Baloglu, S.; McCleary, K.W. A model of destination image formation. *Ann. Tour. Res.* **1999**, *26*, 868–897. [\[CrossRef\]](#)
29. Vlassi, E.; Deirmentzoglou, G.A.; Irakleidi, E. Capturing Destination's Cognitive and Affective Image on Social Media. The Case of Pafos, Cyprus. In *The International Conference on Strategic Innovative Marketing and Tourism*; Springer: Cham, Switzerland, 2023; pp. 19–28.
30. Baloglu, S.; Brinberg, D. Affective images of tourism destinations. *J. Travel Res.* **1997**, *35*, 11–15. [\[CrossRef\]](#)
31. Beerli, A.; Martin, J.D. Tourists' characteristics and the perceived image of tourist destinations: A quantitative analysis—A case study of Lanzarote, Spain. *Tour. Manag.* **2004**, *25*, 623–636. [\[CrossRef\]](#)
32. Phillips, W.; Jang, S. Destination image and tourist attitude. *Tour. Anal.* **2008**, *13*, 401–411.
33. Lin, C.H.; Morais, D.B.; Kerstetter, D.L.; Hou, J.S. Examining the role of cognitive and affective image in predicting choice across natural, developed, and theme-park destinations. *J. Travel Res.* **2007**, *46*, 183–194. [\[CrossRef\]](#)
34. Wan, C.S. The web sites of international tourist hotels and tour wholesalers in Taiwan. *Tour. Manag.* **2002**, *23*, 155–160. [\[CrossRef\]](#)
35. Rodríguez-Molina, M.A.; Frías-Jamilena, D.M.; Castañeda-García, J.A. The contribution of website design to the generation of tourist destination image: The moderating effect of involvement. *Tour. Manag.* **2015**, *47*, 303–317. [\[CrossRef\]](#)
36. Lee, L.H.; Braud, T.; Zhou, P.; Wang, L.; Xu, D.; Lin, Z.; Kumar, A.; Bermejo, C.; Hui, P. All one needs to know about metaverse: A complete survey on technological singularity, virtual ecosystem, and research agenda. *arXiv* **2021**, arXiv:2110.05352.
37. Gursoy, D.; Malodia, S.; Dhir, A. The metaverse in the hospitality and tourism industry: An overview of current trends and future research directions. *J. Hosp. Market. Man.* **2022**, *31*, 527–534. [\[CrossRef\]](#)
38. Sánchez-Amboage, E.; Enrique Membiela-Pollán, M.; Martínez-Fernández, V.A.; Molinillo, S. Tourism marketing in a metaverse context: The new reality of European museums on meta. *Mus. Manag. Curatorsh.* **2023**, *38*, 468–489. [\[CrossRef\]](#)

39. Koo, C.; Kwon, J.; Chung, N.; Kim, J. Metaverse tourism: Conceptual framework and research propositions. *Curr. Issues Tour.* **2023**, *26*, 3268–3274. [[CrossRef](#)]
40. Yang, F.X.; Wang, Y. Rethinking metaverse tourism: A taxonomy and an agenda for future research. *J. Hosp. Tour. Res.* **2023**, 10963480231163509. [[CrossRef](#)]
41. Zhang, W.; Wang, Y. An empirical study of the impact of metaverse storytelling on intentions to visit. *Inf. Technol. Tour.* **2023**, *25*, 411–432. [[CrossRef](#)]
42. Shin, H.; Kang, J. How does the metaverse travel experience influence virtual and actual travel behaviors? Focusing on the role of telepresence and avatar identification. *J. Hosp. Tour. Manag.* **2024**, *58*, 174–183. [[CrossRef](#)]
43. Zhang, H.; Gordon, S.; Buhalis, D.; Ding, X. Experience value cocreation on destination online platforms. *J. Travel Res.* **2018**, *57*, 1093–1107. [[CrossRef](#)]
44. Lam, J.M.; Ismail, H.; Lee, S. From desktop to destination: User-generated content platforms, co-created online experiences, destination image and satisfaction. *J. Destin. Mark. Manag.* **2020**, *18*, 100490. [[CrossRef](#)]
45. Noh, J.; Vogt, C. Modelling information use, image, and perceived risk with intentions to travel to East Asia. *Curr. Issues Tour.* **2013**, *16*, 455–476. [[CrossRef](#)]
46. Kim, H.; Niehm, L.S. The impact of website quality on information quality, value, and loyalty intentions in apparel retailing. *J. Interact. Mark.* **2009**, *23*, 221–233. [[CrossRef](#)]
47. Chakraborty, D.; Polisetty, A.; Khorana, S.; Buhalis, D. Use of metaverse in socializing: Application of the big five personality traits framework. *Psychol. Market.* **2023**, *40*, 2132–2150.
48. Deirmentzoglou, G.A.; Agoraki, K.K.; Patsoulis, P. The nexus between cultural values and perceptions of corporate sustainable development. *Soc. Responsib. J.* **2024**, *20*, 224–242. [[CrossRef](#)]
49. Fornell, C.; Larcker, D.F. Evaluating structural equation models with unobservable variables and measurement error. *J. Mark. Res.* **1981**, *18*, 39–50. [[CrossRef](#)]
50. Schumacker, R.E.; Lomax, R.G. *A Beginner's Guide to Structural Equation Modeling*; Routledge: New York, NY, USA, 2010.
51. Davis, F.D. Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quart.* **1989**, 319–340. [[CrossRef](#)]
52. Agoraki, K.K.; Deirmentzoglou, G.A.; Triantopoulos, C. Cultural Values as Catalysts of Technological Innovation for a Sustainable Future. *Sustainability* **2024**, *16*, 2064. [[CrossRef](#)]

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.