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AIMS & SCOPE

The **Journal of Tourism, Sustainability and Well-being (JTSW)** is an international open-access academic journal in the tourism field that publishes high-quality, refereed articles that advance science widely available so that tourism can serve the society, enhance a sustainable development of the destinations, and positively impact the well-being of stakeholders.

JTSW offers itself a multidisciplinary and all-inclusive bridge between theoretical and practical aspects of tourism and the emerging interdisciplinary aspects that can revolutionise the tourism and hospitality industries. While the JTSW maintains its traditional focus on original research, both conceptual and empirical, that clearly contributes to the theoretical development of the tourism field, it also has a far more inclusive and broadened scope to keep up with the new problems that challenge academics and practitioners working in private, public and non-profit organisations globally. JTSW encourages research based on a variety of methods, qualitative and/or quantitative, based on rigorous theoretical reasoning and supported by a strong methodology. Criteria for evaluation include significance in contributing new knowledge, conceptual quality, appropriate methodology, technical competence (of theoretical argument and/or data analysis), and clarity of exposition.

JTSW promotes research on a broad range of topics that explore major trends in the study of relationships between tourism, sustainable development of destinations and well-being of tourism-related stakeholders. Contributions can be from all disciplinary perspectives, with interdisciplinary approaches especially welcomed as far as they apply to the tourism research field. All policy, planning and management aspects of tourism are also encouraged.

The journal is published as a quarterly international review in open access, mainly composed of thematic special issues. The publishing schedule is the last working day of March, June, September and December. Any interested scholar can submit a proposal for the guest-edition of a special issue to the Editor-in-Chief. The proposal should follow the guidelines provided in the Guide for Guest Editors. Each article must follow the publication rules as in the Author Guidelines. The Guest-Editors and the Editor-in-Chief are responsible for the implementation of a double-blind review process. This method ensures that the author(s) and the reviewers remain anonymous to guarantee a fair and impartial review of the submitted manuscripts.

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EDITORIAL

The Journal of Tourism, Sustainability and Well-Being terminates 2022 with an issue composed of five articles, mainly addressing the impacts of the Covid-19 pandemic. The first article is theoretical and proposes a model of shared responsibilities involving the different stakeholders in a cultural destination to overcome a crisis, such as the global Covid-19 pandemic. The second article focus on the hospitality industry and how the tourism and hotel industry can contribute to eco-friendly financial reporting practices. The study includes companies before and during the Covid-19 pandemic. The third article focuses on the effects of tourism on residents' well-being in a destination, including their quality of life, happiness and life satisfaction. The most important contribution of this study is that it considers the potential moderating effect of the risk associated with the Covid-19 pandemic on the studied relationships. Both the fourth and fifth articles approach the tourists' perspective. The fourth article is dedicated to the impact of social media and emotions on tourists' sustainable behaviours when visiting rural destinations. The last article is a contribution to the smart tourism field. This study explores the niche market of senior tourists and the role of information and communication technologies in their travel planning.

TABLE OF CONTENTS

JOURNAL OF TOURISM,
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Smart Handling of Covid-19 by a Cultural Destination, Pushkar

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ABSTRACT

The study aims to propose the understanding of shared responsibilities and social networking of a cultural destination in which different stakeholders, along with tourists, collectively can act responsibly towards any crisis. Through the example of a cultural destination, Pushkar, this study depicts various actions its stakeholders took to face the COVID-19 pandemic and attained zero covid-19 cases through effective crisis management. This study is a theoretical approach based on secondary data in analyzing the potentiality of a cultural destination to act smartly and responsibly during emergencies like the global COVID-19 pandemic. The study proposes the Shared Responsibilities Model (SRM) showcase, a roadmap for any destination to depict better crisis management through sharing responsibilities and social networking.

KEYWORDS

Cultural Tourism, Covid-19, Smartness, Social Network, Cultural Sustainability, Stakeholders.

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1. Introduction

Cultural tourism is a way of achieving socialization goals and moral development in society. Tourists and local stakeholders of a destination develop a sense of responsibility and respect towards each other (Phengsrakate & Chamaratana, 2021). The concept of cultural tourism could be applied to tourist destinations when stakeholders from different cultures come together and share a common agenda. The study examines how a cultural destination Pushkar, India, has proven itself as a responsible tourist destination during pandemic Covid-19. Pushkar has the brand image of a cultural tourism destination famously known for its folklore, handicrafts, lake, food, cattle fair, local festivals, religious rituals, and local culture. The destination is a promoter of global harmony and accepts many domestic and foreign tourists who visit here to experience its unique cultural events and traditions in its small arena. The stakeholders that involve local administration, travel agents, hoteliers, café owners, residents, and tourists make the place a symbol of universal togetherness. The pandemic Covid-19 alarmed the destinations' peaceful environment when foreign tourists who were staying for more cultural experiences after the Pushkar fair got stuck there. While the pandemic severely affected the other destinations, Pushkar remained unaffected by showing almost zero number of Covid-19 symptoms and Covid-19 positive cases. It safeguarded around 500 foreign tourists and safely arranged their accommodation, transport, and medical needs (Wadhwan, 2021). The active involvement and collaboration among major and minor stakeholders with the cooperation from tourists led to the proper handling of the situation without any chaos. People from different cultures altogether supported each other. They got helped by the administration, which properly channelized communication and information about Coronavirus risk. In this case study, the concept of a cultural tourism destination is explored where the destination brings a sense of responsibility for others' cultures and brings unity. The study explains how strategic collaboration among stakeholders by sharing responsibilities helps keep pandemics at its bay by dealing with various challenges surrounding this issue. The situation further leads towards attaining cultural sustainability among its stakeholders. Cultural sustainability establishes the trust between tourists and local destination stakeholders through social networks and proposes a theoretical Shared Responsibilities Model for stakeholders towards responsible cultural involvement. In the model, different stages of crisis management are included such that sharing responsibilities among different stakeholders in each of the stages would not only be the effective use of Social network but also make stakeholders to act smartly and responsibly towards their cultural destination.

2. Culture Tourism Destination and its Responsibilities

Cultural tourism is a tourism segment. Several determinants are analyzed and related in cultural tourism destinations like space, attractiveness, proper infrastructure, cultural resources, and many more (Khakzad, 2018). According to Crompton (1979), out of 9 tourist motivations, two motivations are related to cultural tourism while the rests are socio-economic factors. As per Richards (2001), cultural tourism is identified as a good form of tourism that builds relationships among hosts and visitors and elevates the destination's economy. Moreover, it also helps in conserving the local heritage and resources (Richards, 2018; Samaddar, 2021). It is said that the popularity of cultural tourism arose around post-World War 2 when travel and tourism across foreign destinations started opening up to share their cultural resources with the visitors (Richards, 2007). Travel helped countries to increase their cultural understandings and frame their relationship with one another. Cultural tourism in a tourist destination helps significantly in its economy by attracting tourists towards its unique community's culture, religiosity, artistic or traditional lifestyle-related attractions (Khakzad, 2018). Slowly, cultural tourism became famous and started spreading towards mass tourism, where tourists started visiting exotic destinations searching for uniqueness and foreign to them. This led to an exploration of the local culture of the area.

The acceptance of cultural tourism among mass tourists helped the local people enhance their income by providing home-stays, cooking classes, and performing their cultural folk dances, festivals, art, etc. While cultural tourism acts as a good tourism contributor, it carries immense responsibility among its stakeholders. It needs to save the local culture and authenticity from overcrowding, which is growing

in cultural destinations like Barcelona (Richards, 2019). UNWTO has recently launched UNWTO Inclusive Recovery Guide- Sociocultural Impacts of Covid-19, Issue II: Culture Tourism. This initiative shows that cultural tourism will play a significant role in establishing and regaining trust among tourists while destinations recover from Covid-19 (UNWTO, 2021). In India, each of its states has its cultural presence and importance. India is rich in its natural and artificial cultural resources, from monuments, religious sites, forts, palaces, and mountains to beautiful beaches. Popular Indian destinations like Himachal Pradesh, Jaipur, and Delhi get many tourists all year round. These destinations also carry big responsibilities among their major and minor stakeholders to maintain their cultural tourism essence (Sharma & Sharma, 2017). The duties include preservation, conservation, and collaboration among stakeholders, including tourists, to safeguard the destination's cultural environment and sustainable surroundings. The concept of Cultural Sustainability first referred during World Commission on Culture and Development (1995). The term is defined for denoting the importance of preserving cultural resources among generations to come. The need for bringing sustainability in cultural destination is essential to maintain a destination's authenticity and integrity. Cultural Sustainability is termed for intangible cultural resources like cultural heritage and cultural identity. For tangible cultural resources, nature and man-made landscapes, sculptures and monuments require sustainability for being conserved (Axelsson et al., 2013). Loach and Rowley (2021) shows that for sustaining a cultural destination, three aspects need to be conserved and promoted- cultural identity, cultural diversity and cultural vitality. Together with social mindfulness, cultural values can be conserved by bringing cultural sustainability in tourist destinations. The sharing of responsibilities through social networking shows how beautifully a cultural destination proposes a sense of respect among its stakeholders. It presents a fair example of having sustainability in the destination's surroundings where a collective benefit is given importance to preserve a destination's resources, culture and environment.

2.1 Shared Responsibilities among Stakeholders

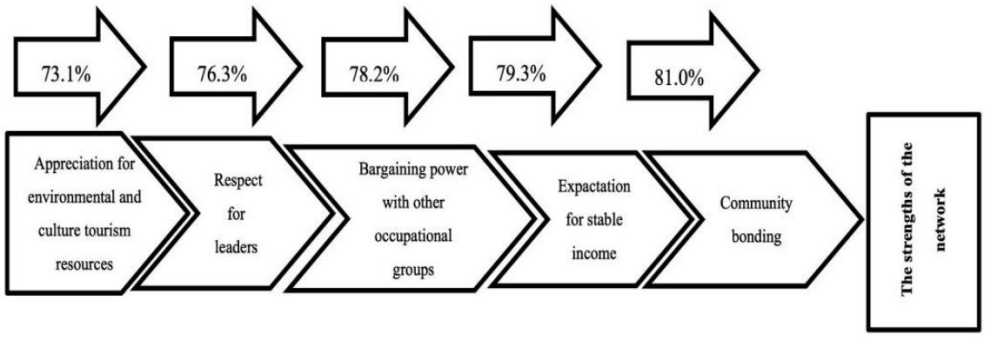
Stakeholders in a tourism location share obligations at three levels: cooperation, coordination, and collaboration. The prominent stakeholders actively participate in the partnership process, which directly benefits them. In contrast, the lesser stakeholders merely function as spectators without regard for their wants and desires. One of the critical themes in discussions about sustainable tourism and empowerment is community involvement or participation. It is acknowledged that the quality and level of participation differ across regions, particularly in developing countries. This is related to the role of stakeholders in developing the tourism industry. The top-down approach is for planning or decision-making, which places most of the authority in the hands of the government or other stakeholders with "official" status (such as an NGO), limits community involvement (Wilkinson & Pratiwi, 1995; Wall & Mathieson, 2006). There are instances where planning is managed by "outsiders," such as government officials. These individuals may see the community as "an object" of development and create plans based on "what the external stakeholders can achieve" rather than "what the community needs" (Narayanan, 2003).

Furthermore, the community's ability to reap the benefits of tourism is frequently constrained by the unequal power between stakeholders and communities in decision-making, thus impeding community empowerment (Wilkinson & Pratiwi, 1995; Narayanan, 2003). Minor stakeholders have had their influence reduced due to the top-down approach to tourism planning's acknowledged shortcomings. As a result, literature must adopt a bottom-up strategy that considers the needs and activities of significant stakeholders and the potential benefits of less active stakeholders (Narayanan, 2003; Wall & Mathieson, 2006). The strategy will improve control over stakeholder involvement on a major and minor scale through proper management of responsibility, information, and benefit distributions. By doing this, the planning process will be more controlled and efficient in the future (Wall & Mathieson, 2006). This is essential to improve everyone's quality of life, minimize unfavorable attitudes among major and minor stakeholders, and encourage collaboration with appropriate recognition and benefits (Sofield, 2003; Komppula, 2016). In order to build tourism communities and promote interaction among all stakeholders, it is necessary to define the various tasks and duties of major and minor stakeholders following their capacities (Valesca, 2021).

2.2 Social Network in Cultural Tourism

According to the social network concept, people, communities, and geographical locations are part of a relational structure with other players (Sorensen, 2007). Social network theories focused on the relationships between players, as opposed to earlier assessments that were more concerned with groups, community identities, and landscape destinations (Cenamor et al., 2017). According to "who was qualified to implement decisions and who was accepting responsibility for decisions" in tourism networks, Ladkin and Bertramini (2002) defined social networks. The first concept of social networks was created by Mitchell (1974) and was based on communities, task forces, project teams, groups, and social activities. Social networks are described as "a collection of nodes and the set of ties expressing some link, or absence of relationship, between the nodes" by Brass et al. in 2004. Social networks are "the type and extent of the impact of social relationship, social capital, partners, and encourage cooperation," (Gittell & Vidal, 1998). This study looked at social networks from two angles: linkages within the network and bonding-bridging between players involved in and interested in local tourism. Tosun (2006) described social networks as encompassing spontaneous engagement (such as active, direct, authentic, and self-participation) in earlier studies on social networks in tourism. Some academics hypothesised that network closure, interactive communication, collaboration, and coercion contribute to "those who do better being better linked" (Burt, 2000). In Pushkar, the interaction between stakeholder networks and cultural tourism is the main topic of our study. It looks at how the importance of social networks affects the tourism system of a cultural destination and how stakeholders in communities are involved (Clarke et al., 2009), and whether network relationships depend on other major and minor stakeholders. Figure 1 shows the social network model for cultural tourism destinations and their relationship with each other, as proposed by Phengsrakate and Chamaratana (2021) in their study.

Figure 1. Social Network Model for Cultural Tourism Destination



Source: Phengsrakate & Chamaratana (2021). Social Networks and Cultural Tourism: A Mixed-Method Study of the Domestic Elephant Community Model in North-Eastern Thailand.

3. Smartly Overcoming of Covid-19

The emergence of tourism in Pushkar, a small city in Rajasthan near Ajmer situated around the Aravali Mountains on its western side, has been from earlier than the 18th century. The destination enjoys several local myths, tales, cultural folklores, and cultural resources like Pushkar Lake, religious sites, and Pushkar Cattle Fair, enhancing its attractiveness. According to Hindu mythology, the destination is known to be the only place to have Lord Brahma's temple, creator of the world. The site is considered sacred among Hindus and Sikhs in India and experiences domestic tourist flow all around the year. Along with its religiosity, the destination attracts foreign tourists towards its cultural festivals, rituals, handicrafts, art, food, and universal togetherness spirit in its surroundings. In 2019, Pushkar received around 538 million visitors, about 3.5% from the previous year (Rajasthan Tourism Board, 2019). The place attracts tourists from different fields who stay in Pushkar for a longer time to experience its beauty. One can find artists, tradespeople, tourists, and researchers visiting Pushkar for various reasons and easily conversing with the locals (Monika & Kumar, 2021).

In March 2020, many tourist destinations worldwide were suffering from pandemic Covid-19 (UNWTO Report, 2020;Sigala, 2021). The situation was difficult, and a global lockdown was implemented making the tourists in destinations suffer hard due to restrictive movement. It came dawning on the destinations to fight with the disease and safeguard their residents and tourists. In 2019, the Indian tourists' destinations showed immense growth in tourists' statistics (foreign and domestic), including Pushkar. In Pushkar, many tourists extended their stay after celebrating the Pushkar Festival in November 2019. After covid-19 struck the destinations, many tourists in India got stranded due to emergency lockdown. Two thousand tourists hurriedly left Pushkar before the national lockdown, and about 500 visitors got stuck in Pushkar and have been restricted to travel due to an increase in the cases of Covid-19 (Wadhwan, 2021). Many flights were cancelled up to further notice, the responsibility of taking care of these tourists came on the shoulders of the state government. During the early stage of Covid-19, the destination, started screening its tourists from 04th March 2020, much before any other major tourist destination. Between 04th and 12th March 2020, Pushkar screened around 2300 tourists and was treated as per their outcomes (Wadhwan, 2021). Being a cultural destination, Pushkar has vigilante stakeholders who came forward to help these stuck tourists. The residents started offering their help in making the tourists do not feel helpless in Pushkar. They provided home-stays and food. The local administrative body made it mandatory for 28 days of quarantine of the foreign and domestic tourists. In this quarantine, locals came forward to provide them with daily necessities. In this situation, hotel owners also came forward. While they were suffering from cancelling and refunding of bookings, they extended their support to the tourists. According to Devika, a RAS officer in Pushkar, they ensured they could provide rooms with 50% or less rent (Sirur, 2020). According to Jay Narayan Jagdi (Wadhawan, 2021), the owner of Pushkar Inn, there is a famous Holi festival in March, and he was expecting full bookings. But, amidst such a crisis of almost no bookings, he was giving hotel rooms to the foreign and domestic guests at very cheap rates who were struggling in managing the cost of their stay in the quarantine period. The locals arranged doctors for these tourists who daily test them and coordinate his report with the local administrative body. The stuck tourists started using their quarantine time in painting, singing and knowing each other. They seem to be relaxed and grateful for the safety measures taken by local authorities and cooperation from the local community. As per Paul Jeylot, France (Wadhawan, 2021), "she is lucky to be in quarantine in Pushkar which is a spacious, close to nature and beautiful place and is very well taken care of by the local stakeholders". The local authorities kept exchanging information with foreign embassies for solutions and did not allow anyone to leave Pushkar without proper screening. Any bus sent by the local authority to send Covid-19 negative tourists to Delhi had to be quarantined with the bus driver for around 14 days. Apart from this, local collectors kept regular checks of the city's Covid-19 situation by round the clock monitoring the city. In the critical 30 days of lockdown, these procedures ensured that the remaining Pushkar tourists stayed healthy and were Covid-19 negative. After 30 days of quarantine, the foreign tourists were sent to Delhi to catch their flight towards their home country (Sirur, 2020; Gaur, 2020). Among these tourists, approx. five hundred were foreign tourists, and a majority of them were from Israel and Spain. The nearby tourism cities of Pushkar like Ajmer, Jaipur, Jodhpur, Delhi, and many more found numerous Covid-19 positive cases. They had come under the red zone whereas Pushkar remained Covid-19 free city and stayed out of the danger zone. All the roads that led to Pushkar were closed one month earlier when Covid-19 cases were more minor in number. Pushkar kept following its pro-active and preventive model, which proved to be successful in safeguarding its residents and tourists from getting affected by the disease. The model adopted by Pushkar for precaution and safety became successful by following five important Cs, which are:

- Community Aid
- Coordination
- Confidence building
- Cooperation
- Continued Screening

These five Cs depict the spirit of a cultural tourism destination that is aware of its fundamental responsibilities. The Indian government soon launched a website portal, "Stranded in India" where Covid-19 affected tourists could quickly get help from the government (Press Information Bureau, Delhi, 2020).

This initiative further helped Pushkar to send its guests without any harm. Moreover, after receiving their residents safely from India, Israel Embassy (Sirur, 2020) issued an appreciation letter in the name of the local authority head praising their quick responsiveness towards the pandemic.

3.1 Strategical Role of Stakeholders in Crisis Management

According to Samaddar et al. (2021), a cultural tourism destination promises to have more responsible behavior from its stakeholders by adopting smart strategies and steps. This is because the notion of cultural understanding among these stakeholders is high, and this makes dealing with crises like pandemic Covid-19 promptly by taking all the preventive measures. Table 1 shows different stages in which Pushkar as a cultural destination went through during the pandemic Covid-19 and how, at each stage, the stakeholders strategically took decisions and participated in nullifying the effect of the pandemic.

Table 1. Strategies and Action by Culture Tourism Destination Stakeholders in Pandemic

Stage	Strategies and Action took by Stakeholders
Stage 1: Precondition	• Organizing of network of the local administrative body and the local community • Profiling and data collection of tourists count • Proactively consultation with medical experts • Proper analysis of the crisis
Stage 2: Problem	• Collaboration among stakeholders • Increase in the case of Covid-19 in surroundings • Lack of proper knowledge about the global pandemic • Address financial and health-related issues at the ground level
Stage 3: Direction Setting	• Setting up of rules and restrictions • Blockage of all types of transport access • Early quarantine of 28 days for every single tourist • Regular Monitoring by medical experts • Ensuring proper availability of daily necessities to tourists • Sharing the common goal of the safety of everyone • Providing daily supervision and coordination with tourists
Stage 4: Implementation	• Local residents, Hotel owners, and other local stakeholders helping in providing shelter and food • Assigning roles and responsibilities to stakeholders by the local authority • Mandatory quarantine of 14 days after coming from different places • Only after proper screening, Covid-19 negative tourists allowed to travel to the airport • Ensuring zero Covid-19 positive cases • Ensuring safety and good health of residents
Stage 5: Evaluation	• Submitting data of foreign tourists in Government website portal "Stranded in India" • Reevaluation of applied strategies • Following up on the tourists' health status • Evaluating the stakeholder's responsibilities
Stage 6: Outcomes	• Zero Covid-19 positive cases in Pushkar • Tourists reaching their home country safely • Responsible behavior by tourists and local tourism stakeholders • Preparation for future crisis • Proper communication among stakeholders • Appreciation from foreign embassies including Israel Embassy • Collaborative response from stakeholders

Source: (Wadhwan, 2021; Sirur, 2020; Gaur 2020)

3.2 Challenges of Destinations faced During Pandemic

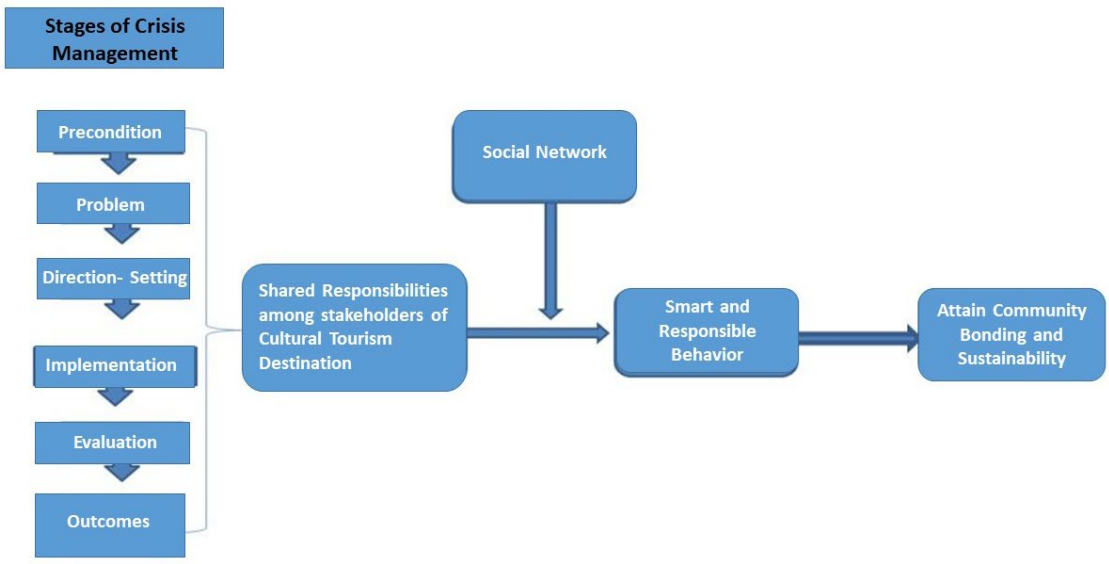
The global pandemic Covid-19 has hit the tourism destination hard, causing damages to the tourism business and its stakeholders (UNWTO Report, 2020). In this time of emergency, the existence of a tourist destination entirely depends on the actions of its stakeholders. The stakeholders faced various challenges on their part. Some of the critical challenges are:

- The popularity of cultural tourism destinations leads to over-tourism (Pinke-Sziva et al., 2019), making it tough to manage the tourists and cultural resources during a crisis.
- There is a need for helpful information and data exchange to all levels of stakeholders. For this, effective technological advancement would be needed for effectiveness of social network.
- A cultural destination is needed to be prepared to preserve its authenticity and local culture from any crisis, which practically is more complicated.
- A cultural destination has to safeguard its residents, domestic tourists, and foreign tourists equally by continuously monitoring the place, which is time-consuming and lacks man-force.
- There is a lack of crisis task force among tourism stakeholders who are needed to take quick action during critical situations.
- A more proper understanding among stakeholders, including tourists, is needed to care for each other for their well-being.

4. Shared Responsibilities Model

The probability of sharing responsibilities and attaining sustainability among stakeholders of a cultural destination is relatively high (D'Angella et al., 2021). From Table 1, we have seen that with the collective and collaborative effort at different stages during a crisis, a positive outcome has been gained, and a critical situation is dealt with responsibly. Residents, tourists, tour operators, local authorities, and hotel owners worked together to make the crisis as bearable as possible. By deriving from the different stages towards responsible behavior of the stakeholders, below is the proposed theoretical Shared Responsibilities Model, which describes different stages of a situation. The cultural involvement of stakeholders shares responsibilities to display effective social network to act in collective and smart responsible behavior and ultimately helps in attaining community bonding. The Figure 2 below shows the proposed model through the extensive evaluation from Table 1 and Social Network Model shown in Figure 1.

Figure 2. Shared Responsibilities Model (SRM) among Stakeholders of a Smart Cultural Tourism Destination



Source: Own Elaboration

In the Figure 2, the proposed SRM model shows that through integrating the strategies in each of the stages of Crisis Management derived from Table 1, a cultural tourism destination can share effective responsibilities to its various major and minor stakeholders. These responsibilities would be shared to the stakeholders as per their role in different stages. Through effective social network in collaboration with shared responsibilities, the cultural tourism destination will have smart and responsible stakeholders who shares same goal to reduce the impact of any kind of crisis happening on the destination. The collective behavior of stakeholders from different cultural background would not only make the destination responsible but smart as well. Effective crisis management cannot be achieve without the amalgamation of smart destination attributes which includes technology as most important factor (Gretzel et al., 2018). The stages of the crisis management utilizes technology for better communication and role allocation as well as providing services. To attain community bonding as well as sustainability, the shared responsibility and social network are important criteria among stakeholders which gives them an understanding and trust towards each other.

5. Results and Conclusion

The study has shown that tourists visiting a cultural tourism destination like Pushkar for local experiences show more responsibility and co-operation with local stakeholders. The collaboration among these stakeholders leads to a sense of relatedness towards each other to fight threats like pandemic Covid-19. Every stakeholder in a cultural tourism destination realizes the importance of each other's cultural values and needs to preserve them by working together through shared responsibilities. The proposed model would support the potential growth of cultural tourism destinations and their importance where the tourists would be more educated and empowered to have authentic cultural experiences by working with local stakeholders. The local stakeholders as well in a cultural tourism destination would be more supportive of cultural diversity and acceptance of tourists. On basis of this, the proposed model shows how following through different stages of crisis management, stakeholders can shared their roles and communicate at different level in order to handle any crisis with better result. In this process, the importance of social network to make the stakeholders act smartly and responsibly becomes the desired goal where each of the stakeholders are aware of their responsibility towards destination. Collaboration and sharing of responsibilities among stakeholders can only keep the trust of tourists intact and leads to the co-creation of responsible cultural tourism in the coming future.

Smartly Collaboration among stakeholders including tourists helps in resolving problems, helps in attaining a shared vision, and gives recognition to the advantages of working together. This creates a sense of shared responsibility and has a more positive effect on respecting each other's cultural values. The cultural tourism destination attracts tourists by offering their unique cultural experiences through fairs, festivals and give chance to have local cultural experiences. Apart from this, the destination also depicts its openness towards accepting and interacting with people coming from other cultures. In a time when covid-19 has proven to be a threat globally, cultural destinations like Pushkar emerged like an example of how human resources through social networking can overcome obstacles and preserve its cultural heritage and resources. These destinations offer tourists more openness towards each other's culture. To attain sustainability in current and future, one needs to be acting responsible towards nature, destination's surroundings and have respect towards the each other's culture and custom. In such way, spirit of travel would become more fruitful. The proposed SRM (Shared Responsibilities Model) model in the study gives the theoretical approach of how through different stages of crisis management, stakeholders can share their responsibilities and take tough decisions or facing critical situations. The model shows that sharing responsibility gives a positive responsible behavior collectively which helps in brings cultural sustainability to the destination. The study will certainly help destinations to recover from many unsustainable issues and will bring a positive image to the destination. Moreover, it will also help in keeping the trust and faith of tourists in the destination in the time of any crisis or disaster. The expected outcome of this study will prove to be beneficial for the sustainable development and advancement of the destination.

The study is limited of an individual destination and may or may not applied to other destinations which differ from its cultural identity and landscapes. The act of sharing responsibilities and social net-

work among stakeholders varies as per destinations as well as the strategies adopted in destination Pushkar may not work in other destination but it will surely help in taking decisions and act as a reference.

For future study, the importance of inculcation of stakeholders along with their roles and responsibilities at each of the stages of crisis management needs to be more defined and studied. In addition to this, the involvement of smart attributes to the cultural destinations is needed to be further studied to prepare the destination for future. Moreover, the effective usage of social network in handling crisis would be needed for more exploration.

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An Assessment of Compulsory Environmental Reporting by Listed Hotels in Mauritius

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ABSTRACT

In 2016, the new Mauritius Code of Corporate Governance has made it mandatory for public interest entities to disclosure some environmental information in their annual reports. Five years following the entry into force of this new Code, this research aims at firstly assessing the level of environmental reporting by hotels listed on the stock exchange of Mauritius, secondly investigating the relationship between environmental reporting and financial performance of these hotels and lastly, assessing the impact of these hotels' attributes on environmental reporting measured by their size, multinational characteristics and certification. Both qualitative and quantitative research methods will be adopted. In particular, data on each listed hotels' environmental reporting and financial performance will be taken from their annual reports for the years 2017 to 2021 and some statistical tests will be performed on these data. The findings of this research will be of use for all organisations across the tourism and hospitality industry that intend to adopt environmental or other ESG measures. These research findings may also be of help to academics, policymakers, organisations and investors to promote eco-friendly behaviour and in turn, sustainable economic development.

KEYWORDS

Corporate Governance, Environmental Reporting in Mauritius, Financial Performance and Environment, Hotels and Environmental Reporting.

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1. Introduction

Undeniably, the tourism industry creates numerous jobs and business opportunities whilst simultaneously uplifting the economic situation of any economy and Mauritius is of no exception. Mauritius is a small island located in the Indian Ocean with a population of 1.3 million as of January 2022 and having a gross national income of USD10,230 per capita (Economic Development Board, 2022). In addition to agriculture, financial services and manufacturing, tourism represents a vital economic pillar for Mauritius which contributed around 20% of the country's Gross Domestic Product in 2019 before the spread of the coronavirus although this figure has dropped to 4.6% in 2020 due to the negative repercussions on the travel and tourism industry during Covid-19 (Statista, 2022).

Essentially, to build economic resilience for the tourism sector, numerous schemes are made available by the Mauritian authorities for the development of luxurious hotels to accommodate the rise in tourist arrivals from various parts of the globe. Consequently, as of September 2022, there are 112 hotels duly licensed by the Mauritius Tourism Authority in addition to other tourist residences and guest houses for which no official figures are made available concerning their numbers (Tourism Authority, 2022). Nevertheless, one cannot undermine the impact on the environment both at the national level in terms of water and land usage, and waste production, and internationally for example by emitting carbon dioxide (Prakash et al., 2022). As such, it becomes imperative to gauge the effect of a hotel's environmental performance by establishing a system of environmental reporting which will help in targeting environmental efforts, cutting wastage and costs, monitoring progress and enhancing the repute and image of the respective hotel. In this respect, the awareness of environmental issues has prompted the Mauritian government to include some legal provisions relating to environmental reporting in the Mauritius Code of Corporate Governance back in 2016 (Code).

Basically, Section 75(2)(a) of the Mauritius Financial Reporting Act 2004 imposes a mandatory obligation on Public Interest Entities (PIEs) to comply with the Code and the list of PIEs is mentioned in the first schedule of the said act which includes inter alia entities listed on the Stock Exchange of Mauritius (SEM), financial institutions licensed by the Bank of Mauritius or the Financial Services Commission and other statutory bodies established by the relevant acts of parliament. Hence, apart from the Code's provisions on environmental reporting which are compulsory for adherence by PIEs only, there is no other regulation or statute for institutions in Mauritius to disclose environmental matters although this is considered as a means to reduce environmental damage as mentioned by Prakash et al. (2022). In this context, the research objectives of this study are three-fold, firstly assessing the level of environmental reporting by hotels listed on the Stock Exchange of Mauritius, secondly investigating the relationship between environmental reporting and financial performance of these hotels and lastly assessing the impact of these hotels' attributes on environmental reporting measured by their size, multinational characteristics and certification. Mauritius listed hotels are chosen as the target population of this study for 2 reasons, firstly because their activities are directly related to the environment and secondly, because listed entities are a category of PIEs which have to mandatorily comply with environmental reporting as per the Code.

In order to achieve these research objectives, both qualitative and quantitative research methods will be adopted. In particular, data on each listed hotels' environmental reporting and financial performance will be taken from their annual reports for the years 2017 to 2021, which are accessible freely on their respective websites. Thereafter, some statistical tests will be performed on the data collected using the SPSS software to investigate the relationship between environmental reporting and financial performance. Additionally, a qualitative document analysis and content analysis will be applied to scrutinise the Code's provision on environmental reporting as well as some existing literature on the researched topic and to determine the variables for the study.

At present, this study will be amongst the first academic writings on the extent of environmental reporting by listed hotels in Mauritius and on the relation between environmental reporting, financial performance and hotels' attributes in the tourism accommodation industry. The study is carried out with the aim of combining a large amount of empirical, theoretical, and factual information that can be of use to various stakeholders and not only to academics. While the first section of the paper has introduced the background of the research, the objectives and methods to be adopted, the second section will discuss

relevance of environmental reporting, the evolution of the code of corporate governance over the years in Mauritius and its mechanisms, some existing literature on the positive, negative and no association between environmental reporting and financial performance. Section 3 will discuss the research design adopted for the quantitative analysis while section 4 will present the empirical results. Section 5 will present the conclusion, discussion and future scope of research in the related area of study.

2. Literature Review

2.1 Definition and Relevance of Environmental Reporting

From a scrutiny of existing literature on the researched topic of this study, it was noted that the terms environmental reporting, environmental disclosure and sustainability reporting are interchangeably used by various scholars to refer to the same practice of communicating environmental information to various stakeholders. In particular, Wu and Li (2022) mentioned that environmental reporting forms part of environmental accounting which translates in a deliberate and dynamic exposure of environmental plans of an organisation to the public. In this context, an all-encompassing definition has been given by the Association of Chartered Certified Accountants (ACCA) that explains environmental disclosure as "a description of objectives, explanations and numerical information such as emissions, resources consumed by enterprises in specific environments for environmental impacts" (Ong et al., 2016).

Indeed, some scholars like Bushman et al. (2007), Zhang et al. (2020) and De Villiers et al. (2022) have highlighted the benefits of environmental reporting such as an enhanced reputation for the reporting organisation. That is, by publishing environmental information, all stakeholders are acquainted with the transparent practices of the relevant entities and will be more confident about their future strategies in terms of sustainability. Similarly, Zhao and Chen (2022) advocated for the continued practice of environmental reporting by firms since they found that people are keener to work for companies that have good environmental performance reporting. Also, it has been witnessed that some businesses are requiring their suppliers to issue environmental reports so as to oversee the entire impact of their products and services. Hence, environmental reporting may help organisations to manage their supply chains more effectively (Zhang et al., 2020). As part of their external roles, some organisations' activities undeniably impact on the environment and if not regulated and controlled appropriately, these may have severe repercussions for the future generation and for the sustainable growth of the respective enterprises as well. Consequently, environmental reporting is considered as a method to provide key performance data for further analysis with the view of enhancing environmental management, reducing risks and findings ways to save resources and reduce operating expenditure (Walls et al., 2012).

Consequently, further to the associated benefits with environmental reporting, several governments across the globe are encouraging businesses and organisations to report their environmental impacts to the public in general. These initiatives may take the form of the adoption of some subtle methods like sensitization campaigns or the issuance of voluntary disclosure guidelines, whilst others have resorted to some more strict approach like the enactment of legislation to make environmental reporting compulsory on businesses. Accordingly, Mauritius has followed the second position for the PIEs only.

2.2 The Evolution of the Mauritius Code of Corporate Governance

Basically, the only official document that mentions environmental reporting is the Mauritius Code of Corporate Governance that has undergone some changes over the years. In 2004, the National Committee for Corporate Governance (NCCG) published the Code of Corporate Governance for Mauritius which was of 144 pages long largely inspired from the UK Cadbury Report of 1992, including various principles governing the internal management of an enterprise. Among the main guiding principles of the 2004 Code were elaborated provisions on the roles of chairperson and Chief Executive Officer, the requirement for company's boards to have at least 2 independent directors and 2 executive directors, the establishment of an audit committee and corporate governance committee and some recommendations guaranteeing auditor's independence and sustainable integrity reporting. Essentially, the 2004 Code adopted a "com-

ply or explain" approach which implies that PIEs have to tick the box for areas of compliance whilst acknowledging simultaneously the other sectors of non-adherence and justifying the reasoning behind such non-compliance status. It is imperative to highlight that the 2004 Code included some limited provisions on environmental reporting mainly set out under its Section 7.4 which required the entities concerned to report in their respective annual reports the impact of their business activities on the environment and the policies and practices adopted to reduce any associated negative effects.

Subsequently, 12 years following the establishment of the 2004 Code, the NCCG decided to revise the Code in 2016 so as to align its provisions with updated laws and guidelines and to apply governance lessons from major financial scandals both in Mauritius and at the international level. The 2016 Code is of 61 pages long and includes 8 guiding principles on (1) governance structure, (2) structure of the board and its committees, (3) director's appointment procedures, (4) directors' duties, remuneration and performance, (5) risk governance and internal control, (6) reporting with integrity, (7) audit and (8) relations with shareholders and other stakeholders. Moreover, this new Code has departed from the "comply or explain" concept to adopt the "apply and explain" approach which requires the board to focus on explanations in the entity's annual report concerning the manner in which the company has applied the Code's principles. Rather than emphasizing on a tick-the-box methodology, the new Code recognises that the extent of compliance with the guiding principles differs according to individual circumstances of the entity, more precisely the size, sector and complexity of the organisation and the nature of risks and challenges that it faces.

Closely associated to the requirement for environmental reporting is Principle 6 of the Code which mentions that the "board shall present a fair, balanced and understandable assessment of the organisation's financial, environment, social and governance position, performance and outlook in its annual report and on its website". In fact, each principle of the Code is accompanied by a section relating to its implementation guideline and for Principle 6, the Code requires the narrative section of the annual report of the PIE to disclose the following 6 key elements of environmental information:

(1) Environmental commitments – This refers to the awareness by organisation of the importance of environmental issues and the framework they have established to manage and prevent environmental impacts arising from their business activities.
(2) Environmental disclosure – It means that the annual report must disclose the measures undertaken by the entity to minimise environmental harm.
(3) Environmental evaluation – It refers to the methodology devised by the entity to quantify the environmental impacts of their activities.
(4) Environmental monitoring – This requires an analysis of previous years' environmental impacts compared to that of the current year reported in the annual report.
(5) Environment carbon reduction policy – It relates to the specific reporting of carbon reduction schemes adopted by the organisation and its future plans in this regard.
(6) Environmental management responsibilities – It relates to defining the roles and responsibilities of staff within the organisation that have the duty to manage the established environmental framework to adhere to the entity's environmental commitments.

Apart from these 6 environmental reporting key factors established by the Code, Mauritian laws are silent on some other forms of environmental reporting that have been set out by existing literature such as reporting on products and technologies contributing to the sustainable use of the environment (Zhang et al., 2020), detailing specific action plans to protect soil, water and climate (Chaklader & Gulati, 2015) or disclosing the amount of environmental expenditure for engaging in environmental protection activities (Ragini, 2012). It is apposite to note that according to Section 76 of the Mauritius Financial Reporting Act 2004, a PIE has the obligation to file annual report which includes the corporate governance reporting to the Financial Reporting Council (FRC) not later than 6 months after its balance sheet date. The FRC in turn may review the annual report to determine whether the provisions of the Code have been complied with but nevertheless, there is no official data on the number of reviews conducted by the FRC in this context.

In fact, no research has been conducted yet to investigate the extent to which PIEs adhere to the above-mentioned 6 environmental reporting elements, which this existing study purports to fill in the research gap. Moreover, this research will also analyse the relationship between environmental reporting and firm's financial performance and the relevant literature on this subject will be discussed below.

2.3 The Relationship between Environmental Reporting and Financial Performance

There is a wealth of literature demonstrating the positive relationship between environmental reporting and financial performance. For example, Chiu et al. (2020) investigated the sustainability practices among listed companies on China's stock market with a particular focus on the energy industry for the years 2016 and 2017. An environmental disclosure index was established by the researchers and the impact of various variables on this index was assessed. It was found that companies having a high ROA, firm size, leverage and environmental accreditation status are more likely to publish environmental information. These findings corroborate with the results of an early study conducted by Murray et al. (2006) who sought to explore the relationship between social and environmental disclosure and the financial market performance of the UK's largest companies. The results revealed that companies with higher returns are more likely to have an elaborated disclosure of social and environmental information.

Similarly, another robust study conducted on some 230 European companies underaken by Moneva and Ortas (2010) used accounting indicators such as return on assets (ROA), return on equity (ROE), profit margin (PM), earnings per share, cash-flow and operating profits to measure financial performs of these firms. A partial least squares model was applied and the results demonstrated that enterprises which obtained higher rates of environmental performance and reporting showed better financial performance levels. Likewise, a recent study by Wu and Li (2022) analysed the same variables' relationship for heavy polluting enterprises in China from 2008 to 2019. The findings showed a positive relationship between both mandatory and voluntary environmental reporting and financial performance.

In the same light, Saini et al. (2022) examined the relationship between Environmental-Social-Governance (ESG) disclosures and financial performance. The study involved a consideration of panel data of 1,170 firm-level observations from 2012 to 2020 and the findings supported the positive link between ESG disclosure which includes environmental reporting, and corporate financial performance. Also, a research conducted by Friede et al. (2015) found that the fulfilment of ESG criteria including its reporting brings a positive financial performance. The researchers adopted a comprehensive review of around 2,200 existing studies on the subject since the year 1970 and noted that 90% of the publications showed a positive relation, 10% showed a negative effect while the remaining 10% of papers found no relation. However, this was study was only a descriptive analysis of existing publications, no firm's evidence was used to support the arguments.

In contrast, some scholars (although scarce in literature) have concluded that there is a negative or no association between environmental reporting and financial performance. For instance, Ezeagba et al. (2017) assessed environmental disclosures and financial performance in some selected food and beverage companies in Nigeria for the period 2006 to 2015. Financial performance was measured by return on equity, earnings per share, return on capital employed and net profit margin. The findings illustrated a negative relationship between environmental disclosures and return on capital employed and net profit margin each. Another study carried out by Nobanee and Ellili (2016) measured the level of corporate sustainability disclosure using annual data of listed banks in the UAE for the period 2003-2013 and it was found that environmental reporting had no significant effect on Islamic banks' performance in the UAE. Similarly, Cormier and Magnan (2007) analysed the link between environmental disclosure and financial performance of firms from Canada, France and Germany and it was found that environmental information has no significant influence on these firms' valuation of stock based on earnings.

It follows that the diverse research findings on the relationship between environmental reporting and financial performance stems from measurement issues like subjectivity or selection bias (Chiu et al., 2020). A more harmonised result may be achieved if each country's policies on voluntary environmental disclosures will be standardized. Accordingly, the link between two variables is still inconclusive although the positive relationship findings outweigh the negative or no relationship results (Friede et al., 2015). Moreover, no particular study has sought to assess this research topic for the Mauritian hotel sector in particular. For this study, the financial performance of listed hotels will be measured by the return on assets and leverage of each entity concerned. Hence, the following two research hypotheses were established:

H1a. There is a positive relationship between ROA and environmental reporting by Mauritius listed hotels.

H1b. There is a positive relationship between LEV and environmental reporting by Mauritius listed hotels.

2.4 Hotels' Attributes and Environmental Reporting

2.4.1 Size

Some researchers found that the larger an organisation is, the more it is subject to scrutiny of society in the disguised forms of political, environmental and regulatory pressures. Accordingly, large firms tend to report environmental information more than other entities (Chaklader & Gulati, 2015; Baalouch et al., 2019) and from this, hotel's size is referred to as an independent variable of this study for testing the following hypothesis:

H2. There is a positive relationship between SIZE and environmental reporting by Mauritius listed hotels.

2.4.2 Multinational Characteristics (MNC)

Organisations with MNC like forming part of a group of companies, direct investment in foreign countries or powerful organisations, tend to have a high level of environmental reporting (Meng et al., 2013; Ledoux et al., 2014). In fact, some institutional lenders consider the extent of environmental disclosure by multinationals to determine and allocate external sources of finance to the latter, which acts as a motivating factor for these entities to comply with environmental disclosure requirements. Moreover, multinationals are under the continuous scrutiny of media or governmental authorities and hence, they are more inclined to report environmental information so as to represent a sustainable entity for investors in addition to increasing their chances to attract funding. For this current study, the following hypothesis is yet to be tested in terms of MNC and environmental disclosure:

H3. There is a positive relationship between MNC and environmental reporting by Mauritius listed hotels.

2.4.3 Certification (CERT)

Studies have demonstrated that companies possessing environmental certification like ISO 14000 or Eco-Label, are more likely to have enhanced environmental reporting levels (Chaklader & Gulati, 2015; Chiu et al., 2020). Consequently, CERT is another independent variable for this study where it is measured as 1 if the respective hotel possesses a certification, or 0 if the hotel does not have any environmental certification, and the following hypothesis is formulated:

H4. There is a positive relationship between CERT and environmental reporting by Mauritius listed hotels.

3. Research Design

3.1 Data Collection

Essentially, this study aims at responding to 3 research questions, mainly what is the extent of environmental reporting compliance in accordance to the Mauritius Code, whether there is a relationship between the level of environmental reporting and financial performance and if firms' attributes have an impact on environmental disclosure. The targeted entities of this survey comprise of hotels listed on the

SEM mainly because of their heavy involvement in environmental activities and also, because literature is scarce on the environmental reporting level by the tourism and accommodation industry in Mauritius.

As of August 2022, there are only 5 Mauritius-based hotels listed on the SEM and it was decided to consider the annual reports of each hotel from each financial years ended 2017 to 2021, representing a five-year period starting from the financial year 2016/2017 when the new Code has become operational on PIEs. Information was thus collected from a total of 25 annual reports available on each respective 5 hotels' websites, to find data on environmental disclosure, financial performance and characteristics of each entity in terms of their size, certification and multinational characteristics. The data collected was thus processed and coded accordingly so that the relevant statistical tests could be performed using the SPSS software Version 21. Prior to elaborating on the statistical tests, it is relevant to discuss the various variables used for the purposes of this study.

3.2 Measurement of Variables

3.2.1 Environmental Reporting Index (ERI) as the Dependent Variable

As mentioned in Section 2.2 earlier, PIEs have to disclose 6 environmental information in their annual reports pertaining to environmental (1) commitments, (2) disclosure of measures, (3) evaluation of impact, (4) monitoring, (5) carbon reduction policy, and (6) management responsibilities. Each of these requirements may be measured using either weighted or unweighted scores (Ragini, 2012). However, the issue with weighted scoring is that every person has a subjective view of each environmental information which implies that some will see a piece of information as more important that the others. Consequently, it was decided to attribute equal importance to the 6 distinct environmental disclosure requirements as per the Code. Accordingly, each information was measured by 1 if it was disclosed or 0 if it was not reported in the annual report. Hence, the following formula was used to calculate the total ERI for each hotel in each year of study:

ERI = Total number of environmental information reported in annual report ÷ 6

3.2.2 The Independent Variables

a) Financial Performance

A research proposition was established earlier to investigate if there is a positive relationship between environmental disclosure and financial performance of listed hotels in Mauritius. Consequently, financial performance has been measured differently by various scholars but the most used one refers to Return on Asset and Leverage, as discussed in more details hereunder.

(i) Return on Asset (ROA)

Some studies have used market performance indicators like return on equity to measure the relationship between the adoption of sustainability practices and financial performance, which have unfortunately led to contradicting results. This is because stock valuation measures are based on external market performance indicators in general without much relying on internal accounting procedures which more aptly reflect an organisation's performance. In this respect, existing literature on the researched topic of this study such as Chiu et al. (2020) and Zhang et al. (2020) made use of ROA as an accounting-based measure to illustrate how the entity is making use of their shareholders' and creditors' assets, as an independent variable. Indeed, the capacity to generate profit using total assets in one accounting year is demonstrated by the ROA which represents the profitability of the entity.

ROA is therefore measured by net income divided by total assets of each listed company for the 5 financial years distinctly.

(ii) Leverage (LEV)

From a review of existing literature, it was noted that heavily indebted firms are more likely to have higher levels of environmental disclosures and hence complying much better with reporting obligations

(Zhang et al., 2020; Wu & Li, 2022). This is because they are keener to disseminate enhanced quality environmental disclosure so as to mitigate the negative effect of a highly leveraged institution from investors.

LEV is thus measured by calculating debt to assets ratio of each Mauritian listed hotels for the 5 financial years separately.

(b) Entity's Size (SIZE)

SIZE is one among the hotels' attributes that may have an impact on environmental reporting as established by existing literature. Essentially, the size of a company may be measured in terms of number of employees, total assets or turnover. For this study, the listed hotels' sizes are measured according to their respective total assets for each year of study.

(c) Multinational Characteristics (MNC)

MNC is determined by the presence of hotels in terms of their subsidiaries, branches or affiliates in more than one jurisdiction. Consequently, the dummy used for MNC under this study is 1 which refers to a hotel that is a multinational and 0 if the hotel is not for each year of study.

(d) Certification (CERT)

Dummy values are used to measure CERT that is 1 refers to a hotel which has environmental certification, and 0 if the hotel does not possess any CERT for each year of study.

3.2.3 Model Design

Further to the above hypotheses, a multiple regression equation was derived to test the relationship between the various independent variables and the dependent one as follows:

$$ERI = Y = \beta_0 + \beta_1(ROA) + \beta_2(LEV) + \beta_3(SIZE) + \beta_4(MNC) + \beta_5(CERT) + \varepsilon$$

where β_0 is the constant, β_1 to β_5 are regression coefficients and ε is the error term.

An assumption that underlies the regression model requires that there should be no problem of multicollinearity. Multicollinearity implies that the same information is shared by variables (Ho, 2006). Accordingly, there is a high level of intercorrelations and inter-associations among the independent variables. The problem is that multicollinearity results in an unstable parameter estimate which makes it difficult to assess the effect of independent variables on the dependent ones and also to obtain significant relationships. Multicollinearity on the data collected is tested by analysing the tolerance and Variance Inflation Factor (VIF). Nunkoo (2012) states that the tolerance value is a measure of the percentage of the variance in the predictor variable that cannot be accounted for by the other predictors in the model. A small tolerance value indicates an overlap between the independent variables in the study. The reciprocal of the tolerance value is the VIF value, computed as 1/tolerance. According to Ho (2006) and Field (2000), the acceptable margins of tolerance and VIF values are > 0.3 and < 10 respectively.

4. Research Findings

Some basis statistical tests were performed on the SPSS software on the data collected from the 25 annual reports and the means, standard deviations, skewness and kurtosis of each variable are illustrated in Table 1.

Table 1. Descriptive Statistics

	Number (Annual Reports)	Minimum	Maximum	Mean	Standard Deviation (SD)	Skewness	Kurtosis
ERI	25	0.17	1	0.43	0.28	0.59	-1.20
ROA	25	-0.90	0.79	0.07	0.61	-0.26	-1.46
Leverage	25	0.02	0.9	0.44	0.29	0.16	-1.41
MNC	25	0.00	1.00	0.40	0.50	0.43	-1.97
CERT	25	0.00	1.00	0.80	0.41	-0.16	0.59
SIZE	25	13.46	18.34	15.43	1.81	0.45	-1.44

Source: Own Elaboration

Table 1 demonstrates the minimum and maximum values of each variable along with their respective average means and standard deviations. The skewness and kurtosis values of each variable were also calculated to investigate the distribution of data in order to figure out the relevant correlation test to be applied later on. Essentially, it is imperative to highlight that the average mean score of the ERI stands at 0.43 (SD=0.28), which indicates that less than 50% of Mauritius listed hotels report environmental information as required by the Code of Corporate Governance since each item was attributed equal weightage of 1 over a total of 6 as described in Sections 2.2 and 3.2.1 earlier. Hence, there is a greater push required for Mauritius hotels to increase their disclosure and transparency in terms of environmental mechanisms and other related matters.

Concerning MNC, it is noted that only 2 of the 5 listed hotels have an international presence which is evidenced by Table 1 illustrating the average mean value of 0.40 (SD=0.50). It can thus be deduced that Mauritian listed hotels are mostly managed at the local and domestic level and one of the reasons behind may be due to the fear of expanding in other markets. Regarding the CERT variable, it was noted that 5 of the 6 hotels under this study possess some particular categories of environmental certification such as MCERTS, EMAS or ISO 14001 (Mean=0.80, SD=0.41). Moreover, a notable decrease in the financial performance of these listed hotels was noted during the financial year 2020/2021 more specifically in terms of the ROA. This is mainly attributed to the decrease in tourism activities during Covid-19 emergency situations such as lockdown and social distancing measures established by the Mauritian government.

Table 1 also illustrates that each variable's respective skewness and kurtosis values range from -2 to +2, which demonstrates that data follows a normal distribution (Hair et al., 1998; George & Mallery, 2010; Gravetter & Wallnau, 2014). Moreover, it was decided to conduct a correlation test between all variables under the study and according to Zou et al. (2003), the correlation coefficient value is generally interpreted in the below Table 2 as follows:

Table 2. Description of Correlation Coefficients

Correlation Coefficient Between	Description
-0.2 and +0.2	Little or No Correlation
+0.2 and +0.4 or -0.4 and -0.2	Very Weak Correlation
+0.4 and +0.6 or -0.6 and -0.4	Weak Correlation
+0.6 and +0.8 or -0.8 and -0.6	Moderate Correlation
+0.8 and +1 or -0.8 and -1	High Correlation

Source: Own Elaboration

Due to the normality of data distribution, the Pearson correlation test was applied on the SPSS software and the results are portrayed in Table 3 hereunder:

Table 3. Results of Inter-Variables Correlation (** Correlation is significant at 0.01 (2-tailed))

	ERI	ROA	LEV	MNC	CERT	SIZE
ERI	1					
ROA	0.69**	1				
LEV	0.80**	0.58**	1			
MNC	0.82**	0. 72**	0.55**	1		
CERT	0.21	0.13	0.14	0.19	1	
SIZE	0.73**	0.56**	0.76**	0.57**	0.00	1

Source: Own Elaboration

Further to the interpretation given by Zou et al. (2003) described earlier, a weak or no correlation is noted between CERT and ERI, ROA, LEV, MNC and SIZE (r=0.21, 0.13, 0.14, 0.19). However, the correlation between ERI and ROA (r=0.69), LEV (r=0.80), MNC (r=0.62) and SIZE (r=0.73) each falls under the category of "moderately correlated". Moreover, the relationship between ROA and LEV (r=0.80) and that with MNC (r=0.82) demonstrates a high correlation while the correlation between ROA and SIZE (r=0.56) falls under the category of "weakly correlated". A moderate correlation has been noted between LEV and SIZE (r=0.76) while a weak relationship has been revealed between MNC and SIZE (r=0.57).

Having correlations between the variables under this study indicates the existence of strong relationship among them and this forms the underlying basis to perform some more advanced test since the correlation test does not show cause and effect. Accordingly, a regression analysis was performed on the data obtained and the results are illustrated in Table 4 below.

Table 4. Results of Regression Analysis (**Statistically significant at 0.05 level (2-tailed))

	UnStd. Coeff.	Std Error	Beta *(β)*	*t*	*p*-value-	Tolerance	VIF
ROA	0.13	0.05	0.27	2.34	0.03**	0.42	2.38
LEV	0.06	0.18	0.06	0.31	0.76	0.46	2.17
MNC	0.28	0.10	0.49	2.78	0.01**	0.32	3.13
SIZE	0.04	0.02	0.25	2.67	0.02**	0.31	3.23
CERT	0.18	0.071	0.26	2.55	0.12	0.37	2.71

Source: Own Elaboration

Table 4 presents the results of the regression analysis carried out on the SPSS software with ERI as the dependent variable and the financial performance and firm's attributes (MNC, SIZE, CERT) as the independent ones. As explained earlier, the multiple regression analysis underlies the assumption of no multicollinearity and accordingly, Table 4 displays the VIF and tolerance values all of which are within the acceptable range of 0.3 and 10 (Field, 2000; Ho, 2006) which indicates no issues of multicollinearity. As mentioned earlier, the ROA of each hotel was found to be lower during the financial year 2020/2021 due to the Covid-19 pandemic. Nevertheless, since only one financial year's performance is impacted of the total 5 years, the net effect on ERI is noted as being immaterial. The findings therefore reveal a statistically significant and positive relationship between ERI and ROA (β=0.13, t(25)=2.34, p<0.05). Accordingly, hypothesis H_{1a} is supported which implies that there is a positive relationship between ROA and environmental reporting by Mauritius listed hotels. In other words, hotels having better financial performance are more likely to disseminate more environmental information in their annual reports. This finding is in line with existing literature that were previously established by Chiu et al. (2020) and Zhang et al. (2020).

The results also reveal a statistically positive correlation between ERI and MNC (β=0.28, t(25)=2.78, p<0.05) and with SIZE (β=0.04, t(25)=2.67, p<0.05) which are consistent with the findings of Meng et al. (2013), Ledoux et al. (2014), Chaklader and Gulati (2015) and Chiu et al. (2020). As such, hypotheses H_2 and

H_3 are supported which implies that there is a positive relationship between SIZE and MNC each with the level of environmental reporting by Mauritius listed hotels. For firm's size, it can be explained that the larger an organisation is, the more it is expected to disclose environmental information since it is more prone to the public's lens and scrutiny and attract more attention from regulators. This reasoning also applies for multinational characteristics since the institutional shareholders are now increasingly considering ESG reporting which includes environmental disclosures when making investment decisions. Hence, to attract investors, listed hotels need to report environmental information in their annual reports. The relationship between ERI and the variables LEV and CERT are not individually significant at a 5% significance level. These findings are inconsistent with the results derived by Wu and Li (2022), Chiu et al. (2020) and Zhang et al. (2020) who found a positive correlation between ERI and each of LEV and CERT.

5. Conclusion

The objectives of this research were to assess the level of environmental reporting by hotels listed on the SEM, investigate whether there is a relationship between the extent of environmental reporting and financial performance of these hotels and examine the impact of these hotels' attributes on environmental reporting in terms of size, multinational characteristics and certification.

Primarily, the statistical tests effectuated reveal that while the Mauritius Code of Corporate Governance has explicitly introduced 6 environmental reporting areas for PIEs to disclose in their annual reports, the ERI for listed hotels in Mauritius is still low with an average mean score of 0.43 (SD=0.28). Unfortunately, there is no system of continued monitoring for PIEs' compliance with the Mauritius Code despite that the Financial Reporting Council of Mauritius is empowered by the laws of Mauritius to look into reporting requirements on a case-by-case basis. There is also no legal sanction imposed on PIEs for non-disclosure of environmental information as per the Code's requirements. This shortcoming in turn questions the adequacy of the Mauritian legal and regulatory framework to adopt and report environmental initiatives.

Additionally, existing literature has established a positive link between environmental reporting and financial performance. The same relationship was tested for Mauritius listed hotels and the results reveal a statistically significant correlation between ERI and ROA. It follows that hotels with better financial performance wants their stakeholders to know that they are sustainable and care for the environment by disclosing their environmental measures. This finding is consistent with the studies conducted by Chiu et al. (2020) and Zhang et al. (2020) respectively. However, no significant relation was found between ERI and each of leverage and certification.

Lastly, while investigating the effect of firm's attributes on ERI, it was noted that hotels with bigger sizes and possessing multinational characteristics are more committed to disclose environmental information in their annual reports in accordance with the requirements of the Mauritius Code of Corporate Governance. This implies that larger hotels and those with a presence in various countries tend to be more accountable to the society at large by showcasing their initiatives and endeavours to protect the environment to their stakeholders. This finding is in line with previous literature on the subject such as Baalouch et al. (2019), Chaklader and Gulati (2015), Ledoux et al. (2014) and Meng et al. (2013).

Undeniably, with climate change being in the limelight, the Mauritian government has been sensitive and proactive by requiring Public Interest Entities to consider environmental reporting as per the Mauritius Code of Corporate Governance. This mandatory reporting requirement forces Mauritius listed hotels to be more innovative and adopt sustainable practices. In this attempt, it becomes imperative for hotels to prioritise environmental practices in order to obtain positive attentions from stakeholders. Nevertheless, there is a need to institute a penalisation and sanction framework for those PIEs that do not comply with the Mauritius Code environmental reporting requirement. This is because a low level of environmental reporting has been noted for listed hotels in the country and apart from sensitization and educational campaigns along with some other subtle methods, a stricter approach is required since environmental issues concerns each and every one of us. In particular, there is a higher need for the Financial Reporting Council notably to be more active in scrutinising the level and extent of environmental reporting by PIEs in their annual reports since this institution has been bestowed upon such capacity under the Financial Reporting Act of Mauritius. Consequently, PIEs will be on their guard to ensure that the appropriate envi-

ronmental matters are properly disclosed in their annual reports instead of facing the constant risk of being penalised by the Financial Reporting Council. This enhanced reporting and compliance with the Code will thus ensure more transparency and will be appealing to investors who search for environmentally friendly investment opportunities.

As of now, there is no research published on the extent of environmental reporting as a requirement of the Code in Mauritius. Hence, the findings of this research will be of use for all organisations across the tourism and hospitality industry in Mauritius that intend to adopt environmental or other ESG measures. These research findings may also be of help to academics, policymakers, organisations and investors to promote eco-friendly behaviour and in turn, sustainable economic development. Future studies in this line of research may be conducted for other PIEs such as those operating in the banking sector, financial services sector or for public and parastatal bodies to assess their level of environmental reporting compliance as required by the Mauritius Code.

Nevertheless, each research is accompanied by some limitations and one of them related to this study concerns the restricted number of hotels that are listed on the Stock Exchange of Mauritius which stands at only 5. Hence, the low level of environmental reporting deduced in this study may not be the same for other entities operating in the tourism industry especially bearing in mind that there are 112 hotels duly licensed by the Mauritius Tourism Authority although the majority of them are not listed and accordingly, the compulsory environmental reporting obligations do not apply to them. As such, the research findings have to be interpreted in the light of this limitation. It is therefore suggested that some future research be conducted on this subject matter in the context of the non-listed Mauritian hotels that report environmental matters on a purely voluntary basis and some other tourism related organisations as well.

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Effects of Tourism on Local Residents' Quality of Life, Happiness and Life Satisfaction: Moderating Role of the COVID-19 Risk Perceptions

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ABSTRACT

This study examines the effects of tourism on local residents' quality of life, happiness and life satisfaction. It also examines how locals' perceptions of the level of risk the COVID-19 pandemic poses on a destination moderates those effects utilizing data collected from residents of a mature tourism destination. The results suggest that economic benefits have significant influence on happiness while environmental and socio-cultural benefits influence quality of life perceptions. Findings also indicate a moderating effect of COVID-19 risk perceptions in the relationship between tourism and happiness and quality of life. These findings suggest that the perceived risk of COVID-19 pandemic on the destination affects individuals' both affective and cognitive evaluations; therefore, it serves as an effective factor in decision-making.

KEYWORDS

Tourism Impacts, Risk Perception, COVID-19, Happiness, Quality of Life, Life Satisfaction.

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1. Introduction

Any form of tourism development will have some impacts on the local community and local residents' lives (Yu et al., 2016). Since these impacts on a local community are of very critical determinants of the appropriateness of tourism development, the effects of tourism development on the wellbeing of individuals and communities have received some attention from tourism scholars (Hartwell et al., 2018), and the number of studies examining the relationships between tourism and different wellbeing concepts such as happiness, quality of life and life satisfaction have been increasing in recent years (Liang & Hui, 2016; Hartwell et al., 2018; Bimonte et al., 2019). While happiness is the evaluation of feelings and emotions (Yu et al., 2016), quality of life expresses the gratification with different life domains (Carneiro et al., 2018). On the other hand, life satisfaction is the overall outcome of holistic evaluation of life, and it arises as comprehensive result of happiness and quality of life (Chen & Li, 2018). However, previous studies have mostly investigated the relationship between tourism and only one of those three concepts, or conceptualized them as sub-dimensions of each other. Only a very small number of studies have examined all three holistically.

A number of external and macro environmental factors such as crises can influence the degree of impacts of tourism on wellbeing of individuals and communities. Over the years, scholars have examined the effects of financial crises (Qiu et al., 2020; Zhang et al., 2021), wars, terrorist attacks (Song et al., 2019), natural disasters and industrial accidents (Chew & Jahari, 2014), climate change (Soboll et al., 2012), refugee crises (Pappas & Papatheodorou, 2017), and epidemic diseases such as SARS, swine flu, and the Ebola virus (Qiu et al., 2020; Agyeiwaah et al., 2021). While all these crises had significant impacts on the tourism industry, the effects of COVID-19 pandemic have been on a significantly different scale compared to the previous crises (Higgins-Desbiolles, 2020).

While a number of studies examined the effects of the pandemic on tourism, scholars have mainly focused on the effects of COVID-19 pandemic on tourists' choices and decision-making, and demand levels. Studies on tourists' behavior have highlighted the changes in destination preferences (Huang et al., 2021; Kim et al., 2021), and the importance of safety, health and hygiene (Kaushal & Srivastava, 2021). Studies that investigated the impact on demand levels have reported that the industry shrunk significantly, which resulted in significant loss of income and bankruptcies (Kaushal & Srivastava, 2021). They also reported increases in layoffs and unemployment (Higgins-Desbiolles, 2020), which consequently created job insecurity, decreased employee motivation, and increased employees' intention to seek work in other sectors (Bajrami et al., 2021).

Even though the socio-economic and psychological consequences of crises have significant effects also on individuals and societies (Salman et al., 2021), only very few studies examined local residents' perceptions of and attitudes towards tourism during the pandemic. However, they reported contradictory findings. While some studies reported increases in negative impact perceptions and decreases in support (Armutlu et al., 2021), others reported that while negative perceptions increase, support level stay the same (Woosnam et al., 2021). Moreover, some other studies pointed out that perceptions become more positive in times of crisis, and the support attitudes intensify due to economic reasons (Kamata, 2022). However, even though economic and social problems caused by the pandemic significantly affected individuals and communities (Bou-Hamad et al., 2021) including the lives of local residents (Kim et al., 2013), the impacts of COVID-19 on residents' wellbeing have not received much attention.

This study aims to address these research gaps in understanding impacts of tourism on locals' happiness, quality of life and life satisfaction during COVID-19 pandemic. More specifically, this study addresses two important issues. First, it examines, holistically, the relationships between the benefits of tourism and quality of life, happiness and life satisfaction, which is often analyzed in a piece meal fashion in the literature. Second, it examines the moderating role played by locals' perceptions of the risks posed by COVID-19 in the relationships between the perceived benefits of tourism and happiness and quality of life. Since the effects of the COVID-19 pandemic is likely to be longer lasting than previous epidemics (UNWTO, 2021), it will continue to be one of the important elements in tourism planning (Kamata, 2022). Therefore, findings of this study will also contribute to the literature on tourism planning in the 'new normal' era and provide critical insights to destination managers, marketers and planners.

2. Literature Review

2.1 Impacts of Tourism

Many studies have examined the impacts of tourism as one of the critical determinants of the success and sustainability of any form of tourism development (Liang & Hui, 2016; Chi et al., 2017). These impacts generally have been investigated as having both positive and negative economic, environmental and socio-cultural dimensions. Locals' perceptions of these impacts can change over time due to changes in a number of external and internal factors such as the type of tourism a destination offers, the stage of development, personal benefits gained from tourism, etc. (Kim et al., 2013).

Even though tourism can result in both positive and negative impacts on a community, most studies focused on the positive economic impacts such as tourism's ability to diversify local economies (Liang & Hui, 2016) and attract investors (Rivera et al., 2016), create jobs and income opportunities (Holm et al., 2017). However, studies also underlined that tourism may also result in economic dependency by causing a decrease in or disappearance of traditional (fishing, agriculture, forestry etc.) industries (Ozturk et al., 2015).

From a social impact perspective, tourism increases the human capital of the local community and improves the status and role of women in family and society (Liang & Hui, 2016). In addition, it increases the quality and quantity of outdoor facilities such as parks, roads, theaters, hiking and biking trails (Holm et al., 2017). On the other hand, it can also result in negative consequences such as overcrowding, traffic jam, overload in public services, conflicts in the community and increase in gambling, prostitution, vandalism, crime and use of drugs (Mbaiwa, 2005).

Tourism contributes to cohesion in communities through enhancing understanding and cultural exchange among community members and societies. It also helps the revival of the local culture and pride (Tosun, 2002). However, tourism is also often accused of being a 'culture exploiter' industry (Holm et al., 2017) leading to the deterioration and corruption of traditional culture (Mbaiwa, 2005) and local lifestyle, and a violator of privacy (Liang & Hui, 2016).

From an environment perspective, tourism is perceived to be a cleaner and environmentally friendly industry compared to some other industries (Holm et al., 2017) because it increases awareness of environmental protection, supports the growth of environmental infrastructure, revitalizes the environmental conservation efforts and improves the physical appearance of the environment (Ozturk et al., 2015). However, many studies have also emphasized that tourism and tourists can cause environmental pollution and destruction of natural life and resources, alter traditional land uses, cause intense and illegal construction and irreversible destruction of nature (Çalişkan & Özer, 2021).

Many theoretical frameworks have been developed on tourism perceptions of local people. For example, models such as IRRIDEX by Doxey (1975) or TALC by Butler (1980) claim that local people would initially perceive tourism positively, but over time perceptions would evolve negatively due to negative impacts of tourism. Similarly, social exchange theory (SET) supposes that local people evaluate tourism from a rational and materialistic perspective (Nunkoo & Ramkissoon, 2009). On the other hand, the social deterioration hypothesis predicts that rapid socio-economic changes, like tourism development brings, would lead to decrease in the quality of life, but afterwards the local people would adapt and have positive perceptions (Chhabra & Gursoy, 2007). Social representation theory (SRT) or the theory of reasoned action (TRA), argue that perceptions are formed by the social relations (Fredline, 2005), and social groups (therefore, by the matters affect the society) (Wassler et al., 2019).

2.2 Happiness, Quality of life, Life Satisfaction and Tourism

From positive psychology perspective, there are two well-being research paradigms; personal wellbeing (PWB) and subjective wellbeing (SWB) (Nawijn & Mitas, 2012). The PWB, which is known as 'eudemonia', deals with the meaning of life, self-actualization, virtuous behaviors, transcendence, and the realization of life goals (Ozturk et al., 2015; Smith & Diekmann, 2017). On the other hand, SWB reflects the hedonic perspective and focuses on the pleasures and positive emotions gained through certain activities and deals with happiness, quality of life, and life satisfaction (Nawijn & Mitas, 2012; Sirgy, 2019). Subjective wellbeing

refers to the assessment of life experiences and is based on individuals' comparison of their current state to a standard set by themselves. Therefore, it focuses on individuals' self-evaluation of their own lives (Diener, 1994). Scholars have used various conceptualizations of SWB, which caused confusion. For example it has been examined through a broad range of concepts, which are generally used interchangeably, such as quality of life, life satisfaction, happiness, wellbeing, welfare or health (Bimonte & Faralla, 2016; Carneiro et al., 2018). Even though these concepts are similar and related (Yu et al., 2016), they are also conceptually different (Martin et al., 2010). Suess, Baloglu, & Busser (2018) state that the subjective well-being consists of emotional dimension (happiness), cognitive dimension (quality of life) and life satisfaction as an outcome of these two factors.

Happiness refers to 'enjoyment of life' (Nawijn & Mitas, 2012) based on individuals' assessment of their feelings and emotions such as joy, fun, sadness or pessimism about their life (Yu et al., 2016). Quality of life refers to the feeling of contentment from particular life domains such as physical, psychological, social, economic, or spiritual (Manning-Walsh, 2005). Therefore, it is a "subjective experience dependent on an individual's perceptions and feelings" (Carneiro et al., 2018, p. 484) and is about "how people view, or what they feel about their lives" (Hartwell et al., 2018, p. 1834).

Life satisfaction refers to the level of gratification with physical and psychological experiences or accomplishments of wants and needs (Holm et al., 2017). It represents the outcome of the self-assessment of circumstances in individuals' lives, that is, the importance of life conditions for individuals and their level of satisfaction with those conditions (Diener, 1994). In other words, life satisfaction is the overall gratification of life (Chen & Li, 2018) and therefore is considered as an overall indicator of happiness and quality of life (Eslami et al., 2019).

Studies have argued that many factors like home ownership (Liang & Hui, 2016), type of employment (McCabe & Johnson, 2013), number of tourists (Ivlevs, 2016), public services (security, roads, cleaning, education, health, recreational/cultural activities, etc.) (Chi et al., 2017) can have significant impacts on wellbeing. However, impacts of tourism development have been the most studied elements (Woo et al., 2015; Liang & Hui, 2016; Carneiro et al., 2018).

The literature underlines that tourism development affects the happiness of local populations (Nawijn & Mitas, 2012; Rivera et al., 2016). However, the direction and magnitude of these effects in previous studies show significant differences. For example, while Rivera et al. (2016) found that all types of tourism benefits positively affect locals' happiness, Kafashpor, Ganji, Samaneh & Johnson (2018) and Movono, Pratt & Harrison, (2005) found that happiness is affected only by the socio-cultural consequences of tourism. Similarly, Kim et al. (2013) reported that social benefits are related to happiness. Others also reported that economic, social (Bimonte & Faralla, 2016), environmental (Yu et al., 2016), and socio-cultural impacts (Ozturk et al., 2015) can affect locals' happiness.

Studies examining the relationship between the impacts of tourism and quality of life have also reported very divergent and significantly different results. While some scholars argued that all impacts of tourism influence quality of life (Kim et al., 2013; Suess et al., 2018), others reported that only some of the impacts are effective (Eslami et al., 2019). For example, while Bimonte et al. (2019) found that tourism decreases quality of life, others suggested that tourism affect the quality of life positively (Alrwajfah et al., 2019). Andereck & Nyaupane (2011) reported that economic, environmental and cultural benefits are influential determinants of quality of life. Yu et al. (2016) found that socio-cultural and environmental benefits affect quality of life.

The diversity and complexity of the findings are further exacerbated when relationships between tourism and happiness and quality of life were examined simultaneously. While Nawijn & Mitas (2012), reported that tourism affects quality of life but not happiness, Chi et al. (2017) found that particularly social impacts affect both quality of life and happiness. Similarly, Kafashpor et al. (2018) found that happiness is related to social impacts and quality of life is related to economic, environmental and cultural outcomes. Moreover, Chi et al. (2017) emphasized that, in destinations that are economically dependent on tourism, tourism benefits affect happiness and quality of life, but negative impacts do not. Based on the preceding discussions, this study proposes that;

H1. Perceived positive economic (a), environmental (b) and socio-cultural (c) benefits increase residents' happiness.

H2. Perceived positive economic (a), environmental (b) and socio-cultural (c) benefits increase residents' quality of life.

On the other hand, studies present a clear link between happiness, quality of life and life satisfaction. For example, Park, Peterson & Ruch (2009), and Selim (2008) reported that happiness predicts life satisfaction; as happiness increases, life satisfaction does too. Others documented that quality of life and life satisfaction are closely linked and quality of life predicts higher life satisfaction (Garrido et al., 2013). Thus, this study proposes that;

H3. Residents' happiness (a) and perceived quality of life (b) increase their life satisfaction.

2.3 Risk Perception

Risks are defined as danger, damage, or loss, which affect safety or health, and can occur at both individual and communal levels (Kim et al., 2021). While at the individual level, risks include harassment, extortion, rape, financial loss, etc., at the communal level, they include political or social instability, natural disasters, terrorist attacks, epidemics, etc. (Yang et al., 2020). Risk is generally identified as a negative situation with unpredictable and uncertain consequences (Berbekova et al., 2021), and the term 'perceived risk' refers to subjective assessments of uncertainty and potential losses (Quintal et al., 2010). Therefore, it can differ among individuals (Joo et al., 2021).

Protection Motivation Theory (PMT) (Rogers, 1975) describes how individuals perceive and evaluate any risk (Hsieh et al., 2021; Nazneen et al., 2022). PMT states that individuals experience risk appraisal and coping appraisal processes when they face with a threat or the possibility of a dangerous outcome (Gumasing et al., 2022). While in risk appraisal, also called as risk perception (Hsieh et al., 2021), individuals assess the magnitude of threat and the possibility of being harmed (Nazneen et al., 2022), coping appraisal includes personal responses to eliminate or minimize the threat (Gumasing et al., 2022; Nazneen et al., 2022). According to the TMP, high risk perceptions encourage individuals to engage in risk avoidance behaviors (Rad et al., 2021; Gumasing et al., 2022; Kim et al., 2022), and people are likely to exhibit coping behaviors in situations where the perceived risk is high.

Scholars utilized PMT to investigate individuals' attitudes about health-related issues such as influenza, H1N1, SARS epidemics, infectious diseases, or cancer (Rad et al., 2021), as well as natural disasters such as Typhoons (Gumasing et al., 2022). In tourism field, PMT has been used mostly to examine changes in tourist behavior caused by crises like the COVID-19 pandemic (e.g., Kim et al., 2022; Nazneen et al., 2022). Studies reported that tourists avoid traveling to areas where COVID-19 is concentrated (Joo et al., 2021), avoid interactions with locals (Salman et al., 2021) and prefer less crowded rural areas (Zhu & Deng, 2020). Although crises can influence also the local residents' perceptions of and attitudes towards tourism (Qiu et al., 2020; Salman et al., 2021; Joo et al., 2021), only a few studies have examined them during crises (Sharifpour et al., 2014).

These few studies indicate that if tourism is important for the economic viability of a destination, as in case of Bodrum, and if a crisis leads to significant decreases in demand, residents may overlook the negative outcomes of tourism development, and focus on protecting the gains tourism can bring to their community (Garau-Vadell et al., 2018), especially during the times of both economic and social difficulties, such as the COVID-19 pandemic (Kamata, 2022). Therefore, in this study, local residents' perceptions of positive impacts of tourism were taken into account.

Furthermore, Kim et al. (2022), argue that an individual's risk assessment can also significantly affect his/her thoughts about his/her own individual lifestyle. However, only few studies have examined how lives of local residents residing in tourism destinations are affected by the COVID-19 pandemic. For example, comparing Egypt, Portugal and Turkey, Seabra et al., (2021) found that the risk perception of COVID-19 negatively affects the daily life of local people.

Perceived risk may also affect the strength and direction of the relationship between independent variable(s) and dependent variable(s) (Pangaribuan et al., 2021), and serve as a 'moderator' for subjective evaluations (Lo, 2013). Thus, perceived COVID-19 risk is likely to moderate locals' perceptions of tourism and its impacts on personal lives. However, the impact of COVID-19 risk perceptions on local residents' personal lives have not received adequate attention. It is not clear how residents' perception of risk posed by the COVID-19 pandemic influence their wellbeing perceptions. As suggested by Ramkissoon (2020), the impact of the COVID-19 pandemic on wellbeing of residents in tourism destinations needs further examination. To address this gap in the literature, this study examines the moderating role of COVID-19 risk perceptions on the relationship between perceptions of tourism and happiness and quality of life.

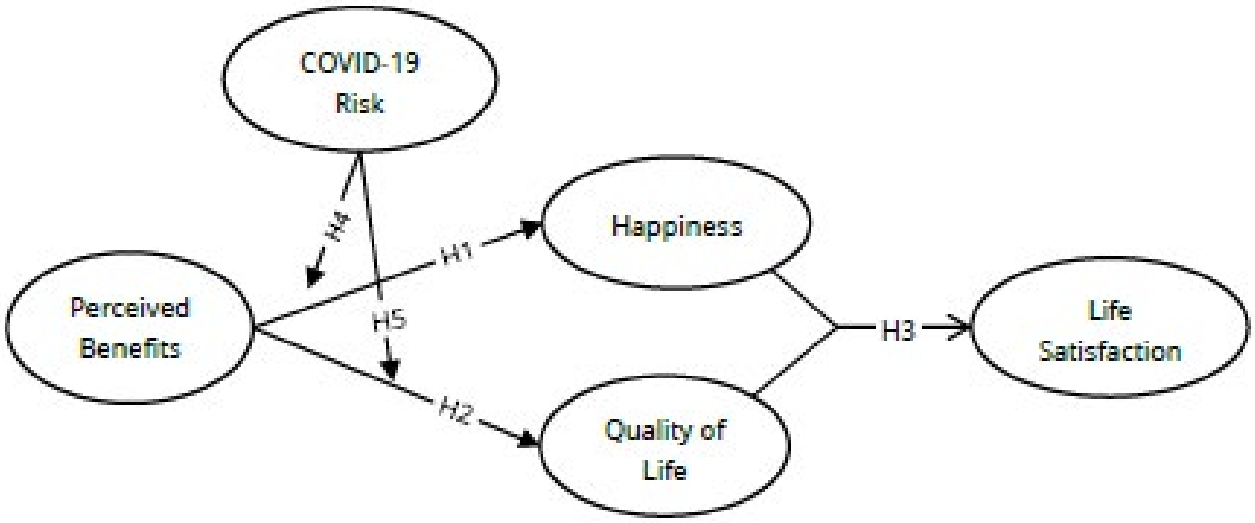
Based on PMT and literature, this study argues that residents in a tourism destination who perceive that the COVID-19 pandemic poses a significant risk to tourism in their destination are more likely to use positive impacts as a psychological magnifier and, thus magnify the positive impacts of tourism on their happiness and quality of life to cope with the perceived threat caused by COVID-19 pandemic. This coping behavior helps them reach a balanced psychological state and reduce the anxiety caused by the pandemic. Therefore, when the risk of COVID-19 pandemic on the destination is perceived as high, the positive effects of tourism benefits on happiness and quality of life will be stronger. Accordingly, the hypotheses are proposed:

H4. COVID-19 risk perceptions on the destination strengthens the positive relationship between perceptions of economic (a), environmental (b) and socio-cultural (c) benefits and residents' happiness.

H5. COVID-19 risk perceptions on the destination strengthens the positive relationship between perceptions of economic (a), environmental (b) and socio-cultural (c) benefits and residents' quality of life.

By examining the moderating role of COVID-19 risk perceptions on the relationships between impacts of tourism and the well-being of residents, this study expands the literature and thus contributes to gaining new perspectives on tourism planning and policies during and post-COVID-19 period. The proposed research framework is presented in Figure 1.

Figure 1. Conceptual Model



Source: Own Elaboration

3. Methodology

3.1 Sampling, Instrument and Data Collection

Data for this study were collected from the residents of Bodrum, Turkey. Bodrum, where 181,541 people reside (Turkish Statistical Institute (TUIK), 2021), is the third most visited tourist destination in Turkey, just after Antalya and Istanbul. It has intertwined with tourism since the 1960s, however, tourism has developed mainly since the mid–1980s and now Bodrum is an internationally renowned destination. Tourism, based on sea–sand–sun, has become the main economic activity in Bodrum (Bodrum Chamber of Commerce, 2007). Bodrum hosted 1.75 million tourists in 2019, including around one million international tourists. In 2020, when the COVID-19 pandemic started, this number fell to around 900 thousand, of which 250 thousand were international tourists (Ministry of Culture and Tourism, 2021).

The items used to measure the constructs were identified through a comprehensive review of the literature. Ten items on tourism benefits were adapted from Chi et al. (2017) and Liang & Hui (2016). Three, two and five items were used to measure economic, environmental and socio-cultural benefits, respectively. Quality of life, happiness and life satisfaction were measured by ten items identified from previous studies (Andereck & Nyaupane, 2011; Kim et al., 2013; Chen & Li, 2018). Four items from Qiu et al. (2020) were utilized to measure risk perception of COVID-19. All items were measured using a 5–point Likert type scale (1: Totally disagree, 5: Totally agree). Respondents' demographic information was also gathered.

Since the list of the universe could not be reached, convenience sampling method was used. In convenience sampling, participants are included to the survey based on their volunteer, and accessibility (Bornstein et al., 2013). Although the convenience sampling is disadvantageous to generalize the results, it is frequently used in social sciences because it is fast and economic, and it is very useful to get clues and basic information quickly and efficiently in the explanatory phases of the researches (Sekaran, 2000). Data were collected between March and June 2021 by trained research assistants. To compile the opinions of different social segments, the data were gathered in commercial and residential areas on different days of the week and at different times of the day. During the week, data were collected in the afternoon in commercial areas and between five and seven pm in residential zones having different socio-economic features, while in weekends, data were gathered all day both in commercial and residential zones. Research assistants were asked to intercept every tenth resident in the most frequented commercial areas, and to start with the third building in the street and then visit every fifth building, and select the flats randomly, in the residential zones.

Once the respondent was identified, he/she was briefly informed about the purpose and content of the study. Afterwards, the participants completed the questionnaire themselves. Totally 584 responses were obtained. After eliminating responses with missing data, 572 responses were retained. Hair, Black, Babin & Anderson (2014) suggest that 10 responses are required per item. Therefore, data from at least 240 questionnaires were necessary since the questionnaire form had 24 items. Moreover, Sekaran (2000) suggest that 384 survey data is sufficient for populations over 75,000. So, the number of responses was considered satisfactory for the analysis.

3.2 Data Analysis and Findings

Data were analyzed through multivariate statistical methods. Using SPSS (Statistical Package for the Social Sciences) version 22.0, descriptive analyzes and Explanatory Factor Analysis, and using AMOS, version 21, Confirmatory Factor Analysis and a Structural Equation Modeling were run. First, the normality of data was checked. The Skewness and Kurtosis values of items were all less than 2, indicating a normal distribution of the data (Kline, 2011). Afterwards, the demographic characteristics of the respondents were examined. As presented in Table 1, approximately 54% of the respondents were female and 53% were married. 67.7% of the respondents were in the 26–55 age range, and 54.2% had an associate, bachelor or graduate degree. Most respondents (66.8%) reported a monthly income of 4,000 Turkish Liras (approximately 550 US $) or less. Approximately 30% of the participants were employed full time, whereas 30.1% were housewives, students and retirees.

Table 1. Demographic Profile

	Gender			Marital Status	
	Frequency	**Percent**		**Frequency**	**Percent**
Female	309	54.0	Single	268	46.9
Male	263	46.0	Married	304	53.1
Total	572	100.0	Total	572	100.0

	Age			Occupation	
	Frequency	**Percent**		**Frequency**	**Percent**
18–25	103	18.0	Housewife	61	11.1
26–35	153	26.7	Student – Unemployed	54	9.8
36–45	153	26.7	Retired	48	8.7
46–55	82	14.3	Public Officer	48	8.7
55–65	69	12.1	Private sector paid employee	213	38.6
65+	12	2.1	Self–Employed, employer	128	23.2
Total	572	100.0	Total	552	100.0

	Monthly Income*			Education	
	Frequency	**Percent**		**Frequency**	**Percent**
2000 TL or less	105	21.3	Primary or less	40	7.0
2001 – 4000 TRY	224	45.5	Secondary and high school	222	38.8
4001 – 6000 TRY	84	17.1	Associate degree, undergraduate, graduate	310	54.2
6001 TRY or more	79	16.1			
Total	492	100.0	Total	572	100.0

* For the data collection period, 1 US dollar was approximately 8.12 TL (in average) (Central Bank of Türkiye, n.d.)
Source: Own Elaboration

The proposed model was tested utilizing a three-step process. First, an exploratory factor analysis (EFA) was performed on 256 questionnaires to test the reliability and construct validity of the scales adopted from different studies. Afterwards, a confirmatory factor analysis (CFA) was performed to assess the suitability of the scales with the study model on 316 responses (Hair et al., 2014). Finally, the relationships constructed within the model were tested using structural equation modeling (SEM).

3.2.1 Explanatory and Confirmatory Factor Analyses

In the EFA, the criteria that communalities of 0.50 or above, eigenvalue of 1.0 and a factor loading of 0.60 or more (Hair et al., 2014) were used to explore the underlying dimensions. The results of the EFA revealed a clear 7-factor model that explained 80.21% of the total variance. Communalities varied between 0.654 and 0.954, the Kaiser-Meyer-Olkin (KMO) value was 0.74 (> 0.5), and the p-value of Bartlett's Test of Sphericity was significant (p< 0.001). Moreover, in the CFA, the reliability and validity of the model were assessed via Cronbach's Alpha (CA), Composite Reliabilities (CR), standardized factor loadings, Average Variance Extracted (AVE), correlations between factors, and square roots AVE.

As presented in Table 2, all CA values were higher than 0.70 (ranging between 0.83 and 0.95), and CR values ranged between 0.83 and 0.91. All factor loadings were greater than 0.60 and AVEs ranged from 0.62 to 0.83. The highest correlation was only 0.42, and all square root AVEs were much higher than the corresponded factor correlations (Table 3). Therefore, the results indicated that the data were reliable, and had convergent and discriminatory validities. The values of Chi-square and df were 264.115 and 153

respectively, so the χ^2/df was 1.73. Furthermore, the values of other fit indices were comparative fit index (CFI)=0.960; Tucker–Lewis index (TLI)=0.950; root mean square error of approximation (RMSEA)=0.048 and standardized root mean square residual (SRMR)=0.044, which indicated that the items fitted the 7-factor measurement model well.

Table 2. Results of the Factor Analyses (EFA and CFA)

	Factor Loadings	Cronbach's α	Eigenvalue	Explained Variance	AVE	CR
Economic Benefits (ECB)		0.833	2.316	9.65	0.62	0.83
ECB1: Tourism contributes to the increase of state tax revenues	0.654					
ECB2: Tourism increases the income of local people who live in Bodrum	0.902					
ECB3: Tourism creates most of the businesses in Bodrum	0.793					
Environmental Benefits (ENB)		0.918	1.843	7.68	0.83	0.91
ENB1: Tourism contributes to the preservation of traditional architecture and historic buildings	0.954					
ENB2: Tourism contributes to the conservation and flourishing of the natural environment	0.864					
Socio-Cultural Benefits (SCB)		0.913	3.797	15.82	0.66	0.90
SCB1: Thanks to tourism, I learn more about Bodrum culture	0.723					
SCB2: Tourism provides cultural interaction between local people and tourists	0.812					
SCB3: Tourism contributes to better understanding between people	0.887					
SCB4: Tourism preserves and develops local culture	0.909					
SCB5: Tourism improves women's status in family	0.696					
Happiness (H)		0.883	3.039	12.66	0.64	0.88
H1: I am generally happy in my family life.	0.737					
H2: I have a group of friends that make me happy.	0.733					
H3: I am a person at peace with myself.	0.892					
H4: Usually, I think I'm happy	0.825					
Quality of Life (QoL)		0.882	2.477	1.32	0.65	0.85
QoL1: I am satisfied with the quality and variety of public services (health, safety, transportation, etc.) in Bodrum	0.766					
QoL2: I am satisfied with the number and quality of entertainment and leisure facilities in Bodrum	0.934					
QoL3: I am satisfied with the socialization opportunities in Bodrum	0.698					
Life Satisfaction (LS)		0.828	2.313	9.64	0.67	0.86
LS1: My life conditions are satisfactory	0.755					
LS2: Up to now, I've got most of the things I wanted	0.902					
LS3: In general, I am happy with quality of my life	0.794					
Risk Perception of COVID-19 (COV)		0.945	3.466	14.44	0.67	0.89
COV1: Increase in tourism movements will threaten public health because of the COVID-19 pandemic.	0.692					
COV2: Increase in tourism movements will make the control of the pandemic and patient follow-up difficult.	0.858					

COV3: Increase in tourism movements will cause problems in accessing protective equipment (mask, disinfectant, etc.).	0.858
COV4: Increase in tourism movements will cause medical problems (access to vaccination, treatment, etc.).	0.841

Source: Own Elaboration

Table 3. Correlations between Factor and Square Root of AVEs

Factors	ECB	ENB	SCB	H	QoL	LS	COV
ECB	(.790)						
ENB	**-.186**	(.910)					
SCB	.120	**.200**	(.810)				
H	**.179**	.045	.043	(.799)			
QoL	-.023	**.199**	**.171**	-.002	(.805)		
LS	.077	-.037	.003	**.358**	**.421**	(.819)	
COV	-.013	-.006	-.065	-.012	-.028	-.023	(.815)

Notes: Numbers in parentheses are square roots of AVE; Correlations in bold are significant at $p < 0.5$ level.
Source: Own Elaboration

3.2.2 Evaluation of Structural Model

A Structural Equation Modeling (SEM) approach was utilized with the Maximum likelihood method of estimation to test the proposed relationships. The fit indices of the proposed model (χ^2/df= 1.75 (Chi-square=274.105; df=157), CFI=0.958; TLI=0.949; RMSEA=0.049 and SRMR=0.050) indicated that the proposed structural model was acceptable and supported by the data.

The results of SEM (Table 4 and Figure 2) indicated that only economic benefits have significant influence on happiness, which provided support for hypotheses H_{1a}. However, the results did not support H_{1b}, and H_{1c}. As expected, economic benefits increased happiness; however, the sway was not that strong. On the other hand, environmental and socio-cultural benefits were influential on quality of life, but only slightly, providing support for H_{2b} and H_{2c}. However, H_{2a} was not supported, as economic benefits did not have any significant effect on quality of life.

Findings show that tourism in mature destinations has mild effects on residents' happiness and quality of life. These results may be due to the life cycle stage of the study site. Tourism is the main economic activity in most mature destinations, as in the study area (Bodrum Chamber of Commerce, 2007) and economic benefits increase happiness, since it helps local people meet their needs and support their families.

Both H_{3a} and H_{3b} were supported since happiness and quality of life were found to be critical determinants of life satisfaction. Moreover, quality of life and happiness moderately influenced life satisfaction. These findings suggest that resident form their life satisfaction perceptions after a careful cognitive and emotional evaluations.

Furthermore, the R-square values indicated that economic, environmental, and socio-cultural benefits predicted 5% (p=.07) and 6% (p=.04) variance in happiness and quality of life, respectively. This result suggested that perceived benefits of tourism significantly affected residents' quality of life and happiness perceptions. In addition, the result of this study revealed that happiness and quality of life explained 36% (p< .001) variance in life satisfaction, pointing to a salient role of people's life evaluation in influencing their life satisfaction.

Table 4. Results of SEM (Path Coefficient)

			Path Coefficient	S.E.	Est./S.E.	*p*-Value
ECB	→	Happiness	.221	.102	2.179	*.029***
ENB	→	Happiness	.058	.072	.796	.426
SCB	→	Happiness	.021	.057	.367	.713
ECB	→	QoL	.015	.071	.206	.837
ENB	→	QoL	.168	.074	2.262	*.024***
SCB	→	QoL	.128	.069	1.843	*.065**
Happiness	→	LS	.410	.074	5.517	*.000***
QOL	→	LS	.430	.060	7.191	*.000***

** Significant at *p*=.05; * Significant at *p*=.1
Source: Own Elaboration

Figure 2. Results of SEM Model

Note: The relationships shown with straight line are statistically significant (*: significant at *p*= .1 level; **: significant at *p*= .05 level) and the dashed lines are not.
Source: Own Elaboration

Multi-group SEM analysis was used to test the moderating effects of risk perception of COVID-19 on the effects of tourism on happiness and quality of life. Multigroup analysis ensures that "observed differences in structural relationships across conditions are uncontaminated by neither measurement errors nor measurement differences" and is "one of the common methods" to estimate the group differences (Her et al., 2019, p. 141). Based on the level of perceived risk posed by the COVID-19 pandemic, participants were categorized into three groups: high, moderate and low. Participants with high and low level of risk perception were classified as 'high' (n=121) and 'low' (n=118), respectively, and were used in data analysis.

When the perceived risk of pandemic on the destination is low, no significant moderating effects were found in the relationship between benefits of tourism and either quality of life, or happiness (Table 5). However, in the high-risk perception group, the relationships between economic benefits and happiness and between socio-cultural benefits and quality of life were boosted.

These findings indicated that the contribution of economic benefits to happiness increases when the perceived risk of COVID-19 pandemic on the destination is high. This finding suggests that individuals with high risk perception of COVID-19 pandemic on the destination place more emphasis on the economic benefits because economic development due to tourism mitigates the social costs of COVID-19 pandemics. In other words, people with higher perceived risk of COVID-19 pandemic on the destination view tourism as an economic activity that can minimize the economic strains of the epidemic. Because the local economy is heavily dependent upon tourism, the continuation of economic life depends on the continuation of tourism activities.

Moreover, though the perceived risk of COVID-19 pandemic on the destination does not affect the relationship between environmental benefits and quality of life, the socio-cultural benefits reflect positively on the quality of life when risk perception is higher. These findings suggest that given that the pandemic limits social activities and can spread rapidly among people; individuals with high perceived risk of COVID-19 pandemic on the destination are more concerned about the wellbeing of the community.

Therefore, H_4 and H_5 are both partially supported since they both posit positive impacts of the perceived risk of COVID-19 pandemic on the destination in the relationship between tourism benefits and happiness and quality of life. These findings indicate that the perceived risk of COVID-19 pandemic on the destination affects individuals' both affective and cognitive evaluations, therefore, it serves as an effective factor in decision-making. Local residents who perceive the COVID-19 pandemic posing higher levels of risks on the destination are more likely to value tourism development.

Table 5. Moderation Effects of Risk Perception of COVID-19

			Path Coefficient	S.E.	Est./S.E.	*p*-Value	Risk Perception of COVID-19
ECB	→	Happiness	-.129	.108	-1.194	.232	Low
			.429	.194	2.209	*.027*	*High*
ENB	→	QoL	.181	.111	1.632	.103	Low
			.079	.100	.793	.428	High
SCB	→	QoL	.113	.113	1.004	.315	Low
			.260	.118	2.200	*.028*	*High*

Source: Own Elaboration

4. Conclusion

This study examined the relationships between perceptions of tourism impacts and wellbeing concepts and the moderating role of COVID-19 risk perception on these relationships. Contradictory to some studies (Ozturk et al., 2015; Yu et al., 2016; Rivera et al., 2016) claiming that socio-cultural and environmental impacts can also influence happiness, results of this study point out that only economic benefits of tourism improves happiness of individuals, as Bimonte & Faralla (2016) and Movono et al. (2005) argue. This may be explained by the fact that the study site is a mature tourism destination, and its economy is mainly based on tourism (Bodrum Chamber of Commerce, 2007). Since the main income source of households is tourism, the economic benefits on residents' livelihood become more prominent and result in increases in happiness.

Moreover, although Bimonte et al. (2019) state that tourism decreases the quality of life, findings of this study indicate that, environmental and social benefits improve locals' quality of life, which is consistent with findings reported by Andereck & Nyaupane (2011), Kim et al. (2013) and Woo et al. (2015). On the other hand, findings of this study are inconsistent with several previous studies (Uysal et al., 2016; Eslami et al., 2019), and indicate no significant relationships between economic benefits and quality of life. These findings might be explained by the fact that, compared to the residents of developing destinations (Ozturk et al., 2015), residents of mature tourism destinations understand the importance of tourism for the destination economy and for their financial wellbeing, therefore they mainly focus on helping the destination stay competitive. However, findings further suggest that the environmental and social benefits are still valued by locals since they play critical roles in their life quality. Thus, socio-cultural and environmental factors reflect more positively on the quality of life of the local residents.

Findings of the study also clearly suggest that life satisfaction is positively related to happiness and quality of life. These findings are in line with the literature (Selim, 2008; Park et al., 2009; Garrido et al., 2013) and indicate that life satisfaction is heavily influenced by both cognitive and emotional evaluations.

Findings of the study suggest that locals' perception of the level of risk the COVID-19 pandemic poses on the destination moderates the effects of tourism impacts on both emotional (happiness) and cognitive

dimensions (quality of life). Findings also suggest that those who perceive the COVID-19 pandemic posing high risk to the destination are more sensitive to the effects of tourism impacts on their wellbeing. These findings are consistent with the results reported by Garau-Vadell et al. (2018), Kamata (2022), and Vegara-Ferri, Pallarés & Angosto (2021), and reveal that those who perceive the COVID-19 pandemic posing high risk to the destination perceive tourism more positively. Particularly, they view the economic benefits making significant contribution to their own happiness, and the socio-cultural benefits contributing to own quality of life. More specifically, as the level of perceived risk of the COVID-19 pandemic on the destination increases, so do the influence of the economic benefits on happiness and of the sociocultural benefits on quality of life.

4.1 Theoretical Contributions

While the effects of tourism on residents' happiness, quality of life and life satisfaction have received significant attention form scholars, this study makes important theoretical contributions to the knowledge. First, it tests the wellbeing concepts in a holistic model, and attests evidence that happiness is related to personal issues such as financial and economic gains while the perception of quality of life is related to social factors, and that life satisfaction is a synthesis and result of satisfaction/dissatisfaction with interrelated life domains (Chen & Li, 2018; Hartwell et al., 2018). Therefore, by exerting that happiness, quality of life and life satisfaction are related but different and non-interchangeable concepts, this study contributes to the knowledge on comprehensiveness of the wellbeing concept.

Second, this study investigating an under-researched topic, namely the impact of COVID-19 risk perceptions on wellbeing of local residents in tourism destinations, contributes to the literature. Findings of the study suggest that risk perception of COVID-19 on destination serves as a 'moderator' for subjective evaluations and influences the perceptions of both individual and societal concerns. Findings suggest that perceived risk of the COVID-19 on the destination creates an emotional and cognitive connection with the destination and community. People, who perceive the risk of COVID-19 as high, place more emphasis on the preservation and improvement of the economic and social structure of the destination.

Third, examining how local residents' risk perceptions affect the relationship between tourism impact perceptions and wellbeing, it provides additional support for the appropriateness of the use of PMT in tourism context. The results indicate that as the risk posed by the COVID-19 pandemic on the destination increases among the local people, locals' perception of the vital importance of the tourism industry for the destination and community's financial wellbeing increases as well. The increased impact of socio-cultural benefits on quality of life suggests that the risk posed by the pandemic makes residents realize the socio-cultural benefits provided by tourism activities to local community.

4.2 Practical Implications

This study also provides useful managerial implications by shedding some light on how residents' perceptions of the risk posed by the COVID-19 pandemic can influence and amplify the effects of tourism impacts on locals' happiness, quality of life, and life satisfaction.

Results reveal the necessity to focus on the socio-economic consequences of the COVID-19 pandemic, and clearly suggest that locals care about their destination and their community. They also clearly emphasize the opportunities COVID-19 pandemic offers for improving locals' support for tourism development. Taking advantage of these opportunities can help destination managers maximize the benefits of tourism on residents' quality of life perceptions and their happiness.

The World Health Organization draws attention to the fact that, in the new normal era, governments should take a leadership role in public communication during the pandemic (WHO, 2020). Thus, communication between the stakeholders of the tourism sector should be improved (Zhang et al., 2021). Therefore, local governments should develop policies and practices to access and communicate accurate information quickly to make visitors and local residents feel safe. Moreover, local governments and the tourism industry can help reduce the risk perception of the local people by ensuring that tourists comply with the anti-COVID-19 measures. They should utilize social media channels, addition to traditional communication channels, to provide reliable and up-to-date information (Nazneen et al., 2022) to prevent the

spread of false information about COVID-19 cases, and to reduce the tension in communities (Hsieh et al., 2021). Universities and research centers may be included in the information processes to increase the reliability and the effectiveness of the messages (Chiappa et al., 2018).

Furthermore, local governments may carry out activities/programs to encourage residents to shop from local businesses, to overcome the economic problems caused by the COVID-19 pandemic (Kim et al., 2022). Moreover, providing economic support to those who are more economically vulnerable can help reduce financial and social pressure on the community (Wong et al., 2021). In addition, policies to mitigate the negative impacts of changes in tourism demand due to the pandemic should prioritize local communities' needs and wants. The decision makers and planners should focus on diversifying tourism offerings in medium and long-term. They should also develop policies and incentives to ensure that locals are active in tourism businesses, not only out-of-town investors (Higgins-Desbiolles, 2020).

The study, like many other studies, argues that destination managers and planners should not only focus on the economic returns and losses but also develop strategies for socio-cultural and environmental issues. They should develop and implement action plans for the restoration of historical buildings, environmental conservation, and preservation and revitalization of local culture (Yu et al., 2016). Increasing the quality and quantity of recreation areas that can be used by both tourists and locals, improving the quality of roads, sanitation facilities and environmental protection and management (Eslami et al., 2019) can also have significant impacts on happiness, quality of life and consequently life satisfaction. Moreover, in post-COVID era, activities and/or festivals should be organized to create socialization opportunities, and therefore to reduce social isolation caused by COVID-19. Such activities, beyond contributing to the reduction of people's stress, can also contribute to generation of creative ideas for revitalizing the industry.

This study stresses also the importance of local residents' involvement in planning and strategy development activities for reducing the effects of the pandemic on the destination's tourism industry (Higgins-Desbiolles, 2020). In addition to traditional methods such as meetings and focus group discussions, local governments should use the latest communication technologies and social media to motivate local communities to participate more effectively in the planning processes. So that the views and expectations of diverse and large segments of society may be reflected in planning studies (Chiappa et al., 2018). Furthermore, community participation can reflect positively on happiness, quality of life and, in return, life satisfaction, and may help increase tourism satisfaction of locals, and therefore, offer opportunities for sustainable development (Kim et al., 2013).

4.3 Limitations

As in every study, this study has several limitations, which provide future research opportunities. Firstly, the data were collected in a single destination and therefore its results cannot be generalized. Furthermore, the data were compiled over a relatively short period during the pandemic, which may have resulted in sampling bias. Thus, the relationships examined in this study should be re-examined after the pandemic. Moreover, the study was conducted in a mature tourism destination where the main economic activity is tourism. Thus, it is strongly suggested that future studies examine the proposed relationships in destinations that are at different stages in their life cycle. The use of only benefits of tourism is also another limitation of this study. Studies examining the effects of both positive and negative impacts of tourism on SWB in the context of COVID-19 risk perception can contribute to the literature. In addition, the demographic and psychological characteristics of residents were not considered in this study. Future studies should consider those variables. Finally, as suggested by Suess et al. (2018), studies that utilize both the objective and subjective measures of wellbeing may benefit the literature.

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Delineating the Influence of Social Media Use on Sustainable Rural Tourism: An Application of TPB with Place Emotion

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ABSTRACT

The present study unveils the factors affecting the potential behaviour of tourists to visit rural destinations. It also intends to measure the influence of the theory of planned behaviour (TPB) on tourists' intention to travel to rural destinations, incorporating two additional constructs: social media use and place emotion. Moreover, this study unwraps the most influential factor affecting tourists' potential behaviour to visit rural destinations. An online questionnaire was utilised to gather the data, and 415 complete and usable responses were included in the analysis. The population of the survey includes Indian tourists. SPSS 20 and AMOS 22.0 software were used to analyse the data. The hypothesised model was tested using structural equation modeling (SEM). The empirical results reveal that attitude towards rural tourism, subjective norm, social media use and place emotion significantly and positively influence intention to travel to rural destinations, while perceived behavioural control does not. The effect of social media use was found to be the most substantial among all the factors. The proposed model explains approximately 50% of the variance in the intention to visit rural destinations. Several theoretical and practical implications can be delineated from the findings of the present study.

KEYWORDS

Theory of Planned Behaviour, Rural Tourism, Sustainable Tourism, Social Media Use, Place Emotion, Behavioural Intention.

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1. Introduction

The popularity of social media and its usage is increasing exponentially (Kumar et al., 2020), and it has become an integral part of the travel and tourism industry (Kumar et al., 2020; Azhar & Akhtar, 2020; Liao et al., 2021; Ansari et al., 2022). In recent years, social media has become the preeminent platform for exchanging travel, tourism, and hospitality-related information (Chu & Kim, 2018; Azhar et al., 2022). It directly affects tourism, particularly how travellers obtain and use tourism information (Xiang et al., 2015; Jamal et al., 2019; Kumar et al., 2020) and alters the behaviour of tourists and businesses (Jamal et al., 2019; Jacobsen & Munar, 2012). Since tourism is an informative-intensive industry and social media usage is also increasing rapidly, it has become quite relevant to study the growing significance of social media in the tourism industry. Despite the fact that social media is becoming increasingly popular in the travel and tourism industry, there are still few studies that have measured the influence of social media on tourism sustainability, mainly rural tourism (Joo et al., 2020). Numerous studies have discussed social media and its impact on tourist behaviour (Xiang & Gretzel, 2010; Fons et al., 2011; Milano et al., 2011; Leung et al., 2013; Azhar et al., 2022). But very few studies have been carried out to measure the influence of social media usage on sustainable tourism (Joo et al., 2020). Therefore, the present study fills this void by measuring the influence of social media usage on sustainable tourism, more specifically, rural tourism.

In addition to social media, place emotion is also a crucial component in studying tourists' behavioural intention (Qiong & Zhao, 2016; Zhang & Wang, 2019). The idea of "place emotion," central to the study of environmental psychology, refers to the strong feelings of attachment and personal identification that people experience in relation to certain physical locations (Williams & Vaske, 2003). There is more to the idea of place than just its physical location; it is also a social creation that people invest with their own unique associations of meaning and value (Zhou et al., 2014). Tourists develop a personal connection to a destination (termed a "place attachment") when they associate favourable emotions with their experiences while being there. Since there seems to be no distinction between "place attachment" and "place emotion" (Halpenny, 2010; Zhou et al., 2014), "place emotion" has been used in the present study. Some previous studies have incorporated place emotion with the TPB model (Zhou et al., 2014; Zhang et al., 2017; Zhang & Wang, 2019). To the best of the researchers' knowledge, no study has been conducted in the Indian context that has measured the integrated influence of the TPB model with social media use and place emotion on tourists' intention in rural tourism. Moreover, tourism studies need to consider how tourists feel about a place. Therefore, this research intends to discuss the significance of determinants that influence the potential behaviour of tourists using the TPB model, taking social media use and place emotion as additional constructs.

Tourism is one of the most vibrant, dynamic and rapidly expanding industries globally (Jena & Dwivedi, 2021; González-Padilla, 2022). According to World Travel and Tourism Council (WTTC), the travel and tourism industry contributed 10.3 % to the global GDP in 2019. Moreover, the tourism industry creates nearly 10% of total employment worldwide (Market Width, 2019). The Indian tourism industry has emerged as one of the major contributors to the service sectors. WTTC ranked India 10th out of 185 countries in terms of total contribution to GDP from the travel and tourism industry in 2019 (IBEF, 2021). According to the Indian Brand Equity Foundation (IBEF, 2021), "in FY20, 39 million jobs were created in the tourism sector in India, which was 8.0% of the total employment in the country". It is estimated that "by 2029, India's tourism sector is expected to grow 6.7% to reach Rs. 35 trillion (US$ 488 billion) and accounting for 9.2% of the total economy" (IBEF, 2021). In recent years, it has been realised that the Indian tourism sector has tremendous potential that might be tapped as a strategy for rural development. According to the 2011 census, a large part of the country's population (around 70%) lives in rural areas (Census of India, 2011). One may get a glimpse of the "real India" in the country's rural areas. Therefore, the Indian rural diaspora has ample potential to be promoted as rural tourism, and it has been recognised as a tool for rural rehabilitation (Jena & Dwivedi, 2021). Promoting rural tourism is crucial for creating employment, job opportunities and economic development of rural areas (Amaral, 2019). As prime minister of India has urged to be self-reliant under the call of "Aatmanirbhar Bharat", adopting a public stance in support of local products (vocal for local). Hence, developing and promoting rural tourism has become an important driver of self-reliant (Aatmanirbhar Bharat). The rural areas are also important since they preserve the country's

history, traditions, arts, and agricultural practices (Amaral, 2019). Rural tourism in India is believed an important driver to promote sustainable development. The research on rural tourism in India is still in the nascent stage. Hence, the present study bridges this gap by focusing on tourists' intention to travel rural destinations and explores social media use in the promotion of rural tourism.

The TPB model (Ajzen, 1991) provides an adequate framework to describe the work related to social media usage, as the model claims that behaviour is intended and preceded by intention (van Zoonen et al., 2014; Sujood et al., 2022). TPB is the most widely used decision-making model that has been validated by previous researchers (van Zoonen et al., 2014; Narangajavana et al., 2017; Ali, 2018; Joo et al., 2020; Hamid & Azhar, 2021; Sujood et al., 2022; Azhar et al., 2022) in different contexts. Despite the fact that some researchers have incorporated the TPB model to investigate the process of decision-making in the backdrop of sustainable tourism (Jalilvand & Samiei, 2012; Meng & Choi, 2016; Sujood et al., 2022), those studies have not stressed the functionality of social media use in rural tourism. Therefore, this study better understands and predicts tourists' potential behaviour to visit rural destinations and fills this gap by using an extended version of the TPB model by incorporating two additional constructs, viz., social media use and place emotion.

In 1987, the United Nations introduced the concept of sustainable development. Since then, the tourism industry has been increasingly concerned about sustainability (WCED, 1987). Therefore, sustainability has gained a lot of attention as a major issue in academia and industry. The decision-making process for sustainable tourism has been discussed in some previous studies (Kuo & Dai, 2012; Meng & Choi, 2016, Joo et al., 2020; Lampreia-Carvalho, 2021; Sujood et al., 2022). Still, there is a paucity of papers on the intention of tourists in the backdrop of sustainable tourism, specifically rural tourism. Therefore, the main objective of this research is to utilise the TPB model in order to assess the impact of social media and place emotion on rural tourism.

This study contributes to the discussion of sustainability, social media and place emotion by looking at the travel intentions to rural destinations through the lens of TPB in the Indian context. The originality of the present study lies in the fact that no single study has been conducted in the Indian context that has measured the integrated influence of the TPB model with social media use and place emotion on tourists' intention in rural tourism. To predict human intentions and behaviours, the TPB is often regarded as a very successful method (Ajzen, 1991), and its applicability varies to a wide range of fields (Juschten et al., 2019; Nowacki et al., 2021; Abdelwahed et al., 2022; Azhar et al., 2022; Zheng et al., 2022). Keeping in view the wide applicability and adaptability of the TPB model, this model has been incorporated in the present study to measure tourists' intention to visit rural destinations.

The whole paper has been divided into various sections and subsections. The very first section opens with introduction followed by an extensive literature review in which the theory of planned behaviour and additional constructs undertaken in the study have been explained. Hypotheses have also been postulated in the same section. In the next section, the adopted methodology has been discussed in detail, which consists on research instrument, data collection and data analysis. The next section comprises results with various subsections such as the demographic profile of the respondents, descriptive statistics, measurement model, structure model and hypotheses testing. In the subsequent sections, a detailed discussion has been presented, followed by conclusion, theoretical and practical implications, limitations and future research directions.

2. Literature Review and Hypotheses Development

The TPB model was first developed by Ajzen (1991); since then, it has been used to understand human behaviour in different contexts and has captivated tourism researchers' attention to understand and predict tourist behaviour. Understanding tourist behaviour is important because it reduces unnecessary marketing and promotional cost and contributes significantly to the profitability of the tourism business (Wang, 2004; Alegre & Juaneda, 2006; Hsu et al., 2008; Kim et al., 2013). As per the TPB model, human behaviour is led by three types of convictions: behavioural, normative and subjective (van Zoonen et al., 2014). Behavioural convictions describe attitude (ATT), normative describe subjective norm (SN), and subjective convictions describe perceived behavioural control (PBC) (van Zoonen et al., 2014). The TPB model states

that these three constructs, ATT, SN and PBC, determine behavioural intention (Ajzen, 1991). The TPB model has been validated and tested through considerable research and implementation in the tourism industry (Quintal et al., 2010; Jalilvand & Samiei, 2012). According to Ajzen (1991), the TPB model can be used in order to understand the decision-making process in the travel and tourism industry. Since then, tourism scholars have been using the TPB model to predict tourist behaviour (Joo et al., 2020).

2.1 Attitude and Travel Intention

Attitude (ATT) towards behaviour has become a popular issue in academic research because of its powerful reflection on human emotional states in the decision-making process (Hamid & Mohamad, 2019). The degree to which individuals have a favourable or unfavourable appraisal when they undertake given conduct has been defined as an attitude toward behaviour (Ajzen, 1991; Tonglet et al., 2004; Han et al., 2009; Ho et al., 2020). In TPB, there is a significant association between attitude and behavioural intention (Davis, 1989; Ajzen, 1991). According to Fishbein and Ajzen (1975), attitude is "an individual's positive or negative feelings (evaluative affect) about performing the target behaviour". The higher the level of a positive attitude exhibited by an individual, the more likely that person will engage in that action (Verma & Chandra, 2018). Attitude towards behaviour can be equated to evaluation factors such as understanding emotional responses, physiological arousal, and expressiveness originating from a tourist experience in tourism research (Patwary & Rashid, 2016). Some prior studies have validated a significant relationship between attitude and tourist intention (Pina & Delfa, 2005; Maestro et al., 2007; Loureiro, 2014; Joo et al., 2020, Hamid & Azhar, 2021). Therefore, on the basis of evidence found in previous studies, the forthcoming supposition is postulated for the present study:

H1. Attitude towards rural tourism positively influences tourists' intention to travel to rural destinations.

2.2 Subjective Norm and Travel Intention

Subjective norm (SN) has been extensively studied because of its power to impact tourist intention (Hamid & Mohamad, 2019). It is another influential component in the TPB model to predict behavioural intention and is explained as the viewpoint of people who play a predominant role in the life of an individual (Hamid & Azhar, 2021) and have a direct impact on his/her decision making (Verma & Chandra, 2018). The term subjective norm is termed as "the perceived social pressure to perform or not to perform the behaviour" (Ajzen, 1991). Mathieson (1991) expressed that "subjective norm reflects the perceived opinions of referent others. A 'referent other' is a person or group whose beliefs may be important to the individual" (Mathieson, 1991, p.176). Fishbein and Ajzen (1975) gave another very important definition which is "the person's perception that most people who are important to him/her think he/she should or should not perform the behaviour in question". There are many evidences that support subjective norm as an essential element influencing tourist intention to visit a place, indicating the significance of reference group influence in travel behaviour (Jalilvand & Samiei, 2012; Kaushik et al., 2015; Soliman, 2019; Joo et al., 2020; Hamid & Azhar, 2021; Sujood et al., 2022; Azhar et al., 2022). Therefore, on the basis of evidence found in previous studies, the forthcoming supposition is postulated for the present study:

H2. Subjective norm positively influences tourists' intention to travel to rural destinations.

2.3 Perceived Behavioural Control and Travel Intention

Perceived behavioural control (PBC) denotes the understanding of how easy or difficult an activity is to conduct (Seow et al., 2017; Japutra et al., 2019; Hamid & Mohamad, 2019). It is the final element in the TPB model and a very strong predictor of behavioural intention (Verma & Chandra, 2018). Ajzen (1991) defined PBC as "the perceived ease or difficulty of performing the behaviour". In the words of Ajzen and Madden (1986), PBC is defined as "perceived behavioural control refers to the individual's perceptions of the presence or absence of requisite resources and opportunities". Perceived behavioural control examines how well an individual can handle variables that may allow or limit the behaviour necessary to address a certain circumstance (Verma & Chandra, 2018). Some previous studies have identified a range of restrictions

or impediments that prevent tourists from travelling, such as distance, language, expense, safety, familiarity, and government rules (Han et al., 2019; Soliman, 2019). Therefore, on the basis of evidence found in previous studies, the forthcoming supposition is postulated for the present study:

H3. Perceived behavioural control positively influences tourists' intention to travel to rural destinations.

2.4 Social Media Use and Travel Intention

Social media plays a substantial role in the field of online tourism when it comes to designing travel plans (Xiang & Gretzel, 2010; Azhar et al., 2022). It allows travellers to express their notions and assists interactions with each other in order to obtain or spread travel-related information (Wyles et al., 2019). This opportunity encourages community members or peers to share their thoughts, experiences, and viewpoints (Daugherty et al., 2008; Wyles et al., 2019). More importantly, a variety of online virtual communities have proven to be valuable resource information for sustainable behavioural change (Chung & Koo, 2015). The majority of rural tourism businesses are too small to invest in extensive promotion and marketing (Lane, 1994). However, small rural tourism businesses and tour destinations might get benefits from social media marketing (Joo et al., 2020). Some previous researches have shown that posts published on social media related to tourism has an important influence on tourists' behavioural intention (Narangajavana et al., 2017; Joo et al., 2020; Sultan et al., 2020; Azhar et al., 2022). Therefore, on the basis of evidence found in previous studies, the forthcoming supposition is postulated for the present study:

H4. Social media use positively influences tourists' intention to travel to rural destinations.

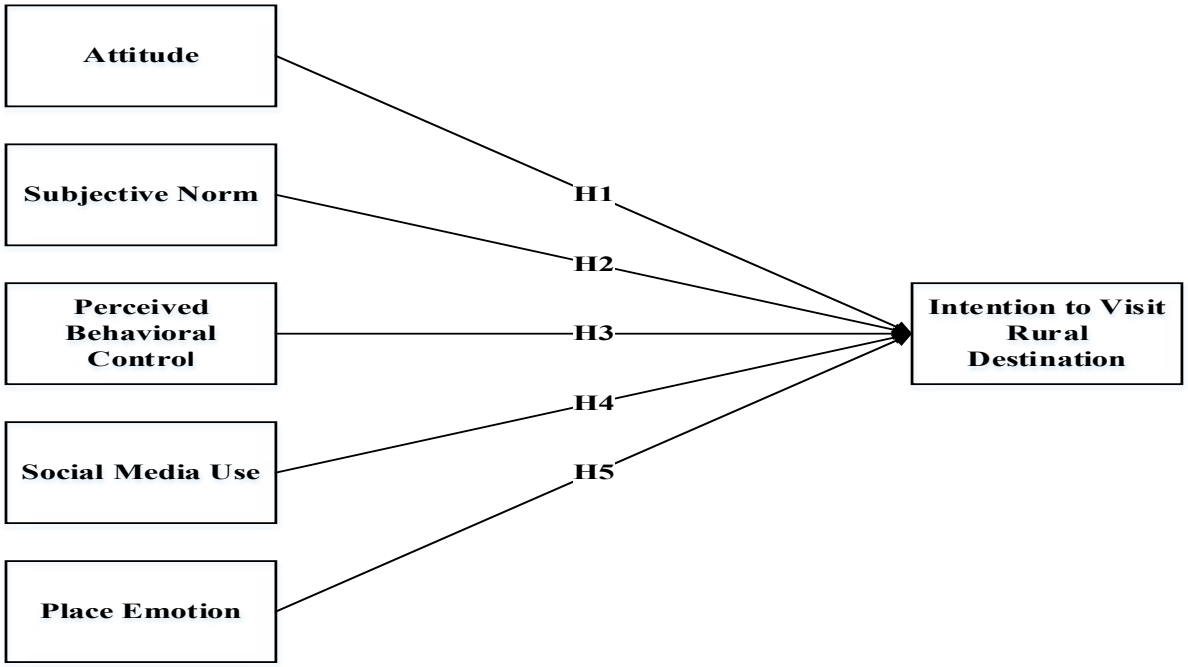
2.5 Place Emotion and Travel Intention

Humans are fundamentally comprised of emotion (Brave & Nass, 2007), which is formed innately from the neural system of the brain (Izard, 2013). On the other hand, place plays a significant role in the course of people's everyday lives since their perspectives and experiences are shaped in large part by their surrounding environment (Goodchild, 2011; Winter & Freksa, 2012; Goodchild, 2015). Since this is the case, it follows that a person's memories and emotions are strongly influenced by the place in which they were formed and visited (Kabachnik, 2012; Hasan et al., 2013; Scheider & Janowicz, 2014). To a large extent, visitors' place emotions play a pivotal role in the expression of tourists' self-image, sense of self-worth, and social identity through tourism activities (Ekinci et al., 2013; Zhou et al., 2014). Some prior studies (Zhou et al., 2014; Zhang et al., 2017) used emotion and emotional attachment as an additional construct with the TPB model to expand the theory and to interpret tourist behavioural decision-making process and intention to visit the place (Zhang & Wang, 2019). Hung and Petrick (2012) argued that the emotional relationship between a tourist and a place has a significant effect on the tourist's intention. Therefore, on the basis of evidence found in previous studies, the forthcoming supposition is postulated for the present study:

H5. Place emotion positively influences tourists' intention to travel to rural destinations.

The hypotheses can be presented as shown in Figure 1.

Figure 1. Theoretical Framework



Source: Own Elaboration

3. Methodology

3.1 Research Instrument

After reviewing comprehensive literature on behavioural intention, "a well-structured online questionnaire was developed based on a 7-point Likert scale (where 1= strongly disagree and 7= strongly agree)". According to Finstad (2010), "Seven-point Likert items have been shown to be more accurate, easier to use, and a better reflection of a respondent's true evaluation" (Finstad, 2010, p. 109). All the items used in the present study have been extracted from high-grade journals. Small adjustments have been made to the articulation and phrasing of the adapted items so that they could be made more relevant and suitable for the present study. The whole questionnaire was divided into two distinct parts. The first part consists of questions pertaining to "demographics of the respondents" i.e. "gender", "age", "marital status", "education", "occupation", and "monthly income (INR)". The second part consists of questionnaire pertaining to measuring the core constructs of the TPB along with two additional determinants, social media use and place emotion. Sources of all the measurement items are given in Table 1. For additional information, see Appendix A.

Table 1. Items used in Questionnaire

Construct	No. of Items	Sources
Attitude	4	Sparks and Pan (2009); Zhang et al. (2017)
Subjective Norm	4	Sparks and Pan (2009); Lin et al. (2012)
Perceived Behavioural Control	3	Sparks and Pan (2009); Han et al. (2010)
Behavioural Intention	4	Bagozzi et al. (2003); Fielding et al. (2008); Han et al. (2010)
Social Media Use	4	Ellison et al. (2007)
Place Emotion	4	Kyle et al. (2005); Zhang et al. (2017)

Source: Own Elaboration

3.2 Data Collection

Data was collected via an online questionnaire on a convenience basis. This is a fast and simple sampling procedure (Jager et al., 2017). Moreover, it is easy to contact a large number of audiences of similar interests using online surveys (Han & Hyun, 2017), which is otherwise tricky since finding and recognising them is challenging (Das & Tiwari, 2021). The present study is based on a cross-sectional approach. In this approach, "data is collected from different individuals at one point in time" (Setia, 2016). Before distributing the questionnaire, it was decided to perform a pilot test with 50 answers to ensure that the questions and language were straightforward and easy to comprehend for the responses. The pilot test rendered accurate and reliable results, and only after that the google form link was deployed on social media web pages of travel agencies from February 1 to March 31, 2022. Indian tourists, who follow the social media web pages of travel agencies, were the targeted respondents. There were 454 responses collected in total during the stipulated time period; nonetheless, missing data caused the authors to exclude 39 replies. In all, 415 valid responses were included in the study.

3.3 Data Analysis

In order to evaluate the data, SPSS 20 and AMOS 22.0 software were used. Initially, a confirmatory factor analysis (CFA) was carried out in order to investigate the validity and reliability of the measurement model. This was done in accordance with the two-step process outlined by Anderson and Gerbing (1988). One of the important reasons for using this procedure is that this CFA approach gives researchers a comprehensive set of tools for evaluating and updating theoretical models (Jöreskog, 1978; Bentler, 1983; Browne, 1984). After the measurement model was evaluated for adequacy, SEM was applied to check the appropriateness of the proposed model and tested the hypotheses. This is due to the fact that many crucial variables (latent variables) in social science are difficult to examine directly, such as attitude, behaviour, intention, motivation etc. (Sihombing & Pramono, 2021). Many indicators are used to measure these latent variables in SEM, which may contain measurement errors. Thus, SEM is the most crucial instrument for evaluating and understanding latent variable associations (Guo & Lee, 2007; Byrne, 2010; Deng et al., 2018) and is found suitable for the present study. The adequate sample size for using SEM should be 1:10 relative to the number of items in the questionnaire (Teo et al., 2013; Wolf et al., 2013; Hair et al., 2014). Comrey (1973) recommended a 300 sample size to run factor analysis. In addition to this, Gorsuch (1983) suggested that the participants-to-item ratio should be 5:1 or 10:1 to run factor analysis. In the present study total number of items is 23 against the 415 sample size. Participant-to-item ratio is far more than the recommended ratio. Therefore, the sample size of the present study meets the aforementioned requirement and is adequate enough to run factor analysis and SEM.

4. Results

4.1 Demographic Profile of Respondents

The present study was executed on potential Indian tourists. In the end, 415 responses were included in the final analysis, with males making up 54.2% of the sample and females 43.6%. A total of 86.3 per cent of the respondents are single and 65.5 per cent come from the age group of 18-27. As many as 53.2 per cent of respondents are undergraduates, and 86.3 per cent of the respondents reported their occupation as student. 38.3 per cent of respondents' monthly income is up to INR 15,000. For detailed information, see Table 2.

Table 2. Respondent's Profile (n=415)

Demographic Variable	Sub-Variable	Frequency	Per cent
Gender	Male	225	54.2
	Female	181	43.6
	Others	9	2.2
Age	Below 18	47	11.3
	18-27	272	65.5
	28-37	73	17.5
	38-47	10	2.5
	48-57	8	2.0
	Above 57	5	1.2
Marital Status	Single	358	86.3
	Married	42	10.0
	Others	15	3.7
Education	Undergraduate	221	53.2
	Graduate	27	6.5
	Postgraduate	54	13.0
	PhD	81	19.5
	Others	32	7.8
Occupation	Student	358	86.3
	Employed	26	6.3
	Retired	5	1.2
	Businessperson	5	1.2
	Others	21	5.0
Monthly Income (INR)	Upto 15,000	159	38.3
	15,001-30,000	91	21.9
	30,001-45,000	103	24.8
	45,001-60,000	17	4.1
	Above 60,000	45	11.0

Source: Primary data

4.2 Descriptive Statistics

The mean values of all the variables range from 4.2012 to 4.9180, and the standard deviations of all the variables fall between 1.18703 to 2.05991. The mean value of attitude (ATT) is the highest of all the variables (4.9180), and social media use (SM) has the lowest one (4.2012). Social media use (SM) induces the highest standard deviation (2.05991), while perceived behavioural control (PBC) shows the lowest one (1.18703). The detailed information is given in Table 3.

Table 3. Descriptive Statistics

Construct	Mean	SD
ATT	4.9180	1.42687
SN	4.5604	1.42145
PBC	4.8214	1.18703
BI	4.8926	1.77364
SM	4.2012	2.05991
PE	4.6770	1.53923

"ATT-Attitude, SN-Subjective Norm, PBC-Perceived Behavioural Control, BI-Behavioural Intention, SM-Social Media Use, PE- Place Emotion"
Source: Primary Data

4.3 Measurement Model

CFA was executed using AMOS 22 to confirm "the factor structure and validation of scale" (Brown, 2015). Conceptually, two kinds of validity were tested using CFA: "convergent and discriminant validity" (Joo et al., 2020). The degree to which different approaches to assessing the same concept provide consistent findings is called convergent validity. According to Khan et al. (2022), "convergent validity reveals whether or not the elements or components of a measure are substantially related to one another". For secure convergent validity, three conditions must be fulfilled (Fornell & Larcker, 1981). First, "the values of all the factor loadings should be greater than 0.70". Second, "the composite reliability (CR) should also be more than 0.70" (Cronbach, 1951; Bagozzi & Yi, 1988; Hair et al., 1998; Field, 2005) and last, "the value of average variance extracted (AVE) of each construct should never be less than 0.50" (Nunnally, 1978; Fornell & Larcker, 1981; Hair et al., 1998). In addition, Cronbach's alpha value should also exceed 0.70 (Nunnally, 1978). This study reached those limits: factor loading ranges between 0.796 to 0.938, CR ranges between 0.919 to 0.951, and AVE varies between 0.745 to 0.828. All these values meet the required threshold limit. Finally, the value of CR should be more than the value of AVE. Hence, all the above criteria of convergent validity were satisfied. In spite of this, the discriminant validity was evaluated by checking that AVE was larger than MSV. In this investigation, all of the latent variables had AVE values that were larger than their respective MSV values. For detailed information, see Table 4.

Table 4. Confirmatory Factor Analysis Statistics

	Items	Factor Loading	AVE	MSV	CR	Cronbach α
Attitude (ATT)			0.813	0.114	0.945	0.945
	ATT1	0.914				
	ATT2	0.900				
	ATT3	0.922				
	ATT4	0.917				
Subjective Norm (SN)			0.782	0.072	0.934	0.932
	SN1	0.924				
	SN2	0.926				
	SN3	0.938				
	SN4	0.796				
Perceived Behavioural Control (PBC)			0.783	0.072	0.915	0.915
	PBC1	0.888				
	PBC2	0.906				
	PBC3	0.906				
Behavioural Intention (BI)			0.794	0.341	0.939	0.939
	BI1	0.843				
	BI2	0.827				
	BI3	0.839				
	BI4	0.801				
Social Media Use (SM)			0.828	0.341	0.951	0.950
	SM1	0.895				
	SM2	0.894				
	SM3	0.871				
	SM4	0.886				
Place Emotion (PE)			0.745	0.134	0.919	0.918
	PE1	0.896				
	PE2	0.899				
	PE3	0.910				
	PE4	0.797				

Source: Primary Data

The extent to which measurements of several constructs are different from one another and do not have any connections with one another is referred to as "discriminant validity" (Campbell & Fiske, 1959; Khan et al., 2022). Discriminant validity exists if AVE exceeds the square of the coefficient in each dimension and shows its relation to other dimensions (Fornell & Larcker, 1981). According to the findings, the value of the AVEs for all of the associated constructs was more than the square of the correlation that existed between the constructs. As a result, the constructs in this study were found to have discriminant validity. For detailed information, see Table 5.

Table 5. Discriminant Validity

	ATT	SN	PBC	BI	SM	PE
ATT	**0.901**					
SN	0.134	**0.884**				
PBC	0.177	0.268	**0.885**			
BI	0.337	0.208	0.267	**0.891**		
SM	0.009	-0-066	0.142	0.584	**0.910**	
PE	0.048	0.076	0.239	0.366	0.319	**0.863**

*** $p < 0.001$; the square root of AVE diagonally in bold.
"ATT-Attitude, SN-Subjective Norm, PBC-Perceived Behavioural Control, BI-Behavioural Intention, SM-Social Media Use, PE-Place Emotion"
Source: Primary Data

4.4 Structure Model

In order to determine the reliability and validity of the constructs, the measurement model is used in the qualitative assessment process (Henseler et al., 2009). In light of this, the authors of this research began by conducting CFA to examine whether or not certain sets of variables had been preset to be correlated in the hypothesised manner. According to the early findings of the CFA, there was a satisfactory model fit with the indices listed below (Table 6):

Table 6. SEM Fit Indices

Fit Indices	Cut off Values	Model Study	References
Absolute Fit Measure			Kline (1998); Marsh and Hocevar (1985); Byrne (1994); Hair et al. (2006); Raykov and Marcoulides (2000); Arbuckle (2008); Harrington (2009); Meldrum (2010)
CMIN/DF	<3	2.480	
RMSEA	<0.05, <0.08	0.060	
Incremental Fit Measure			
CFI	>0.90	0.968	
TLI	>0.90	0.961	
GFI	>0.90	0.908	
NFI	>0.90	0.947	
IFI	>0.90	0.968	
RFI	>0.90	0.936	

Source: Primary data

CFA statistics generate a few different indexes. The Chi-square (CMIN/DF) sheds light on the number of observed and predicted covariance matrices, which is 2.480. According to Kline (1998), CMIN/DF<3 indicates an acceptable fit. The incremental fit measure was assessed using GFI = 0.908, TLI = 0.961, CFI = 0.968, NFI = 0.947, IFI= 0.968, RFI = 0.936, and RMSEA = 0.060. "The recommended value of such indices should be more than 0.90, but some more than 0.80 is also acceptable" (Benson & Fleishman, 1994; Curran et al., 1996; Moutinho & Hutcheson, 2014). According to MacCallum et al. (1996), RMSEA<0.08 shows a mediocre fit. For additional information, see Table 6.

4.5 Hypotheses Testing

Since the measurement model offered evidence of reliability and validity, those estimates were analysed to assess the hypothesised associations among the constructs in the conceptual model. The quality of the inner model is demonstrated by the standardised path coefficients and significance levels (Hair et al., 2012). SEM path analysis was used in order to evaluate the hypotheses that were given (H_1, H_2, H_3, H_4, H_5).

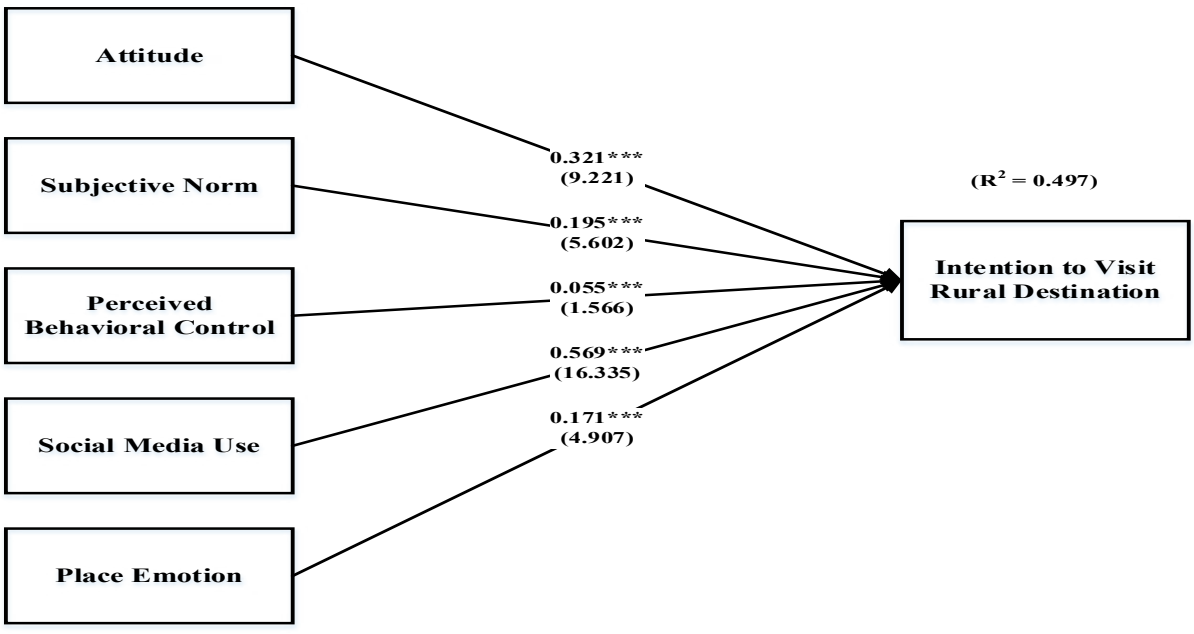
It is noticed that out of the five hypotheses, four hypotheses support the results and are thus accepted. Out of the core constructs of TPB, two constructs that are "ATT (β = 0.321, *t*-value= 9.221, *p* <0.001) and SN (β = 0.195, *t*-value= 5.602, *p* <0.001)", are found to be significant and thus positively influence behavioural intention to visit rural destinations. "PBC (β = 0.055, *t*-value= 1.566, *p* <0.117)" is not found significant and thus does not influence the behavioural intention to visit rural destinations. In addition, "social media use (β = 0.569, *t*-value= 16.335, *p* <0.001) and place emotion (β = 0.171, *t*-value= 4.907, *p* <0.001)" have a positive and significant influence on behavioural intention to visit rural destinations. Hence, four hypotheses, H_1, H_2, H_4 and H_5, support the evidence and are thus accepted, while hypothesis H_3 does not support the evidence and is thus not accepted. For more details, see Figure 2 and Table 7.

Table 7. Summarised Hypotheses

Relationship	Std. β	*t*-value	*p*-value	Results
BI ← ATT	0.321	9.221	***	Supported
BI ← SN	0.195	5.602	***	Supported
BI ← PBC	0.055	1.566	0.117	Not Supported
BI ← SM	0.569	16.335	***	Supported
BI ← PE	0.171	4.907	***	Supported

***Significant at the 0.01 level
Source: AMOS Output

Figure 2. Structural Model and Hypotheses



Source: Own Elaboration

The results reveal that out of the constructs under study, four constructs, viz. "attitude (ATT), subjective norm (SN), social media use (SM) and place emotion (PE)," are significant in predicting behavioural intention to visit rural destinations. These constructs explained approximately 50% (R^2 = 0.497) of the variance in the behavioural intention to visit rural destinations.

5. Discussion

The purpose of the present study was to measure the influence of the theory of planned behaviour (TPB) on tourists' intention to travel to rural destinations, incorporating two additional constructs: social media use and place emotion. In this study, the TPB model was used to examine the effect of social media use on the travel-related decision-making process. The TPB model has been tested and validated in many previous studies, including tourism research (Joo et al., 2020; Hamid & Azhar, 2021; Sujood et al., 2022; Azhar et al., 2022). However, the present study is distinct in its relevance because it uses the TPB model in studying rural tourism, leading to the revitalisation of rural areas and contributing substantially to sustainable tourism development. A model consisting of five hypotheses was developed on the basis of available literature. The proposed model was tested and interpreted using structural equation modeling (SEM) on AMOS 22.0 software. The final model of the study explains 50% of the variance in the tourists' intention to travel to rural destinations. According to Armitage and Conner (2001), "from a database of 185 independent studies published up to the end of 1997, the TPB accounted for 27% and 39% of the variance in behavior and intention, respectively", and the present study has a variance of 50% in the tourists' intention to travel to rural destinations. Hence, this study confirms the validity of the extended TPB model. The findings of this study reveal that hypotheses H_1, H_2, H_4 and H_5 support the evidence, while hypothesis H_3 does not. Out of the core components of the TPB, attitude towards rural tourism (β=0.321) and subjective norm (β=0.195) are found to have a significant and positive influence on intention to travel to rural destinations. These findings are in line with previous studies (Meng & Choi, 2016; Park et al., 2017; Joo et al., 2020; Ashraf et al., 2020; Nowacki et al., 2021; Hamid & Azhar, 2021; Sujood et al., 2022; Ng & Cheung, 2022). The reason for this could be that tourists choose to visit sustainable rural destinations for intrinsic reasons, knowing that their visit would be beneficial to themselves and the environment as well. Perceived behavioural control (β=0.055) is found not to be significant and thus does not influence intention to travel to rural destinations. This result is in align with the findings of previous studies (Liu et al., 2020; Sujood et al., 2022; Abdelwahed et al., 2022). The reason for this could be that being a developing nation, there are infrastructural flaws in Indian rural regions. The poor roadways and railways connectivity to rural areas create an obstacle to visiting rural India. The electricity and water supply in rural India is still facing challenges. Due to poor connectivity, lack of basic amenities and weak infrastructure, getting basic products and services in rural India is still problematic. These could be some possible reasons that might demotivate tourists from visiting rural destinations.

Social media use and place emotion were taken as additional constructs in the present study. Social media use (β=0.569) is found to be significant and thus positively influences intention to travel to rural destinations. This outcome is the opposite of Joo et al. (2020)' finding that shows an insignificant association between social media use and intention to travel to rural destinations. The reason for this could be that in recent years the usage of social media has accelerated exponentially, and its widespread reach and influence have grabbed the attention of travellers when it comes to taking travel-related decisions. Place emotion (β=0.171) is also found to be a significant predictor and thus positively influences intention to travel to rural destinations. This outcome is in accordance with Zhang and Wang (2019). Among all the constructs under study, social media use (β=0.569) came out as the strongest and most influential predictor of intention to travel to rural destination. Attitude towards rural tourism (β=0.321) is the second most influential predictor of intention to travel to rural destinations. Subjective norm and place emotion came out as the third and fourth most influential predictors of intention to travel to rural destinations.

6. Conclusion

Unlike the previous studies, the present study intended to examine the influence of social media use and place emotion on intention to visit rural destinations by incorporating the theory of planned behavior. The present study is distinct from previous studies in many ways. First, it has undertaken two additional constructs, viz. social media use and place emotion with the TPB model which increases the explanatory power of the model. Second, this study contributes to the discussion of sustainability, social media and place emotion by examining travel intentions to rural destinations through the lens of TPB, which is a distinct

combination of the constructs. Third, to the best of researchers' knowledge, no study has been conducted in the Indian context that has measured the integrated influence of the TPB model with social media use and place emotion on tourists' intention in rural tourism. Fourth, research on rural tourism in India is still in the nascent stage. Hence, the present study bridges this gap by focusing on tourists' intention to travel to rural destinations and explores social media use in the promotion of rural tourism.

With the use of social media, this research uncovered the factors that influence rural tourism decisions. Social media use and attitude are the strongest predictors that have a greater impact on tourists' intention to visit rural destinations, followed by subjective norm and place emotion, respectively. Consequently, it stands to reason that in order to contribute in the growth of sustainable tourism, marketers should place an emphasis on information related to social media use, attitude, subjective norm and place emotion. Rather than focusing just on the attractions of tourism destinations, marketers should work to foster a communal spirit and highlight the practical advantages of rural/sustainable tourism as a whole. If marketers were to place a greater emphasis on promoting the sharing of travel experiences, this might contribute to tourism's continued expansion in a sustainable manner. More progress might be made to enable and promote sharing via social media. Marketers may encourage social media sharing by holding contests and awarding rewards to those who upload posts on social media related to their travel experiences to rural destinations. It can lead to sustainable public benefits and may influence attitude and encourage more powerful subjective norm and place emotion effects.

6.1 Theoretical Implications

The present study broadens the scope of available literature on the theory of planned behaviour in the context of sustainable tourism, more specifically, rural tourism. This study has tested and validated the widely used TPB model, taken social media use and place emotion as additional factors and makes significant contributions to the fields of rural tourism and travel intention with its suggested model and theoretical framework. This research provides a strong theoretical foundation for understanding travel intention within the setting of rural tourism. The findings of the present study demonstrate the relevance of the TPB model from the perspective of information and communication to psychology and emotion. First, it extends the existing literature on tourists' intention to visit rural destinations by integrating social media use and place emotion with the TPB model. The newness of this study lies in the fact that no previous study has been carried out in the Indian context that has incorporated social media use and place emotion with the TPB model to measure tourists' intention to visit rural destinations. Therefore, the present study addresses this gap by providing a strong theoretical backing for future researchers and academicians. Second, the findings support the need to combine social media use and place emotion with the TPB model to better understand the main determinants of travel intention. Third, the extended model gives a clear explanation of the significant drivers of travel intention, which would help future researchers and academicians better grasp the aspects of social media use and place emotion.

6.2 Practical Implications

A number of practical and managerial implications could be drawn from the findings of this study. Local and global social media advertisers, who wish to influence tourists' travel intention, could be benefited from the findings. Specifically, the findings of this research could be useful for those in the hospitality industry that serve tourists in rural tourist areas, such as tour operators, hotels, and travel agencies. The findings of this study would allow people, those involved in the travel, tourism and hospitality business in the country, to chalk out new policies, plans and strategies to cater the needs of rural tourists. Marketers should realise the worth of social media, and more emphasis should be given to the quality of the shared content over these platforms for making a strong impact on the minds of users. This study found that tourists' intentions to travel rural destinations are influenced by their use of social media and revealed that attitude towards rural tourism is the second most powerful predictor of intention to travel to rural destinations. Thus, industry practitioners and marketers should try to understand the factors affecting attitude over social media and should make their marketing and advertisement campaigns accordingly. It can therefore be stated that marketers should prioritise content over social media connected to atti-

tude to promote sustainable tourism. Instead of simply highlighting the appeals of certain tourist places, marketing strategies should be such that they could develop the social mood and attitude of users and could showcase the functional benefits of rural/sustainable tourism subsequently. Place emotion is also a significant predictor of travel intention to visit rural destinations. Therefore, local service providers must provide service in such a way so that real rural atmosphere and authenticity of the destination (rural area) could be restored and retained in the minds of tourists. This would enrich tourists experience and thus enhance satisfaction. In addition, tourism professionals and departments of tourism management should adopt a responsible stance to conserve the environment and local culture as a development goal. The only way to maintain the usefulness of local resources, fulfil the needs of rural tourists, and grow rural tourism is to cultivate rural tourism in a manner that does not cause damage to the surrounding ecosystem.

6.3 Limitations and Future Research Directions

The present study was intended to assess the impact of the TPB, with additional constructs, viz. social media use and place emotion on intention to travel to rural destinations in the Indian context. This study, like any other study, is not exempted from limitations. Despite achieving its objectives and providing a number of theoretical and practical implications for academicians and industry professionals, the study has certain limitations that will pave the ground for future investigations. First, it applied the TPB model to predict tourists' intention to travel to rural destinations. Future studies might incorporate other behavioural theories to predict travel intentions, such as social cognitive theory and behavioral reasoning theory. Second, social media use and place emotion were taken as additional constructs with the TPB model in the present study. Future studies could employ more constructs to predict tourists' intention, such as user-generated content (UGC), quality of content etc. Third, the present study is cross-sectional in nature. A longitudinal research design could be used in future research to get more robust results. Fourth, this study adopted questionnaire technique for collecting the data. Different data collection techniques could be applied in future studies, such as the interview method. Fifth, this study undertook 415 responses for interfering the results. A large sample size could be taken in future researches to get more in-depth and generalised results. Sixth, in this study, data was collected using the convenience sampling technique; however, future studies could use different sampling techniques for data collection. Seventh, this study was executed in India. Being a developing country, it has a huge impact on referent others on behavioral intention. As a result, future research could be conducted in other developed countries for more robust results and generalisation. Finally, the research framework proposed in the present study could be validated and tested in a variety of settings other than tourism. As a consequence of this, the outcomes may differ.

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Appendix A

Attitude (adapted from Sparks & Pan, 2009; Zhang et al., 2017)
ATT1: It is pleasant to participate in rural tourism activities.
ATT2: It is meaningful to participate in rural tourism activities.
ATT3: Rural tourism can create beautiful memories.
ATT4: Rural tourism can increase vision.

Subjective Norm (adapted from Sparks & Pan, 2009; Lin et al., 2012)
SN1: Family members think that it is meaningful to take part in rural tourism.
SN2: Most people prefer that I should take part in rural tourism.
SN3: Friends have recommended me to take part in rural tourism.
SN4: Friends think that it is meaningful to take part in rural tourism.

Perceived Behavioural Control (adapted from Sparks & Pan, 2009; Han et al., 2010)
PBC1: It is easy for me to participate in rural tourism.
PBC2: I feel there is nothing that prevents me from taking part in rural tourism.
PBC3: If I want, I can take part in rural tourism.

Behavioural Intention (adapted from Bagozzi et al., 2003; Fielding et al., 2008; Han et al., 2010)
BI1: I intend to participate in rural tourism.
BI2: I am planning to take part in rural tourism.
BI3: I am willing to take part in rural tourism in future.
BI4: I will take part in rural tourism because of local special activities.

Social Media Use (adapted from Ellison et al., 2007)
SM1: Social media is a part of my tourism activity.
SM2: Social media has become a part of my travel plans.
SM3: I feel out of touch when I have not logged onto social media while traveling.
SM4: I feel I am part of the social media tourism community.

Place Emotion (adapted from Kyle et al., 2005; Zhang et al., 2017)
PE1: Rural tourism means a lot to me.
PE2: I get much satisfaction out of rural tourism.
PE3: I actively take part in rural tourism.
PE4: I am very much interested in rural tourism.

Gender: Male / Female / Others

Age: Below 18 / 18- 27 / 28-37 / 38-47 / 48-57 / Above 57

Marital Status: Single / Married / Others

Education: Undergraduate / Graduate / Postgraduate / Ph.D. / Others

Occupation: Student / Employed / Employee / Retired / Businessperson / Others

Monthly Income (INR): Upto 15,000 / 15,001- 30,000 / 30,001-45,000 / 45,001-60,000 / Above 60,000

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Smart Travel Planning to the Algarve by Older Tourists before the Covid-19 Pandemic Crisis

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ABSTRACT

Information and communication technologies, or ICT, have revolutionized societies' daily lives and the economy's development on a global scale. Senior tourism is considered a sector in solid expansion, and, as such, it matters to understand the importance that these tourists attribute to these technologies. The association between tourism and digitalization gave rise to the concept of "smart tourism". So, it is essential to have the necessary skills to be active in a world mediated by the internet. It is not just tourist destinations that have evolved in the present digital age; tourists, themselves, have also changed. However, this digitalization has not equitably reached the entire senior population. The main goal of this article is to analyze the internet use by older tourists to plan their trip to the Algarve before the COVID-19 pandemic crisis. It has the specific objective of identifying and exploring what type of service they sought the information. The results indicate that there are statistically significant differences between different groups of respondents regarding the use of the internet to plan a trip to the Algarve.

KEYWORDS

Smart Tourism, Older Tourism, Information and Communication Technologies, Smart Travel Planning.

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1. Introduction

In tourism, digital transformation plays a central role, contributing to the dissemination of tourism products and services, allowing stakeholders and tourists to enjoy the benefits of globalization and social changes (Erdogan, 2021).

Society is becoming increasingly digital, systematically resorting to the use of the internet. Information and communications technologies (ICT) have become progressively more present, due to their accessibility and effectiveness, nowadays reaching its peak (Lee et al., 2020). Technologies thus play an important role in the development of numerous economic sectors, among which tourism is no exception (Medeiros et al., 2021).

ICT proves to be efficient and innovative when there is a diffusion within a social system, in which virtual reality technologies, augmented reality, image identification and recognition technologies are considered as the most promising technologies (Lee et al., 2020). In the opinion of Tsao et al. (2019), technologies such as virtual reality and augmented reality are a strong resource for seniors to rebuild their general awareness of their life value, philosophy and stories. These authors also argue that reminiscence therapies, using ICT, enable the activation of memories and cognitions in the older tourists, thus contributing to the prevention of dementia.

Information technologies are currently more accessible to the population, due to technological developments (Chang et al., 2019). The increase in accessibility is evidenced by the fact that 22% of the world population now own smartphones, 20% own personal computers (desktops and laptops), and 6% own tablets (Heggestuen, 2013). Smartphones are increasingly becoming the device of choice for consumers and tablets are gradually replacing traditional personal computers (Ko, 2018). In the realm of tourism, smart technologies have aroused great interest in the tourism field, since cities and destinations are increasingly "smart" (Atembe, 2015).

Smart tourism involves several elements supported by ICT (Law et al., 2020), which in turn are responsible for innovations in tourism (Buhalis, 2006; Buhalis et al., 2008). Furthermore, through interactive services and connectivity, ICT provides more accessibility and pleasure to tourists (Buhalis & Amaranggan, 2014). Three forms of ICT are vital to having a smart destination: IoT, cloud computing and end-user internet service system (Zhang et al., 2022).

Smart technologies are being developed by the tourism sector, with the awareness that they are very useful and practical for both consumers and providers of products and experiences. The use of smart devices in the tourist industry allows the maximization of the value of tourist resources and the production of enormous social and economic benefits (Pai et al., 2020). On the other hand, smart technologies are assuming an important role in supporting consumers through the implementation of QR code and sensors (Komninos et al., 2013). All this allows tourists to obtain necessary and relevant information, communicate, share experiences, among other activities.

But it's not just tourist destinations that have evolved in the present digital age, tourists themselves have also changed. In the last two decades, the intense use of ICT has resulted in a radical change, in terms of tourist consumer behaviour (Neuhofer et al., 2012; Buhalis et al., 2015; Neuhofer et al., 2015). Tourists are currently independent and skilled (Park et al., 2019) and have become more demanding, active and informed. They have seized new ways of searching for information and comparing, booking, interacting, sharing, complaining, reviewing and recommending (Buhalis, 2006; Buhalis & Law, 2008). Thus, according to Benckendorff et al. (2014) and Pearce (2011) these changes have shaped the digital tourist.

Tourists have been going through a great change, resorting to research, booking, personalization and communication, using new technologies. Due to the adoption of smart devices, more and more tourists plan their trip alone, without resorting to travel agencies, as they once did (Pai et al., 2020). Ko (2018) specifies that 88% of travel searches are done through personal computers and tablets and 27% are carried out through smartphones and search engines and online travel agencies have a dominant position in the marketing of hotels. The majority of hotel reservations are made from personal computers and tablets (81%), followed by reservations made through smartphones (21%). In the same study, it was possible to verify that search engines, family and friends are the most used sources of information for choosing hotels.

Currently, the search for information and online travel booking no longer occurs only through websites. These provide services for choosing and booking hotels, selecting restaurants and purchasing airline tickets (Balasubramanian et al., 2015; Wang et al., 2016; Suki & Suki, 2017).

Airline companies are offering airline ticket booking applications that individuals can download to their mobile devices. According to Parker (2017), in 2016, only 13% of the US population used their mobile phone to book holidays online or buy plane tickets, this is because the process is more challenging than making online reservations using a personal computer.

The development of the digital world has given rise to concepts such as digital competence, which involves the confident and critical use of Society and Information Technologies (IST) in work, leisure and communication. In this context, it is necessary to have digital literacy, that is, to have the necessary skills for a person to be an active member in a world mediated by the internet. In the western world, the senior population has been adapting to this digital age. The percentage of internet-users aged 55 and over has been increasing steadily in almost all European countries (Pesonen et al., 2015).

According to Eurostat information, in the EU-27, in 2019, some 28 % of the EU-27 population aged 65-74 years made at least one online purchase (for private purposes). In 2018, the percentage who participated in tourism for personal purposes (therefore excluding tourism linked to business purposes) was 49% (Eurostat, 2020).

In addition to the internet, senior people also use electronic devices to their advantage. Some studies show that they use smartphones and tablets to access electronic health services, to make social connections, to read books on the internet and for communication in general (Hardill & Olphert, 2012; Martinez-Pecino et al., 2012; Wan & Chan, 2013).

However, this digitalization has not reached the entire senior population in an equitable way. In a study carried out with the Swiss senior population, it was possible to verify that younger seniors use the internet more when compared to older seniors, and in this study, only 4.9% of seniors aged 85 and over use the internet regularly (Friemel, 2014). It was also observed that gender differences in internet use disappear when education, marital status and technical interest are similar in both genders. It was also observed that family and friends are strong influencers on the use of the internet (Friemel, 2014). Other studies indicate that the internet is used much less by retired older people (Shim et al., 2005) and by those with a lower level of education (Batra, 2009). Retired seniors, as well as senior people with a lower level of education, are more dependent on travel agents (Alén et al., 2017).

This was the context of the project ACCES4ALL - Accessibility for All in Tourism (2017-2019) that developed a case study of an age friendly and digital bus stop, with availability of Wi-Fi and information through an interactive panel to be located at the Faro International Airport, in the Algarve. The universal accessibility of information considers all users and should be addressed in this type of urban furniture. The question was whether older tourists have enough digital literacy to use these cutting-edge technologies.

Thus, as part of this project, surveys were conducted on older tourists (aged 60 and over) users of Faro International Airport. The questionnaires contained four sets of questions: information about the respondents, characterization of their mobility, information about the perception of universal accessibility conditions at bus stops, and their use of information and communication systems and technologies.

The main goal of this article is to study the use of the internet by older tourists to plan their trip to the Algarve. It has the specific objective of identifying and analysing what type of service they sought for information.

2. Case Study - The Project Accessibility for All in Tourism

The Algarve is located in the southernmost area of continental Portugal, which allows for a privileged contact with the Atlantic Ocean and to enjoy a mild and inviting climate for the many visitors it welcomes every year. With 16 municipalities and 67 parishes, the region combines multiple landscapes from the coast, *barrocal* and mountains with tradition rooted in its people and their customs.

In 2020 the Algarve was the main destination in Portugal with 30.1% of the total overnight stays in the country, having the second largest share (22.5%) of the country in the number of hotel accommodations, and 38.6% in bed capacity, the highest number in Portugal. In this region, overnight stays by tourists from

the United Kingdom accounted for 25.9% of the total overnight stays in hotels, the most represented market, followed by the German market (16.4% of total). Overnight stays in coastal areas accounted for 98.4% of the total for the region and 38.7% for the country, also the largest share (Instituto Nacional de Estatística, 2021).

Faro International Airport is located in central Algarve, the southernmost region of continental Portugal, and represents the main gateway for tourists to the region. Opened in the 1960s, it serves the Algarve region, Baixo Alentejo and together with Seville airport, also serves the Spanish community of Andalusia, especially the province of Huelva on the border with Portugal, 65 km east of Faro. According to ANA (2019), the airport operates international and domestic flights, mainly tourist oriented and with pronounced seasonal peaks. It handles over 40,000 flights per year, and the busiest time for air traffic is between March and October, especially during the summer months, when thousands of tourists, mostly from the UK, choose the Algarve and southern Spain for their vacations. In the months of July and August, Faro Airport records averages close to 200 flights per day and handles more than 25,000 passengers per day. In 2019, Faro Airport handled 9,009,000 passengers.

The main goal of the Project ACCES4ALL was to develop a pilot study of an accessible, smart and sustainable bus stop to be located in the most important transportation hub in Algarve, the Faro International Airport. A collaborative approach was developed which considered different interconnected actions: contacts and workshops with institutions and enterprises; questionnaire-survey for older tourists at Faro Airport; walking and observing people with visual disability and people in wheelchairs in the city of Faro and at Faro Airport.

In this project ICT are considered a key tool for promoting equity in access to information. Information accessibility according to the universal design approach should be systematically applied to modal interfaces. Therefore, it was important to understand the digital literacy of older tourists and their experience in the use of the internet to plan a trip to the Algarve.

3. Methodology

To understand the needs of older people in terms of their mobility and communication, a questionnaire-survey was developed by the research team. It considers four sets of questions: (1) information about the respondent; (2) characterization of their mobility; (3) information of the universal accessibility of a bus stop; (4) use of information and communication systems and technologies. The characterization of older tourists was made considering gender, age, level of education, professional occupation, country of residence, city or town where they reside, disabilities affecting mobility and the need for technical aids to get around the town.

The survey was developed for foreign older tourists aged 60 or over, considering that an older person is defined by the United Nations as a person who is over 60 years of age (UNHCR, 2018). The outbound markets for Portugal go beyond the European countries, where the ageing population is considered to be over 65 years old (Eurostat, 2020). Residents in countries such as Brazil, Canada and the United States of America seek out the national territory (Padinha et al., 2021).

Inquiries were developed in April, August and September 2018 and conducted randomly by professional inquirers at Faro International Airport, mainly in waiting areas before departure. During the survey, the interviewers used photographs to explain technical aspects to older tourists. Inquiries, totalling 851, produced considerable data that was introduced into an electronic file, using advanced statistical analysis capabilities of IBM SPSS Statistics for Windows, version 26 (IBM Corp., Armonk, N.Y., USA). Because of the low frequency of participants who were 90+ years old, 85+ year old participants were grouped.

This article only focuses on the use of information and communication technologies, referring to the fourth part of the applied questionnaire surveys. It should be noted that in this part, there are only two questions regarding the use of the internet to plan a trip to the Algarve and the indication of the type of service for which the older tourists sought the information.

The characterization of the older tourists was made by gender, age, level of education, disability condition and country of residence. Bar graphs, representing frequency of use of the internet for making reservations related to a trip to the Algarve by age, level of education, gender, disability condition and country

of residence, were created with error bars representing a 95% confidence interval. The chi-square test of independence was used to assess the statistical significance of relationships between the several groups of older tourists for each characteristic regarding the use of internet for making reservations related to a trip to the Algarve. The level of statistical significance was set at 5%, thus whenever results provided , it was assumed that there is statistical evidence to consider that the study variables are dependent and that the differences tested are statistically significant. To improve the performance of the chi-square test, in the case of the analysis by age and by level of education, only 3 groups were considered, namely 60-69, 70-79 and 80+ and namely Basic+Secondary, Vocational and Higher Education. The error bars in the bar graphs complement chi-square test results indicating the groups (by age, gender, level of education, disability condition and by country of residence) with significant differences regarding the study variable (the use of the internet for making reservations related to a trip to the Algarve) by looking for the overlap of the correspondent error bars.

