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International Tourists' Perceived Sustainability of Jeju Island, South Korea

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Abstract: This study investigated the causal relationships between international tourists' perceived sustainability of Jeju Island, South Korea and environmentally responsible behavior, revisit intention, and positive word-of-mouth communication. Perceived sustainability was employed as a multidimensional construct comprised of economic, cultural, and environmental aspects. Data were collected from international tourists that visited Jeju Island. The results indicated that environmentally responsible behavior was influenced positively by cultural sustainability, and negatively by environmental sustainability. Revisit intention and positive word-of-mouth communication were significantly affected by the three dimensions of sustainability. Based on the findings, associated implications were suggested for sustainable destination management of Jeju Island.

Keywords: perceived sustainability; environmentally responsible behavior; destination loyalty; Jeju Island; international tourist

1. Introduction

A sustainable future has become the most important topic in contemporary society as commitment to protect global biodiversity, promote sustainable development, and mitigate climate change has been advocated by organizations at the local and global level [1,2]. Specifically, the United Nations Educational, Scientific and Cultural Organization [3], an international member-state organization has closely engaged with governments to conserve natural and cultural resources that are of global significance via the designation of Global Geoparks, Biosphere Reserves, and World Heritage Sites [3]. All three categories aim to conserve natural and cultural resources, as well as promote sustainable development. Global Geoparks focus on geodiversity protection, while Biosphere Reserves center on managing biological and cultural diversity in terms of terrestrial, coastal and marine ecosystems [4]. In addition, Biosphere Reserves manage changes and interactions between a site's ecological and social systems, including management of diversity [3]. Likewise, World Heritage Sites focus on protecting cultural and natural sites as solutions that reconcile the conservation of diversity with sustainable use for tourism [3]. The designation based on any category creates international recognition of the cultural and/or natural values of the site, along with mandated government protection from associated economic development threats. In addition, the designated site often becomes a branded destination for tourism due to its unique values (e.g., integrity and authenticity) [5].

This aspect is evident in the context of Jeju Island in South Korea, which is the only site in the world to be listed as a Biosphere Reserve (2002), World Natural Heritage Site (2007), and Global Geopark (2010). These three major designations have been extensively promoted by the province of Jeju as the only triple-crown winner. Additionally, it was also voted as one of the New Seven Wonders

of Nature in 2011 [6,7]. Such accolades make Jeju Island a unique tourism destination for both domestic and international tourists. