

Article

Connectivity and Safety: Key Drivers for Tourism Experiences in Remote Regions in the Post-Pandemic Era

Gualter Couto ^{1,*}, Pedro Pimentel ¹, Carlos Santos ², Nuno Cota ³, Ana Rita Beire ³ and André Oliveira ⁴¹ School of Business and Economics and CEEAplA, University of Azores, 9500-321 Ponta Delgada, Portugal; pedro.ms.pimentel@uac.pt² Azores Tourism Observatory, 9504-529 Ponta Delgada, Portugal³ SOLVIT—Innovation on Telecommunications, Lda., 9700-025 Angra do Heroísmo, Portugal⁴ Fundo de Maneio, Lda., 9500-772 Ponta Delgada, Portugal

* Correspondence: gualter.mm.couto@uac.pt

Abstract

Mobile technologies are rapidly growing and shaping the tourism industry. Nonetheless, remote locations have specific characteristics that could restrain the deployment and use of technologies and jeopardize the sense of safety, affecting tourism experiences. There is a lack of empirical research that studies the importance of mobile technologies and security networks in remote destinations. A survey based on the Technology Acceptance Model (TAM) was conducted on 738 tourists during their stay in the Autonomous Region of the Azores, a nine-island Portuguese archipelago, to analyze the importance and impact of mobile technologies and security services. Since tourists have a high intensity of smartphone usage during their stay (86% use mobile internet and almost 50% use smartphones once per hour), mobile communication services and technologies need to be in place. Internet access and Wi-Fi are highly important for tourists for browsing and messaging, especially in urban areas, but also in rural and maritime areas. The availability of emergency and security networks is critical for destination selection and to engage in tourism activities. This paper contributes to the study of mobile tourism in remote destinations, with inputs regarding tourists' behavior, and has implications for governance and industry stakeholders regarding destination management and the creation of meaningful and sustainable experiences with a high value for digital and smart tourists in the post-pandemic era.

Keywords: mobile tourism; Azores; communications; tourism experience; safety



Academic Editor: Lewis Ting
On Cheung

Received: 6 November 2025

Revised: 23 January 2026

Accepted: 27 January 2026

Published: 3 February 2026

Copyright: © 2026 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 \(CC BY\)](https://creativecommons.org/licenses/by/4.0/) license.

1. Introduction

Technological innovations and developments have been bringing about changes in tourists' behavior. Tourists are increasingly well-informed and connected (Corte et al., 2017). They have new habits, using technologies for travel planning (Huang et al., 2017) (e.g., to plan the trip, seek and compare information, choose their destination, and make reservations) and to experience and share experiences (Couto et al., 2022). Among the various technologies, mobile technologies are rapidly growing and shaping the tourism industry (Liang et al., 2017), thereby promoting mobile tourism, referring to the use of mobile technologies in tourism destinations. Recent trends in mobile technologies include the use of augmented reality and gamification techniques (Dorcic et al., 2019). Multiple studies have found a positive effect of smart technologies on tourism experiences (e.g., Um & Chung, 2021). Mobile tourism is relevant to promote smart tourism, where tourism

destinations integrate technologies to provide real-time data to enable more intelligent decision-making (Dorcic et al., 2019).

Despite being suitable for smart tourism (Bulchand-Gidumal, 2022), remote destinations, such as islands and outermost regions, have specific characteristics related to spatial configuration and unique resources (Alipour et al., 2020) that may influence tourists' usage and satisfaction regarding smart tools, particularly those looking for authentic or technology-free experiences. Some of these characteristics are related to the spatial fragmentation (islands) and unique natural resources, which may make it difficult to deploy infrastructures to enhance mobile communications in remote places.

In the post-pandemic era, new concerns regarding destination selection appear, namely the avoidance of mass destinations or those perceived as insecure in terms of public health. Now, tourists require several supplementary commodities related to health risk and social isolation, including seamless Wi-Fi and innovative technology (Tasnim et al., 2023). A study carried out on Asian islands seems to support this hypothesis, but it was related only to domestic travelers, so cultural background may play an important role (Chung et al., 2024).

There is a lack of literature that addresses mobile tourism in remote destinations, especially in the post-pandemic era. It is relevant to understand how important mobile technologies are for tourists, who are increasingly more digital, when they look for destinations with unique characteristics, such as islands, known for their unique natural resources and sense of isolation. To address this empirical gap in the literature, we carried out a survey based on the Technology Acceptance Model (TAM) on tourists visiting the Autonomous Region of the Azores, in Portugal, looking to provide new insights regarding connectivity and safety as key drivers for tourism experiences in remote regions after the COVID-19 pandemic.

The Azores is a nine-island Portuguese archipelago located in the Atlantic Ocean between Europe and America, distributed by three groups of islands: the Western Group (Corvo and Flores islands); the Central Group (Pico, Faial, Terceira, São Jorge, and Graciosa islands); and the Eastern Group (Santa Maria and São Miguel islands). Due to its political-administrative status, the Azores is an Autonomous Region with its own Regional Government. The Azores is positioning itself as a nature and adventure tourism destination, and it is well known for its high commitment to sustainability, especially in the tourism sector. It has received multiple distinctions, and it is the first archipelago to be certified as a sustainable tourism destination (Ponte et al., 2018). Due to the partial liberalization of airspace in 2014, the Azores have been facing rapid growth in tourism demand in recent years, only interrupted by the COVID-19 pandemic, imposing new opportunities and challenges to develop new infrastructures, products, and services.

The Azores aim to become a smart tourism destination, developing a truly sustainable, intelligent, and innovative tourism model, with positive effects for their inhabitants and businesses. The Azores have already implemented some important technological tools that improve tourism experiences, including smart tools, websites with online services, and applications for mobile devices. Nonetheless, there is a low degree of maturity regarding connectivity and sensing, especially in remote places where difficulties in coverage and access to the Internet persist, despite the efforts to offer free connection to the Internet in urban centers, suggesting that there is significant room for improvement to create a genuine and unequivocal technological and intelligent environment (Couto et al., 2022). There are also low levels of satisfaction with free Wi-Fi in public spaces in Ponta Delgada municipality (the main driver of economic and tourism development in the Azores) (Ponte et al., 2019). Despite the detailed analyses presented in these studies, there is also a lack of information regarding the importance of tourists' satisfaction with mobile connectivity and security networks in the Azores.

In this paper, we intend to provide new insights into how mobile communication and security networks act as drivers to enhance tourism experiences in remote destinations in the post-pandemic period, following recommendations in the literature (Dias & Afonso, 2021), using the Azores archipelago as a case study. The following section presents a brief scientific and theoretical background related to previous frameworks adopted in similar studies.

2. Literature Review

Mobile technologies are reshaping the tourism industry, driven by the widespread use of smartphones, apps, and mobile internet in everyday life (Liang et al., 2017). The disruption of the COVID-19 pandemic has accelerated the evolution and adoption of new digital technologies to improve and create new forms of tourism experiences (Gretzel et al., 2020). For instance, an exploratory study concluded that Virtual Reality was a useful tool for tourism companies to address the challenges of the COVID-19 pandemic (Sousa et al., 2023). Virtual Reality can also create alternative experiences when mobility restrictions exist, as in the COVID-19 pandemic, or during the low season, providing new sources of income to companies (Jorge et al., 2023). Overall, technologies for tourism experiences are evolving rapidly, involving virtual and augmented reality, the Internet of Things, wireless communications, sensors, automation, robotization, and artificial intelligence, among others.

As tourists become more connected and digitally oriented, tourism destinations have expanded technology-enabled products and services to create higher-value experiences with a high added value and to remain competitive in the global tourism market (Couto et al., 2022). Smart technologies are also being used to strengthen destination decision-making (Ye et al., 2020), supporting the development of smart tourism destinations. Although tourism is one of the sectors that have adopted technology most intensively among service sectors (Carvalho & Carvalho, 2020), a trend reinforced by the COVID-19 pandemic (Farías & Cancino, 2021; Iskender et al., 2024), with profound changes to business models and in tourism planning, processes, promotion, and marketing, further technological development is still needed to enhance the intelligence of tourism destinations (Jovicic, 2019). From a managerial perspective, technology can improve tourist experiences and satisfaction and contribute to return intentions (Tavitiyaman et al., 2021), yet many tourism stakeholders still underestimate the strategic value of mobile technologies (McCabe et al., 2012). At the policy level, mobile technologies may also help mitigate overtourism and strengthen destination resilience in the post-pandemic context (Fontanari & Traskevich, 2023).

Remote and peripheral regions are attractive destinations (Sanfiel-Fumero et al., 2017), but they have constraints that can limit the deployment and use of new technologies. Their accessibility, physiography, and other attributes can shape expectations and influence perceived experience quality (Moon & Han, 2019). While these destinations may foster a sense of isolation, they can also cause emotions less common in mainstream settings, such as excitement or melancholy (Bardolet & Sheldon, 2008). Tourism in remote regions has often been associated with “sun, sand, and sea”, yet many destinations are diversifying their offering (Weaver, 2017). In the case of the Azores, positioned as a nature and adventure destination (Ponte et al., 2018), mobile technologies can support communication, navigation, perceived safety, boredom relief, and the taking of photography (Scalabrini et al., 2023). Because remote regions are often not suitable for mass tourism due to resource and geographic limitations (Alipour et al., 2020), it becomes particularly relevant to understand how tourists value connectivity and safety services in these contexts.

At tourism destinations, tourists increasingly seek personalized experiences, and up-to-date digital information adapted to different devices about attractions, activities,

products, and services, while also sharing their experiences quickly via social media (Xiang et al., 2015). Tourists are also becoming more engaged with sustainability and related values (Elkhwesky et al., 2024). In the post-COVID-19 context, concerns about safety, hygiene, and security have become more salient in destination choice and on-site behavior (Tasnim et al., 2023). Key traits often associated with digital tourists include proactivity (producing as well as consuming information), multi-device use (with smartphones central to the travel experience), and a preference for personalization and peer-to-peer communication (Beltrán López, 2017).

Tourists' use of mobile technologies during travel is shaped by multiple factors (Wang et al., 2014). Evidence from augmented reality tourism applications suggests that these tools can enhance visitors' experiences, particularly in the post-pandemic period, although their potential is not yet fully leveraged by stakeholders (Anand et al., 2023). Along these lines, information quality, system quality, and service quality have been identified as key drivers of satisfaction and reuse intentions for technology-based tourism services. In addition, tourists have shown increased interest in contactless and delivery-related services after the COVID-19 pandemic (Myers & Scarinci, 2022). Prior research also proposes criteria and design considerations for effective tourism-related mobile applications (Stefanov et al., 2023).

Connectivity is a core element of tourism, both for visitors and firms (Segittur, 2015). As digital technologies diffuse across the travel value chain, smartphones have become increasingly influential in shaping travelers' behaviors and decision processes (Pencarelli, 2020). However, in remote destinations, connectivity constraints coexist with distinctive natural and cultural resources that may encourage more authentic or less-technology-intensive experiences. This raises empirical questions about how tourists perceive and value mobile connectivity and safety networks in remote contexts, particularly in the post-pandemic era. Evidence from domestic travelers in two Asian island destinations also indicates that smartphone use and smart technology preferences may vary across markets and desired experience types (authentic experiences versus memorable experiences through the use of smart tourism technologies) (Chung et al., 2024).

Several theoretical frameworks have been used to study the adoption and use of tourism technologies. The Technology Acceptance Model (TAM) is widely applied to explain technology acceptance through perceived usefulness and perceived ease of use (Alipour et al., 2020; S. Chen et al., 2021). Extensions and alternatives have been proposed, including the Unified Theory of Acceptance and Use of Technology (UTAUT), which incorporates factors such as social influence, hedonic motivation, price value, and habits (Kuo et al., 2019), and further extensions that integrate the UTAUT-related constructs into the TAM (Venkatesh et al., 2012). Other authors argue that Adaptive Structuration Theory (AST) may be particularly suitable for mobile contexts because it explicitly accounts for how individuals appropriate technologies in practice (Mang et al., 2016). In this respect, tourists learn, adapt, and reinvent their smartphone use in everyday settings and transfer these practices to travel contexts, which can reshape tourism experiences through spillover effects. Prior studies also suggest exploring additional models to capture the complexity of mobile tourism technologies (Wang et al., 2016). Methodologically, many studies in this research stream rely on surveys to capture tourists' technology-related perceptions and behaviors.

Understanding behavioral patterns in remote destinations in the post-pandemic context can help destination managers refine a destination's image, allocate resources more effectively, and improve tourism experiences (C.-F. Chen & Tsai, 2007). At the same time, the literature continues to highlight gaps in mobile tourism research, particularly regarding how mobile technologies shape consumer behavior and how this translates into implications for marketing and industry practices (Liang et al., 2017). The next section details

the materials and methods used to address these questions in the context of a remote island destination.

3. Materials and Methods

In this study, tourists visiting the Autonomous Region of the Azores were surveyed to analyze how tourists perceive the importance of mobile communications and security networks on the quality of the experience in regional tourism. This tourism destination was selected since there are plans for it to become a smart tourism destination, and some important technological tools are already deployed, which is relevant to analyzing tourists' perceived importance and satisfaction with them.

The survey method is widely used in the literature for similar purposes. A questionnaire was given to tourists who know about or use tourism mobile apps in Vietnam (Kuo et al., 2019). A questionnaire was given to tourists in Rome and Athens to assess smartphone utilization in these tourism destinations (Mang et al., 2016). The impact of mobile applications on changing Portuguese tourists' experiences was analyzed using questionnaires (Dias & Afonso, 2021).

The methodological approach is based on the TAM, similar to other studies (Kuo et al., 2019). The TAM continues to be widely used in the hospitality and tourism literature, despite its limitations (S. Chen et al., 2021). This study operationalizes the TAM only via the perceived usefulness component, since it aims to understand the importance, relevance, and impact of mobile technologies and security networks, rather than the full adoption process (Figure 1).

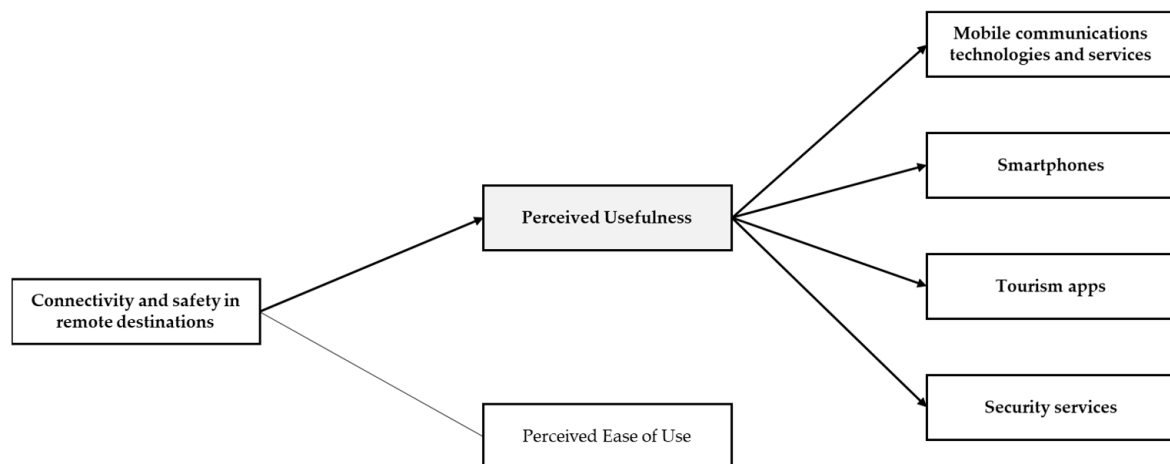


Figure 1. Conceptual framework applying perceived usefulness from the TAM to tourists' evaluation of mobile communication and security services in a remote destination.

To study the perceived usefulness of mobile communication services and technologies in the Azores in the post-pandemic era, as well as security networks, the survey was designed to collect data regarding:

1. Which mobile communications technologies and services are most used and are most important for tourists?
2. Intensity of usage of smartphones in different places within remote destinations.
3. Which tourism app features are more relevant?
4. What is the importance and relevance of security services for tourists?

Based on multiple studies in the literature, the construction of the survey resulted in 24 questions, of which 6 questions relate to the respondent's sociodemographic characteristics, 8 questions relate to the experience in the Azores, and 10 questions relate to the degree

of interest, importance, and relevance given to mobile communication and security services and technologies in tourism destinations (see Table 1). For most of the questions, 5-point Likert-type scales were used.

Table 1. Survey structure.

Group	Items
Sociodemographic characteristics	• Age • Professional situation • Gender • Academic degree • Civil status • Country of residence
Experience in the Azores	• Islands visited • Type of accommodation • Mobile communications services used • Communications technology used • Where services were used • Frequency of accessing smartphone • Applications most used • Comparison to other destinations
Degree of interest, importance, and relevance given to mobile communication and security services and technologies in tourism destinations	• Application features • Importance of availability of communication services by zone • Relevance of different types of communication services • Importance of security services

The surveys were implemented from August to October 2022, months belonging to the IATA 2022 summer season (May to October), in four of the nine islands of the Azores: São Miguel, Terceira, Pico, and Faial. Surveys were implemented in the airports, in person, using either tablets or pen and paper. Only departing tourists responded to the survey at the end of their tourism experience in the Azores.

Considering a universe of 627,160 guests in the Autonomous Region of the Azores (2021 figure), a total of 738 surveys were collected to provide a sample with a confidence level of 95% and a margin of error of 4%. Samples with confidence levels of 95% or 99% and margins of error of less than 5% are suitable for studies in the social science field (Taherdoost, 2017).

The data were analyzed using descriptive statistics measures (mean, mode, frequency), which is a method widely used in similar studies (Liang et al., 2017). Being an empirical study, descriptive statistics were used to provide a clear and transparent overview of the data, which is an appropriate analytical tool for case studies. The results are presented next.

Internal consistency was assessed with Cronbach's alpha. The app feature interest scale (4 items) showed $\alpha = 0.825$, the importance of communication availability by zone scale (15 items) $\alpha = 0.888$, the communication services importance scale (7 items) $\alpha = 0.785$, and the security services importance scale (2 items) $\alpha = 0.887$, indicating good reliability.

4. Results

In terms of sociodemographic characteristics, Table 2 presents the distribution of individuals by age, professional status, gender, academic degree, civil status, and country of residence. The table provides the number and percentage of participants.

Table 2. Respondents' profile.

Variables	Description	Frequency
Age	Less than 17	40 (5.4%)
	18–24	123 (16.7%)
	25–34	229 (31.0%)
	35–44	147 (19.9%)
	45–54	118 (16.0%)
	55–64	62 (8.4%)
	More than 65	19 (2.6%)
Professional situation	Liberal professional	225 (30.5%)
	President	11 (1.5%)
	Manager	166 (22.5%)
	CEO	79 (10.7%)
	Retired	34 (4.6%)
	Student/internship	152 (20.6%)
	Unemployed	25 (3.4%)
Gender	Male	291 (39.4%)
	Female	445 (60.3%)
Academic degree	Elementary school	26 (3.5%)
	Technical/professional training	68 (9.2%)
	High school	141 (19.1%)
	Undergraduate	141 (19.1%)
	University education (Masters/PhD)	358 (48.5%)
Civil status	Single	364 (49.3%)
	Divorced	41 (5.6%)
	Married	256 (34.7%)
	Civil union	72 (9.8%)
	Widow	5 (0.7%)
Country of residence	Portugal	340 (46.1%)
	Foreign	398 (53.9%)

Regarding their stay in the Azores, 88.5% visited São Miguel island (the biggest and most developed one). Other islands were also visited but with less frequency, such as Terceira (35.1%), Pico (30.6%), and Faial (30.1%). It is important to note that these are the islands where the surveys were carried out, although tourists may have visited more than one island. Domestic tourists visited a larger number of islands than foreign tourists.

Local accommodation is the preferred type of accommodation (37.9% of the total sample). Nonetheless, foreign tourists also look for hotels. The same proportion of foreign tourists stayed in local accommodation and hotels (37.7%), while 38.3% of domestic tourists stayed in local accommodation and 27.4% stayed in hotels.

4.1. Usage of Mobile Communication Services and Technologies

Regarding mobile communication services, the most used was Internet access (86.2%), followed by text messaging over the Internet (72.2%). Internet of Things (IoT) was almost not used by tourists, which may indicate that the Azores is not very prepared or are not attractive enough yet for smart tools.

Domestic tourists used the other services more. A total of 72.3% of domestic tourists use SMS, while the proportion of foreign tourists is only 27.1%. There are also substantial differences in voice and video calls, with more use by domestic tourists. These differences may be due to lower communication costs for domestic tourists.

In terms of age structure, the 35–44 age group was the one to access the Internet the most (90.5%). A total of 71.4% also used text messaging over the Internet. The 18–24-year-

old age group was the one that used text messaging over the Internet the most (81.3%), with 87.0% accessing the Internet. This is also the group that used more video calls (46.3%), voice messages (43.9%), and voice calls (35.0%). SMS was most used by tourists less than 17 years old (65.0%), with 72.5% also accessing the Internet, and 67.5% sending text messages over the Internet. The 45–54, 55–64, and over-65 age groups used Internet access more (85.6%, 88.7%, and 73.7%, respectively), followed by text messages over the Internet (62.7%, 72.6%, and 52.6%).

Regarding mobile communication technologies, 4G (67.4%) and Wi-Fi (66.5%) were the most used in the Azores. It may be because 5G is not yet a widespread technology in the Azores, especially in more remote locations.

Concerning the relevance of the availability of mobile communication services (Table 3), Wi-Fi (mode and median of 5) and the Internet for browsing (mode of 5 and median of 4) emerge as highly relevant (scale: 1—not relevant at all and 5—very relevant). For Wi-Fi, a median of 4 was found for male tourists and in the 35–44 and over-65 age groups. Regarding the Internet for browsing, a median of 5 was only found in the 45–54 age group. Internet access for making videos for social networks is the least relevant service (mode of 2 and median of 3). The 25–34 age group presents a median of 2, and the 18–24 age group presents a median of 2.5. The remaining services are relevant to the respondents (mode and median of 4). A median of 3 and 3.5 was found in the 25–34 and over-65 age groups, respectively, and also a median of 3 for male tourists, regarding the use of the Internet for video calls. A median of 3.5 was found in the over-65 age group regarding the use of the Internet for sending photos.

Table 3. Relevance of the availability of mobile communication services, by type of service.

Mobile Communication Services	Median	Mode
Voice call	4.00	4
Internet for messaging	4.00	4
Internet for video calls	4.00	4
Internet for browsing	4.00	5
Internet for making videos for social media	3.00	2
Internet for sending photos	4.00	4
Wi-Fi	5.00	5

Overall, 71.2% of those surveyed rated the availability of mobile communication services in the tourist destination as important or very important (rating of 4 and 5, on a scale of 1—not important and 5—extremely important). This importance seems to be more evident among females, domestic tourists, and tourists over 55.

Regarding the mobile applications (apps) used in the Azores, WhatsApp is the most used (71.8%), followed by Instagram (56.7%).

Female respondents used WhatsApp, Facebook, Instagram, and route-tracking apps more. Male respondents used YouTube more. Considering the origin of the respondents, it is clear that route-tracking apps were used far more by foreign tourists (63.0%) than by domestic tourists (23.4%). Facebook, YouTube, and Instagram were used more by domestic tourists than by foreign tourists.

Stratifying the sample by age group, it is evident that route-tracking apps were most used by tourists between 25 and 54 years old (almost half of the sample in the corresponding groups). Instagram was most used by 18–24-year-old tourists (86.1%), followed by the 25–34 and less-than-17-year-old age groups (68.9% and 67.5%, respectively). The percentages decrease in the older groups, with only 5.3% in the over-65 age group using Instagram. YouTube was used more by less-than-17-year-old tourists (47.5%), followed by the 18–24 age group (37.7%). Only 5.3% of the over-65 age group used YouTube. Interestingly, Facebook

was most used in the 35+ age group. A total of 67.2% in the 55–64 age group used Facebook, followed by the 45–54 age group (50.8%) and the over-65 age group (42.1%). Only 15.0% in the less-than-17 age group used Facebook. WhatsApp was used by more than 60% across all age groups, with the 35–44 age group leading the percentages (76.2%).

Compared to other tourist destinations, 55.5% of respondents consider that mobile communication services in the Azores are of a similar quality (Table 4). We found 29.1% consider the services to be better or much better, while 15.3% consider them to be worse or much worse.

Table 4. Quality of mobile communication services in the Azores, compared to other similar tourist destinations, by origin.

Quality of Mobile Communication	Portugal	Foreign	Total
Very poor quality	2.1%	0.5%	1.2%
Poor quality	22.1%	7.3%	14.1%
Similar quality	55.5%	55.5%	55.5%
Better quality	16.5%	26.4%	21.8%
Very high quality	3.8%	10.3%	7.3%

Male tourists appear to be more satisfied than female tourists: 12.4% of male tourists consider the services to be worse or much worse, while this percentage rises to 17.3% among female tourists.

Foreign tourists also appear to be more satisfied than domestic tourists: 7.8% of foreign tourists consider the services to be worse or much worse, while this percentage rises to 24.2% among domestic tourists. It should be noted that 26.7% of foreign tourists consider the services to be better or much better (20.3% of female foreign tourists).

In terms of age structure, the groups that consider the Azores to be of worse or much worse quality than its competitors when it comes to mobile communication services are 45–54-year-olds (21.1%) and 18–24-year-olds (18.7%). The 25–34 age group rated the quality higher or much higher (35.1%).

4.2. Intensity of Smartphone Use

The intensity of smartphone use in the Azores is clearly evident (Table 5). Almost half of the sample (47.5%) accessed their smartphone more than once an hour. Only 3.4% accessed their smartphone once a day. There were no substantial differences when stratifying the sample by gender or country of origin. However, the stratification of the sample by age structure is quite revealing. In the group up to the age of 24, around 64% accessed their smartphone more than once an hour. This rate of access tends to decrease with increasing age. In the over-65 group, 57.9% accessed their smartphone three to five times a day.

Table 5. Access to smartphones during the stay in the Azores, by age group.

Access to a Smartphone	<17	18–24	25–34	35–44	45–54	55–64	+65
More than once per hour	64.1%	64.2%	50.0%	42.9%	34.2%	38.7%	21.1%
Once every hour	10.3%	15.4%	25.0%	25.9%	19.7%	16.1%	15.8%
Three to five times per day	23.1%	14.6%	23.2%	29.9%	39.3%	41.9%	57.9%
Once per day	2.6%	5.7%	1.8%	1.4%	6.8%	3.2%	5.3%

Respondents rated the availability of mobile communication services as important, whether in isolated rural areas, urban areas, or maritime areas (Table 6). On a scale of 1 to 5,

where 1 represents very low importance and 5 represents very high importance, the mode and median were 4. A median of 3 was only found in the less-than-17 age group regarding the maritime zone.

Table 6. Importance of the availability of mobile communication services, by zone.

Zone	Median	Mode
Isolated rural areas	4.00	4
Urban areas	4.00	4
Maritime zone	4.00	4

Concerning the likelihood of using mobile communication services in tourism destinations (see Table 7), respondents consider Internet use to be very likely in urban areas (mode of 5 and median of 4 on a scale of 1—very low to 5—very high). The use of live video is unlikely in isolated rural areas and maritime zones (mode of 1 and median of 2), with respondents being more likely to use live video in urban areas (median and mode of 3). There is also a likelihood of using messaging services, regardless of where they use them; voice call services in urban areas; and Internet services in rural and maritime areas (mode 4).

Table 7. Likelihood of using mobile communication services, by type of service and zone.

Mobile Communication Services/Zone	Isolated Rural Areas		Urban Areas		Maritime Zone	
	Median	Mode	Median	Mode	Median	Mode
Voice services	3.00	3	4.00	4	3.00	3
Internet services	4.00	4	4.00	5	3.00	4
Live video	2.00	1	3.00	3	2.00	1
Messaging services	4.00	4	4.00	4	3.00	4

4.3. Tourism App Features

Respondents show a high level of interest in apps that feature restaurants in the area, tourist attractions, and activities in the area, and that allow them to book tickets for visits/activities (Table 8). On a scale of 1 to 5, where 1 represents very low interest and 5 represents very high interest, the mode and median for all the characteristics presented in the question showed a value of 4 (high interest). A median of 3 was only found in the over-65 age group regarding tourist attractions by zone and activities by zone features.

Table 8. Interest in mobile application features.

Features	Median	Mode
Restaurants by area	4.00	4
Tourist attraction by zone	4.00	4
Activities by zone	4.00	4
Ticket reservation	4.00	4

4.4. Importance and Relevance of Security Services

Concerning the availability of security services, respondents attach high importance to the availability of the network for making emergency calls and knowing that the emergency and security authorities have their own highly available emergency network at their disposal (mode and median of 5 on a scale of 1—not important and 5—extremely important). No medians other than 5 were found across age groups, gender, and origin (Table 9).

Table 9. Importance of the availability of security services.

Security Services	Median	Mode
Emergency calls service	5.00	5
Knowing that an emergency network is available and at their disposal	5.00	5

Just over half of those surveyed (53.8%) would consider not carrying out tourist activities if they learned that the emergency network was unavailable. This proportion is higher among females, domestic tourists, and tourists aged between 18 and 34 and over 55.

5. Discussion

The results of the survey present a set of interesting insights regarding the importance of mobile communication and security networks for tourists in remote destinations, such as the Azores, in the post-pandemic era. These results are relevant for destination planning and management by stakeholders in remote locations aiming for a better-quality experience for tourists who are smarter and more connected, but also more concerned and aware about security, health, and sustainability, and may look for alternative and less-technology-intensive experiences. Better-quality experiences are crucial to enhance perceived value and repurchase intentions and to gain loyalty, allowing long-term viability and sustainability (Baker & Fulford, 2016; C.-F. Chen & Chen, 2010; Shoemaker & Lewis, 1999).

It was possible to gather information related to demographics and travel-related information, the usage of communication services, and technologies in the Azores. Notably, the Azores is an emergent sustainable destination that prioritizes nature and adventure tourism as its main tourism products. Due to the partial liberalization of airspace, resulting in the entry of low-cost carriers, great growth in tourism demand has been realized, which is also resulting in developments in tourism supply in terms of accommodation, activities, and related services. Plans were drawn up for the Azores to become a smart tourism destination (Couto et al., 2022) due to its unique endogenous resources, spatial configurations, and commitment to sustainability.

In the Azores, tourists have a high intensity of use of mobile communications and technologies, especially among younger tourists, in line with recent trends. Internet access and text messages via the Internet are the main services used by tourists in this region. WhatsApp is the most used app, but Instagram is used more among younger tourists. Facebook is used more by older tourists. Most tourists access the Internet via 4G or Wi-Fi. Compared to other similar tourist destinations, the majority of tourists perceive the Azores as having the same or better quality of services. In the main urban areas of the Azores, city halls are developing free Wi-Fi spaces, often supported by European cofunding programs, to promote more digital accessibility.

This is relevant information for Azorean policy-makers and stakeholders. As the first sustainable tourism-certified archipelago and intending to be a smart tourism destination, the Azores can rely on mobile communication services and technologies suitable not only to enhance tourism experiences, but also to gather and analyze data and help decision-makers and stakeholders improve sustainability. Smart technologies are highly relevant to enhance intelligence, governance, sustainability, accessibility, and innovation—attributes of smart tourism destinations. They can create an environment where everything is interconnected, co-created, and value-oriented (Boes et al., 2015). Moreover, smart tourism destinations can help develop more sustainable cities (Aguirre et al., 2022).

For tourists, smart technologies, such as smartphones, can impact tourist experiences by affecting tourists' activities and sensations (Wang et al., 2016). They become more connected and informed, they travel more, and there is more en route planning and en route sharing. New technologies are enhancing immersion, virtual experiences, and intercon-

nection between things and objects. For companies and stakeholders, smart technologies can improve marketing, competitiveness, sustainability, and efficiency, promoting quality, innovation, differentiation, and value-for-money tourism experiences. Note, for example, the potential of big data to know the consumers and create personalized experiences and marketing campaigns. For that, destinations must improve technological infrastructures to allow better connectivity. In the case of the Azores, it is crucial to extend 5G coverage to remote areas, which could create better conditions for immersive experiences using Virtual Reality or augmented reality.

The survey made it possible to collect information regarding the importance, interest, and relevance of mobile communications and security services for tourism experiences across destinations.

Tourists seek apps that have relevant information about tourism activities, attractions, and restaurants in their destinations, which is in line with [Xiang et al. \(2015\)](#). In this field, it is important to recall [Kuo et al. \(2019\)](#)'s work. The perceived usefulness and perceived ease of use of tourism mobile apps are among the most important factors in the tourists' attitude towards tourism apps, sustaining the TAM. Another work revealed three key attributes of smart tourism technologies: informativeness, interactivity, and personalization ([Jeong & Shin, 2020](#)).

Tourists also consider it important that destinations make available mobile communication services, whether in urban areas, isolated rural areas, or maritime areas, although they are more likely to use them in urban areas. It seems that mobile communication services are even more important for younger and older tourists than for adults. Among the different mobile communication services, Wi-Fi is the most important one, especially in urban areas.

The intensity of usage of smartphones and apps such as WhatsApp and Facebook, and the need for the availability of Wi-Fi, seems to follow the [Wang et al. \(2016\)](#) argument that tourists look to use and adapt daily technologies when they travel. Beyond the importance of tourist satisfaction and perceived value, the availability of mobile communication services and technology may also be relevant for co-creation, as supported by [Schmidt-Rauch and Schwabe \(2014\)](#). Nonetheless, destinations should avoid issues such as information overload and provide meaningful experiences for tourists who desire an escape from technology ([Gretzel, 2010](#)).

Regarding security services, the importance of the availability of these services is evident. More than half of those surveyed would consider not carrying out tourist activities if they learned that the emergency network was unavailable. This is even more evident among Portuguese tourists. This shows that tourist destinations need to continue investing in mobile and data coverage expansion, enabling broad coverage in isolated areas and ensuring fast and easy access to emergency services. It is also important to invest in mobile apps that integrate real-time information on risks, emergency contacts, geolocated alerts, and basic safety guidance. They may also work offline or with intermittent connectivity. In the Azores, the emergency phone line (112) is the most promoted emergency service for tourists by regional entities. A Regional Civil Protection and Fire Service of the Azores mobile app also exists for disseminating self-protection measures.

6. Conclusions and Suggestions

This paper presents a range of findings regarding the survey given to tourists in the Autonomous Region of the Azores to analyze the impact on the quality of tourism experience in accessing mobile communication and security networks in remote locations in the post-pandemic era, giving new insights about the behavior and preferences of tourists in these destinations when compared to other destinations already studied in the literature.

The results of this study have scientific contributions, contributing to filling an empirical gap in the literature related to mobile tourism in remote destinations. Despite the various studies regarding mobile tourism and smart tourism destinations, few studies analyzed how tourists intend to use them in remote regions, as well as the importance of security services. The results seem to show that, even in a sustainable and authentic remote place, such as the Azores, tourists express a willingness to use smart tools and apps, which is in line with [Chung et al. \(2024\)](#), and give great importance to security networks. Similarly to other destinations, connectivity and safety seem to be key factors in developing remote tourism destinations. The results also seem to point to the fact that tourists, especially younger ones, may look for more technological and memorable experiences than authentic and less-technological experiences due to the intense usage of smartphones, but this should be further investigated in future research.

The results also have managerial implications. Mobile communications services and technologies are crucial to enhance smart tourism, promote co-creation, and develop smart tourism destinations since they allow the gathering of big data to create intelligence and open multiple digital channels, which promote better governance, sustainability, accessibility, and innovation. Companies and policy-makers need to consider how to communicate and provide meaningful experiences to smarter tourists, not only during their stay but also before and after. They must also provide quality security services to promote safety and rapid responses to emergencies. Nonetheless, in remote and unique destinations such as the Azores, where nature and adventure tourism are the core product, one of the challenges for policy-makers and stakeholders will be how to introduce technologies to create meaningful and authentic experiences in locations where there is almost no human intervention and environmental sustainability is a policy goal. Even in isolated places, it is important to guarantee connectivity and rapid access to emergency services while maintaining the unique natural resources. There are segments of tourists that seek technology-free experiences in destinations such as the Azores (digital detox), where they look for traditional, cultural, and well-being experiences, different from everyday routines. This connectivity will also improve the sustainability management of fragile places and resources in these destinations.

Specifically for decision-makers in the Autonomous Region of the Azores, this paper is relevant since it shows that, according to the surveyed tourists, the Azores already have good-quality mobile technology services, compared to other tourism destinations. Nonetheless, according to [Couto et al. \(2022\)](#)'s diagnosis of the Azores' smart technologies, there is low connectivity to the Internet in more remote locations, although the importance of these locations for tourism activities and meaningful experiences due to their natural beauty. They also showed that there is a low penetration of technologies in tourism products and services, and few communication and information infrastructures. Since our results show that tourists also want mobile technology services to be available in rural and maritime areas, and not only in urban areas, it may be relevant to decision-makers to improve these services in remote areas to enhance tourists' satisfaction and tourism experiences. It would be interesting to develop core tourism products for each island, as already predicted in regional strategic plans, with different smart technologies, providing different experiences ranging from authentic experiences on small and rural islands and technology-free experiences to memorable and intensively technological experiences in urban areas.

Since this study uses descriptive statistics, one of the limitations is that it is not possible to generalize the results. Another limitation is that it was not possible to identify which tourists seek technology-free experiences (which could help develop sustainable tourism faster) and which specific technologies they look for in these locations. Moreover, being a

nine-island archipelago, there are different tourist profiles for each island, since each island has different tourism products, which can influence the usage of mobile communications services and technologies. The survey was only applied to four of the nine islands and only during the summer period. For future research, the database gathered from the survey's implementation on tourists in the Azores can be used for statistical inference methods, seeking to infer behaviors and characteristics of the target population. Furthermore, more data about how and which technologies impact tourists' satisfaction and intentions to revisit remote destinations could also be relevant for future work, using more advanced models than the TAM, as suggested by S. Chen et al. (2021). It may also be relevant to study behaviors between low and high seasons and islands of different sizes and socioeconomic development. Future research may also study the dependence of access on specific mobile operators, the quality of accessibility, and their costs.

Author Contributions: Conceptualization, C.S., N.C. and A.R.B.; methodology, C.S., N.C. and A.R.B.; software, A.O.; validation, G.C., P.P., C.S., N.C. and A.R.B.; formal analysis, A.O.; investigation, A.O. and C.S.; resources, G.C. and P.P.; data curation, A.O.; writing—original draft preparation, A.O.; writing—review and editing, C.S., G.C., P.P., N.C. and A.R.B.; visualization, A.O.; supervision, G.C., C.S., P.P., N.C. and A.R.B.; project administration, C.S., N.C. and A.R.B.; funding acquisition, N.C. and A.R.B. All authors have read and agreed to the published version of the manuscript.

Funding: This paper was developed under the Toursignal project, with the code ACORES-01-0247-FEDER-000028, which is financed by PO Açores 2020. This work was also supported by FCT, I.P., the Portuguese national funding agency for science, research, and technology, under the Projects UIDB/00685/2020 & UID00685 CEEAplA | School of Business and Economics | University of the Azores.

Institutional Review Board Statement: Ethical review and approval were waived for this study due to the Ethics Committee Regulation of the University of the Azores.

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

Data Availability Statement: The original contributions presented in this study are included in the article. Further inquiries can be directed to the corresponding author.

Conflicts of Interest: Authors Nuno Cota and Ana Rita Beire were employed by the company SOLVIT—Innovation on Telecommunications, Lda. Author André Oliveira was employed by the company Fundo de Maneio, Lda. The remaining authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

References

- Aguirre, A., Zayas, A., Gómez-Carmona, D., & López Sánchez, J. A. (2022). Smart tourism destinations really make sustainable cities: Benidorm as a case study. *International Journal of Tourism Cities*, 9(1), 51–69. [CrossRef]
- Alipour, H., Olya, H. G. T., Maleki, P., & Dalir, S. (2020). Behavioral responses of 3S tourism visitors: Evidence from a Mediterranean Island destination. *Tourism Management Perspectives*, 33, 100624. [CrossRef]
- Anand, K., Arya, V., Suresh, S., & Sharma, A. (2023). Quality dimensions of augmented reality-based mobile apps for smart-tourism and its impact on customer satisfaction & reuse intention. *Tourism Planning & Development*, 20(2), 236–259. [CrossRef]
- Baker, D. M. A., & Fulford, M. (2016). Cruise Passengers' perceived value and willingness to recommend. *Tourism & Management Studies*, 12(1), 74–85. [CrossRef]
- Bardolet, E., & Sheldon, P. J. (2008). Tourism in archipelagos: Hawai'i and the Balearics. *Annals of Tourism Research*, 35(4), 900–923. [CrossRef]
- Beltrán López, G. (2017). *Los municipios turísticos del interior de la Comunitat Valenciana en internet*. Universitat de València. Available online: <https://dialnet.unirioja.es/servlet/tesis?codigo=171159> (accessed on 10 July 2024).
- Boes, K., Buhalis, D., & Inversini, A. (2015). Conceptualising smart tourism destination dimensions. In I. Tussyadiah, & A. Inversini (Eds.), *Information and communication technologies in tourism 2015* (pp. 391–403). Springer International Publishing. [CrossRef]

- Bulchand-Gidumal, J. (2022). Post-COVID-19 recovery of island tourism using a smart tourism destination framework. *Journal of Destination Marketing & Management*, 23, 100689. [\[CrossRef\]](#)
- Carvalho, S., & Carvalho, J. V. (2020). The Implications of digital marketing and e-commerce in the tourism sector growth. In Á. Rocha, A. Abreu, J. V. de Carvalho, D. Liberato, E. A. González, & P. Liberato (Eds.), *Advances in tourism, technology and smart systems* (pp. 161–170). Springer. [\[CrossRef\]](#)
- Chen, C.-F., & Chen, F.-S. (2010). Experience quality, perceived value, satisfaction and behavioral intentions for heritage tourists. *Tourism Management*, 31(1), 29–35. [\[CrossRef\]](#)
- Chen, C.-F., & Tsai, D. (2007). How destination image and evaluative factors affect behavioral intentions? *Tourism Management*, 28(4), 1115–1122. [\[CrossRef\]](#)
- Chen, S., Law, R., Zhang, M., & Si, Y. (2021). Mobile communications for tourism and hospitality: A review of historical evolution, present status, and future trends. *Electronics*, 10(15), 1804. [\[CrossRef\]](#)
- Chung, C., Li, J., Chung, N., & Shin, S. (2024). The impact of smartphone usage on domestic travelers' existential authenticity and behavioral perception toward island destinations: A cross-country comparison of Hainan Island and Jeju Island. *Journal of Destination Marketing & Management*, 31, 100846. [\[CrossRef\]](#)
- Corte, V., D'Andrea, C., Savastano, I., & Zamparelli, P. (2017). Smart cities and destination management: Impacts and opportunities for tourism competitiveness. *European Journal of Tourism Research*, 17, 7–27. [\[CrossRef\]](#)
- Couto, G., Pimentel, P., Oliveira, A., Ponte, J. C., Santos, C., Estima, D., & Castanho, R. (2022). SmartDest: Converting the Azores into a smart tourist destination. In *Handbook of research on sustainable development goals, climate change, and digitalization* (pp. 409–432). IGI Global Scientific Publishing. [\[CrossRef\]](#)
- Dias, S., & Afonso, V. A. (2021). Impact of mobile applications in changing the tourist experience. *European Journal of Tourism, Hospitality and Recreation*, 11(1), 113–120. [\[CrossRef\]](#)
- Doricic, J., Komsic, J., & Markovic, S. (2019). Mobile technologies and applications towards smart tourism—State of the art. *Tourism Review*, 74(1), 82–103. [\[CrossRef\]](#)
- Elkhwesky, Z., El Manzani, Y., & Elbayoumi Salem, I. (2024). Driving hospitality and tourism to foster sustainable innovation: A systematic review of COVID-19-related studies and practical implications in the digital era. *Tourism and Hospitality Research*, 24(1), 115–133. [\[CrossRef\]](#) [\[PubMed\]](#)
- Farías, A., & Cancino, C. A. (2021). Digital transformation in the Chilean lodging sector: Opportunities for sustainable businesses. *Sustainability*, 13(14), 8097. [\[CrossRef\]](#)
- Fontanari, M., & Traskevich, A. (2023). Smart-solutions for handling overtourism and developing destination resilience for the post-COVID-19 era. *Tourism Planning & Development*, 20(1), 86–107. [\[CrossRef\]](#)
- Gretzel, U. (2010). Travel in the network: Redirected gazes, ubiquitous connections and new frontiers. In *Post-global network and everyday life*. Peter Lang.
- Gretzel, U., Fuchs, M., Baggio, R., Hoepken, W., Law, R., Neidhardt, J., Pesonen, J., Zanker, M., & Xiang, Z. (2020). e-Tourism beyond COVID-19: A call for transformative research. *Information Technology & Tourism*, 22(2), 187–203. [\[CrossRef\]](#)
- Huang, C. D., Goo, J., Nam, K., & Yoo, C. W. (2017). Smart tourism technologies in travel planning: The role of exploration and exploitation. *Information & Management*, 54(6), 757–770. [\[CrossRef\]](#)
- Iskender, A., Sirakaya-Turk, E., Cardenas, D., & Harrill, R. (2024). COVID or VOID: A systematic literature review of technology adoption and acceptance in hospitality and tourism since the breakout of COVID-19. *Tourism and Hospitality Research*, 24(1), 95–114. [\[CrossRef\]](#)
- Jeong, M., & Shin, H. H. (2020). Tourists' experiences with smart tourism technology at smart destinations and their behavior intentions. *Journal of Travel Research*, 59(8), 1464–1477. [\[CrossRef\]](#)
- Jorge, F., Sousa, N., Losada, N., Teixeira, M. S., Alén, E., Melo, M., & Bessa, M. (2023). Can virtual reality be used to create memorable tourist experiences to influence the future intentions of wine tourists? *Revista Turismo & Desenvolvimento*, 43, 67–76. [\[CrossRef\]](#)
- Jovicic, D. Z. (2019). From the traditional understanding of tourism destination to the smart tourism destination. *Current Issues in Tourism*, 22(3), 276–282. [\[CrossRef\]](#)
- Kuo, T.-S., Huang, K.-C., Nguyen, T. Q., & Nguyen, P. H. (2019). Adoption of mobile applications for identifying tourism destinations by travellers: An integrative approach. *Journal of Business Economics and Management*, 20(5), 860–877. [\[CrossRef\]](#)
- Liang, S., Schuckert, M., Law, R., & Masiero, L. (2017). The relevance of mobile tourism and information technology: An analysis of recent trends and future research directions. *Journal of Travel & Tourism Marketing*, 34(6), 732–748. [\[CrossRef\]](#)
- Mang, C. F., Piper, L. A., & Brown, N. R. (2016). The incidence of smartphone usage among tourists. *International Journal of Tourism Research*, 18(6), 591–601. [\[CrossRef\]](#)
- McCabe, S., Sharples, M., & Foster, C. (2012). Stakeholder engagement in the design of scenarios of technology-enhanced tourism services. *Tourism Management Perspectives*, 4, 36–44. [\[CrossRef\]](#)
- Moon, H., & Han, H. (2019). Tourist experience quality and loyalty to an island destination: The moderating impact of destination image. *Journal of Travel & Tourism Marketing*, 36(1), 43–59. [\[CrossRef\]](#)

- Myers, G., & Scarinci, J. (2022). Consumers' use of smartphone technology for travel and tourism in a COVID era: A scoping review. *Journal of Resilient Economies*, 2, 169–180. [CrossRef]
- Pencarelli, T. (2020). The digital revolution in the travel and tourism industry. *Information Technology & Tourism*, 22(3), 455–476. [CrossRef]
- Ponte, J., Couto, G., Pimentel, P., & Oliveira, A. (2018). Tourism activities and companies in a sustainable adventure tourism destination: The Azores. *Tourism & Management Studies*, 14(4), 25–38. [CrossRef]
- Ponte, J., Couto, G., Pimentel, P., Sousa, Á., & Oliveira, A. (2019). Tourist satisfaction with the municipality of Ponta Delgada (Azores). *Revista de Gestão e Secretariado*, 10(3), 192–217. [CrossRef]
- Sanfiel-Fumero, M. Á., Armas-Cruz, Y., & González-Morales, O. (2017). Sustainability of the tourist supply chain and governance in an insular biosphere reserve destination: The perspective of tourist accommodation. *European Planning Studies*, 25(7), 1256–1274. [CrossRef]
- Scalabrini, E., Correia, A. I., Nunes, A., Veloso, C. M., Vieira, E., Ferreira, F. A., Silva, G., Fonseca, M., Carrança, P., Santos, S., & Fernandes, P. O. (2023). The use of mobile technology in outdoor tourism: A systematic review. In A. Mesquita, A. Abreu, J. V. Carvalho, & C. H. P. de Mello (Eds.), *Perspectives and trends in education and technology* (pp. 667–675). Springer Nature. [CrossRef]
- Schmidt-Rauch, S., & Schwabe, G. (2014). Designing for mobile value co-creation—The case of travel counselling. *Electronic Markets*, 24(1), 5–17. [CrossRef]
- Segittur. (2015). *Smart destination report: Building the future*. Available online: <https://www.segittur.es/smart-tourism-destinations/dti-projects/libro-blanco-destinos-turisticos-inteligentes/> (accessed on 10 July 2024).
- Shoemaker, S., & Lewis, R. C. (1999). Customer loyalty: The future of hospitality marketing. *International Journal of Hospitality Management*, 18(4), 345–370. [CrossRef]
- Sousa, N., Jorge, F., Teixeira, M. S., Losada, N., Melo, M., & Bessa, M. (2023). An exploratory study about the effect of COVID-19 on the intention to adopt virtual reality in the tourism sector. *Sustainability*, 15(11), 8725. [CrossRef]
- Stefanov, T., Varbanova, S., Stefanova, M., & Tsenkova, Y. (2023). Mobile applications for cultural tourism—Past, present, and future. criteria for a successful mobile app. *International Journal of Interactive Mobile Technologies (ijIM)*, 17(24), 54–78. [CrossRef]
- Taherdoost, H. (2017). Determining sample size; How to calculate survey sample size. *International Journal of Economics and Management Systems*, 2, 237–239. Available online: <https://www.iasar.org/home/caijems/determining-sample-size-how-to-calculate-survey-sample-size> (accessed on 10 July 2024).
- Tasnim, Z., Shareef, M. A., Dwivedi, Y. K., Kumar, U., Kumar, V., Malik, F. T., & Raman, R. (2023). Tourism sustainability during COVID-19: Developing value chain resilience. *Operations Management Research*, 16(1), 391–407. [CrossRef]
- Tavitiyaman, P., Qu, H., Tsang, W. L., & Lam, C. R. (2021). The influence of smart tourism applications on perceived destination image and behavioral intention: The moderating role of information search behavior. *Journal of Hospitality and Tourism Management*, 46, 476–487. [CrossRef]
- Um, T., & Chung, N. (2021). Does smart tourism technology matter? Lessons from three smart tourism cities in South Korea. *Asia Pacific Journal of Tourism Research*, 26(4), 396–414. [CrossRef]
- Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly*, 36(1), 157. [CrossRef]
- Wang, D., Xiang, Z., & Fesenmaier, D. R. (2014). Adapting to the mobile world: A model of smartphone use. *Annals of Tourism Research*, 48, 11–26. [CrossRef]
- Wang, D., Xiang, Z., & Fesenmaier, D. R. (2016). Smartphone use in everyday life and travel. *Journal of Travel Research*, 55(1), 52–63. [CrossRef]
- Weaver, D. B. (2017). Core–periphery relationships and the sustainability paradox of small island tourism. *Tourism Recreation Research*, 42(1), 11–21. [CrossRef]
- Xiang, Z., Tussyadiah, I., & Buhalis, D. (2015). Smart destinations: Foundations, analytics, and applications. *Journal of Destination Marketing & Management*, 4(3), 143–144. [CrossRef]
- Ye, B. H., Ye, H., & Law, R. (2020). Systematic review of smart tourism research. *Sustainability*, 12(8), 3401. [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.