4. Results

To characterise the respondents, 60.7% are male and 39.3% are female; 44.8% are in the age group 60-69, 39.8% in the age group 70-79 and only 15.4% aged 80 or over. Considering the different levels of education, 25.7% Basic Education and Secondary School, 54.0% Vocational/Technical Training and 20.3% have a Higher (Tertiary) Education (Table 1).

Table 1. Characterisation of the Sample of Older Tourists

Variable	Category	Sample	
		n	%
Gender	Male	513	60.7
	Female	332	39.3
Age group	60-69	376	44.8
	70-79	334	39.8
	+ 80	129	15.4
Level of education	Basic Education and Secondary School	214	25.7
	Vocational/Technical Training	450	54.0
	Higher (Tertiary) Education	169	20.3

Source: Own Elaboration

In respect of the disability condition, 25.3% answer that they have some disabilities affecting their mobility. In terms of country of residence, the respondents came from more than 30 countries, mainly from Europe as 40.6% came from the United Kingdom, 13.8% from Germany, 8.6% from Ireland, 7.8% from France, 4.5% from The Netherlands, 3.3% from Italy and 3.2% from Belgium, just to indicate the main ones. This data is in line with the data from the main source markets present at Faro International Airport in 2019. Regarding the origin of the demand, five international markets represent 84.3% of the total passengers processed: United Kingdom, Germany, Ireland, France and the Netherlands (Padinha et al., 2021).

The total percentage of elderly tourists surveyed that use the internet is 97.5%, which means that the vast majority of respondents use the internet (Vieira et al., 2022).

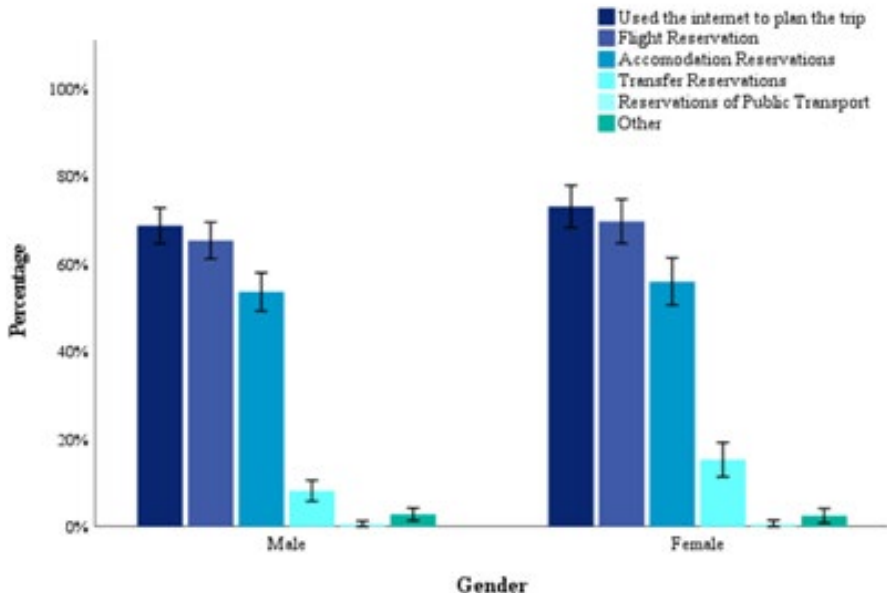
4.1 Use of the Internet to Plan a Trip to the Algarve

70.3% (589) of the senior tourist respondents used the internet to plan a trip to the Algarve, 65.8% (558) used it to make flight reservations, 53.3% (452) for accommodation reservations, 10.7% (91) for transfer reservations, 0.6% (5) for public transport reservations and 2.6% (22) used it to make other reservations.

4.2 Use of the Internet to Plan a Trip to the Algarve by Gender

When analyzing the data concerning male senior tourists, it can be seen that 68.9% (348) of them used the internet to plan a trip to the Algarve, 64.3% (328) used it to make flight reservations, 52.7% (269) for accommodation reservations, 8.0% (41) for transfer reservations, 0,6% (3) for public transport reservations and 2.7% (14) for other reservations. Regarding female senior tourists, 73.1% (239) of them used the internet to plan a trip to the Algarve, 68.7% (104) used it to make flight reservations, 15.1% (50) for transfer reservations, 55.1% (183) for accommodation reservations, 0,6% (2) for public transport reservations and 2.4% (8) for other.

Figure 1. The use of the Internet to Plan a Trip to the Algarve by Gender



Source: Own Elaboration

In this case, the results show that there are statistically significant differences between men and women regarding the use of the internet for transfer reservations, [χ^2 (1; n=842)=10.28, p=0.001], suggesting that women are more likely to use the internet for transfer reservations than men. Nevertheless, there are no statistically significant differences between men and women regarding the use of the internet to plan a trip to the Algarve, [χ^2 (1; n=832)=1.67, p=0.197], to make flight reservations, [χ^2 (1; n=842)=1.71, p=0.192], accommodation reservations [χ^2 (1; n=842)=0.456, p=0.499], public transport reservations [χ^2 (1; n=842)=0.001, p=1] and other reservations.[χ^2 (1; n=842)=0.089, p=0.829].

4.3 The use of the Internet to Plan a Trip to the Algarve by Age

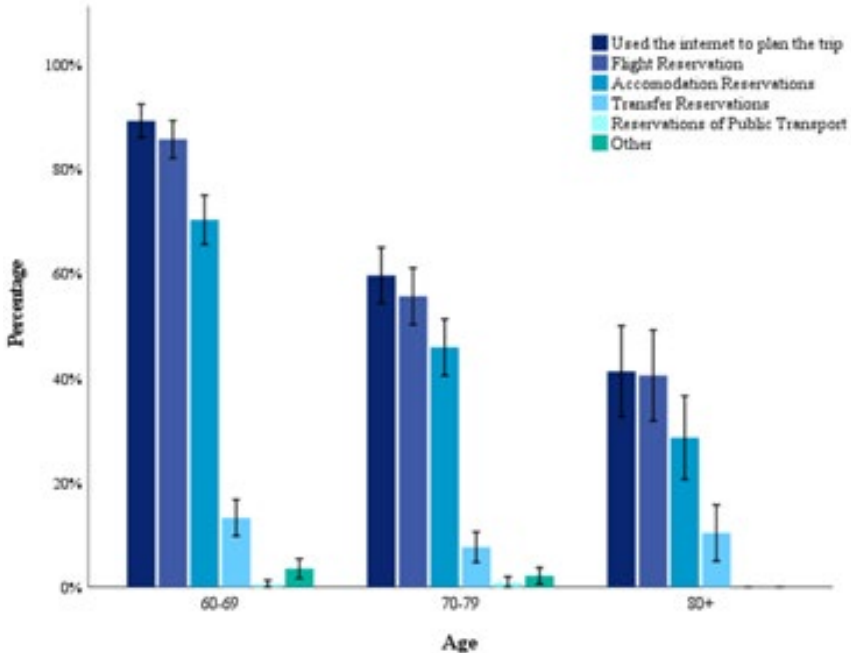
Analyzing the data considering age, it can be seen that 89.2% (332) of the senior tourist respondents aged between 60-69 used the internet to plan a trip to the Algarve, 84.8% (317) used it to make flight reservations, 69.5% (260) for accommodation reservations, 13.1% (49) for transfer reservations, 0.5% (2) for public transport reservations and 3.5% (13) used it to make other reservations. Moreover, 59.6% (195) of the senior tourist respondents aged between 70-79 used the internet to plan a trip to the Algarve, 54.5% (182) used it to make flight reservations, 44.9% (150) for accommodation reservations, 7.5% (25) for transfer reservations, 0.9% (3) for public transport reservations and 2.1% (7) used it to make other reservations. Finally, 41.7% (53) of the older tourist respondents 80 years old or over, used the internet to plan a trip to the Algarve, 39.8% (51) used it to make flight reservations, 28.1% (36) for accommodation reservations, 10.2% (13) used it to make transfer reservations. As for the use of the internet to make public transport and other reservations, none of the older respondents aged 80 or over used it.

For this case, the results show that there are statistically significant differences between the different age groups regarding the use of the internet to plan a trip to the Algarve, [χ^2 (2; n=826)=131.21, p<0.001], to make flight reservations, [χ^2 (2; n=836)=117.03, p<0.001], to make accommodation reservations, [χ^2 (2 ; n=836)=81.57, p<0.001] and to make transfer reservations, [χ^2 (5 ; n=836)=5.48, p=0.05].

Moreover, the results suggest that there is a decrease in the use of the internet to plan a trip to the Algarve, to make flight reservations and to make accommodation reservations as the age increases.

Moreover, the results suggest that there is a decrease in the use of the internet to plan a trip to the Algarve, to make flight reservations and to make accommodation reservations as the age increases.

Figure 2. The use of the Internet to Plan a Trip to the Algarve by Age



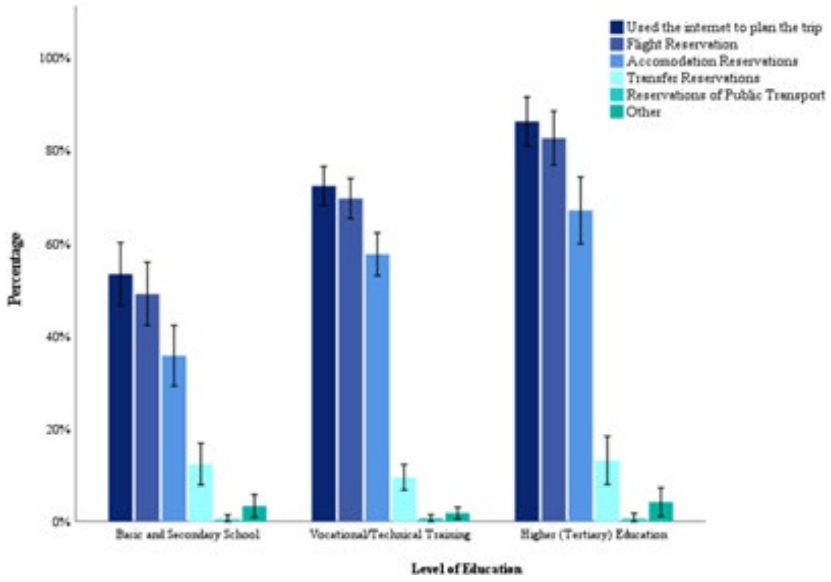
Source: Own Elaboration

4.4 The use of the Internet to Plan a trip to the Algarve by Level of Education

Concerning the use of the internet to plan a trip to the Algarve by level of education, it can be observed that 53.3% (112) of the older tourist respondents with Basic and Secondary Education used the internet to plan a trip to the Algarve, 48.1% (103) used it to make flight reservations, 35.0% (75) for accommodation reservations, 12.1% (26) for transfer reservations, 0.5% (1) for public transport reservations and 3.3% (7) for other. 72.5% (321) of the older tourist respondents with Vocational/Technical Training used the internet to plan a trip to the Algarve, 68.5% (307) used it to make flight reservations, 56.7% (254) for accommodation reservations, (42) 9.4% for transfer reservations, 0.7% (3) for public transport reservations and 1.8% (8) for other. 86.3% (145) of the older tourist respondents with Higher (Tertiary) Education used the internet to plan a trip to the Algarve, 82.1% (138) used it to make flight reservations, 66.7% (112) for accommodation reservations, 13.1% (22) for transfer reservations, 0.6% (1) for public transport reservations and 4.2% (7) for other.

In the case of level of education, the results indicate that there are statistically significant differences between the different levels of education groups regarding the use of the internet to plan a trip to the Algarve, [χ^2 (3; n=821)=51.03, p<0.001], to make flight reservations, [χ^2 (3; n=830)=51.26, p<0.001], to make accommodation reservations, [χ^2 (3; n=830)=42.84, p<0.001].

Figure 3. The use of the Internet to Plan a Trip to the Algarve by Level of Education

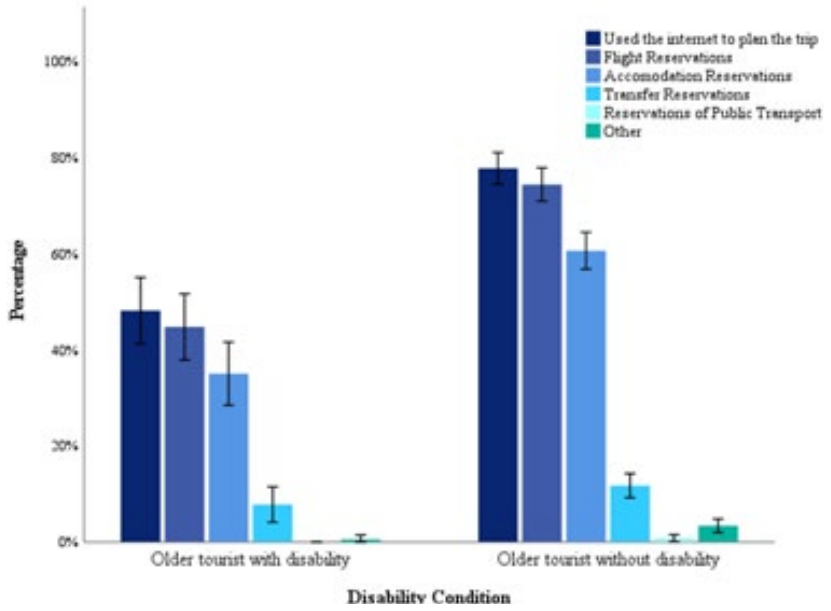


Source: Own Elaboration

4.5 The use of the Internet to Plan a Trip to the Algarve by Older Tourists with or without Disability

Concerning the use of the internet to plan a trip to the Algarve by disability condition, 48.1% (99) of the older tourist respondents with disability used the internet to plan a trip to the Algarve, 43.0% (92) used it to make flight reservations, 33.6% (72) for accommodation reservations, 7.5% (16) for transfer reservations, no one used it for public transport reservations and only 0.5% (1) used it to make other reservations. In the case of the older tourist respondents without disability, 77.7% (488) of them used the internet to plan a trip to the Algarve, 73.7% (464) used it to make flight reservations, 60.0% (378) for accommodation reservations, 11.6% (73) for transfer reservations, 0,8% (5) for public transport reservations and 3.3% (21) for other reservations.

Figure 4. The use of the Internet to Plan a Trip to the Algarve by Disability Condition



Source: Own Elaboration

The results reveal that there are statistically significant differences regarding disability condition and the use of the internet to plan a trip to the Algarve, [χ^2 (1; n=834)=65.41, p<0.001], to make flight reservations, [χ^2 (1; n=844)=66.8, p<0.001], to make accommodation reservations, [χ^2 (1; n=844)=44.58, p<0.001], other reservations, [χ^2 (1; n=844)=5.17, p=0.023],

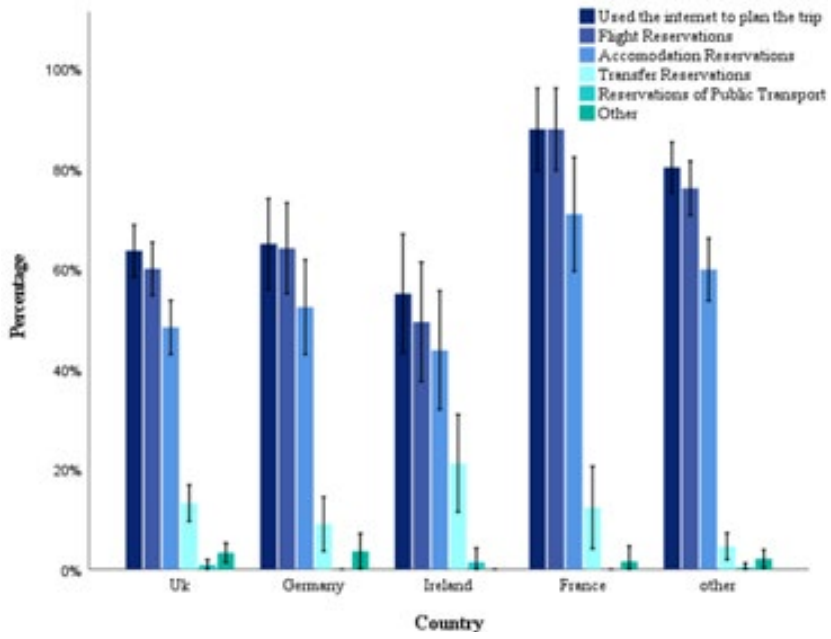
Regarding the use of the internet for transfer reservations, there is no difference regarding disability condition, [χ^2 (1; n=844)=2.86, p=0.091].

Regarding the use of the internet to make public transport reservations, as the values are very small the results are not valid.

4.6 The use of the Internet to Plan a Trip to the Algarve by Country

Concerning the use of internet to plan a trip to the Algarve by country 63.5% (212) of older tourists from the UK used the internet to plan a trip to the Algarve, 58.8% (200) used it to make flight reservations, 47.4% (161) for accommodation reservations, 12.9% (44) for transfer reservations, only 0.9% (3) for public transport reservation and 3.2% (11) used it to make other reservations. In the case of older tourists from Germany, 65.5% (74) of them used the internet to plan a trip to the Algarve, 62.3% (71) used it to make flight reservations, 50.9% (58) for accommodation reservations, 8.8% (10) for transfer reservations, no one used it to make public transport reservations and 3.5% (4) for other reservations.

Figure 5. The use of the Internet to Plan a Trip to the Algarve by Country



Source: Own Elaboration

The results indicate that there are statistically significant differences regarding the use of the internet to plan a trip to the Algarve analyzed by country of origin of the respondents, [χ^2 (4; n=825)=37.01, p<0.001], to make flight reservations, [χ^2 (4; n=835)=40.16, p<0.001], to make accommodation reservations, [χ^2 (4; n=835)=19.16, p=0.001] and for transfer reservations [χ^2 (4; n=835)=20.18, p<0.001]. Nevertheless, regarding the use of the internet for transfer ínsignificant differences.

5. Conclusion

Senior tourism has been a field of special interest for researchers and the academic community, having emerged in various academic studies in gerontology, travel and leisure time, with the older tourists being increasingly one of the most prominent market segments in the tourism sector (Alén et al., 2017; Patter-

son & Balderas, 2020). The debate about digital literacy of the older people has been increasing, since they currently have a higher level of use of technologies and the internet compared to previous generations (Martín et al., 2017). Senior people can play an active role in tourism travel planning through relational, information and communication technologies (Ramos-Soler et al., 2019) but the results of the present study show that, before COVID-19 pandemic crisis, the digital development of most senior persons were still lagging far behind.

With the development of information technologies and mobile applications, tourism activity allows for the diversification, dissemination and sharing of tourist products (Medeiros et al., 2021), thus proving the relevance of understanding and exploring the importance of ICT in senior tourism and assessing whether this sector is prepared to use the innovative technologies before, during and after a trip (Mandić & Praničević, 2019).

The present research is focused on the use of the internet by older tourists before a trip considering a survey developed before the COVID-19 pandemic crisis. It analyses the use of the internet to plan their trip to the Algarve, making flight reservations, accommodation and transfer reservations, among others. The results show that, before COVID-19 pandemic crisis, there are many older tourists that have digital literacy and plan their trips online. So, this study provides some insights for tourism managers to design or adjust online information about the place of destination. The websites have to enable older people with access requirements, to operate independently, that is, with autonomy, guaranteeing equitable use. Tourism managers and ICT experts have to create accessible websites take into consideration the principles of universal design.

The results show that there are statistically significant differences between the age groups, the levels of education, the tourists with(out) disability and the country of origin of the respondents. These differences confirm that there are a lot of older tourists who have no digital literacy. In fact, in a study developed by Wen et al. (2020) almost all senior tourists interviewed said they were afraid of using new technologies, especially when it comes to checking in at airports, hotels, and tourist attractions. And if they do not have any help from others to use this type of service, most older tourists interviewed are afraid and less willing to use smart technologies.

It's not just travel bookings that are associated with the growth of smart tourism. Currently, all tourist spaces and departments use smart devices, such as self-service check-in kiosks at hotels, check-in machines at airports, self-service ticket offices, and tourist guide systems at touristic attractions (Pai et al., 2020). Through the adoption of these smart devices, tourists thus benefit from a convenient and efficient system.

According to Ramos-Soler et al. (2019), many senior people choose their travel destination according to their experiences, as well as the recommendations of friends, and in some cases contrast this information with ideas found on the internet. In addition, the internet, considered as the most used information search tool, is often used to book accommodation and transportation.

The use and impact of technologies are related to traveller satisfaction (Law et al., 2020). Likewise, the use of technologies tends to increase the quality of tourist trips (Hrnjić et al., 2016). One of the essential tools for the satisfaction of travellers are smartphones, which play a crucial role in the leisure experience (Kirova & Thanh, 2019). The satisfaction of the travel experience has a positive effect both on tourist's happiness and on their intention to revisit the tourist destination (Pai et al., 2020), thus showing that it is beneficial for tourist destinations to invest in order to become smart destinations.

Smart destinations aim to improve tourist experiences through the use of the latest ICT and smart services (Boes et al., 2015). On the other hand, smart destinations are an innovative tourist destination, which guarantees sustainable development (Bifulco et al., 2016), capable of facilitating and improving the interaction of visitors with the experiences at the destination, and eventually the quality of life of residents (Lee et al., 2020). Finally, the construction of smart destinations has been focused on the needs of tourists and, through the combination of ICT, culture and innovation in the area of tourism, a quality service is promoted, tourism management is improved and the scale of economy increased (Buhalis & Amaranggana, 2014).

The 2020-2021 pandemic crisis is leading to the adoption of new approaches and technologies in the hotelier world (Lau, 2020). Live-streaming platforms and Wi-Fi 6 are promoted. 5G technology is installed,

which allows for better connectivity in terms of communication, and better use of artificial intelligence, the Cloud, the Big Data, the internet of Things, and other platforms. The pandemic has been reinforcing technological advances. Digitalisation tends to have a positive impact on the lives of senior persons.

Senior tourists significantly contribute to the reduction of seasonality in tourism (Patuelli et al., 2016; Otoo & Kim, 2018; Medeiros et al., 2021). There is, therefore, a need to rethink the use of ICT in this context, in order to promote greater involvement of senior tourists, tourist companies and places visited with their history and peculiarities, providing them with new experiences (Zhang et al., 2022). ICT should make tourists more active, since the articulation with mobile devices allows a greater level of interactivity. In fact, the speed of technological advances is changing the way individuals perceive the environment and the way consumers interact with companies and their products (Flavián et al., 2019). This is happening in the choice of tourist destinations by senior citizens, and the information available online is a determining factor in the attractiveness of the territories.

Considering the strengths of the Project ACCES4ALL, it gives innovating information to the use of the internet and other digital tools. The survey influenced a collaborative design process to develop inclusive and smart bus stops considering the perceptions of the older tourists and people with disabilities. The proposed smart and interactive panel has intelligent features to allow its adaptation to different users' needs (Rodrigues et al., 2018). In the case of elderly people, communication is attained, for example, using simple language.

Although the sample size is appreciable, this study has some limitations. The results should not be extrapolated to tourists, in general, because the majority come from developed European countries. Another limitation of the study is the larger proportion of men (than women) and the small number of respondents aged 85+ year old participants, probably with less digital literacy.

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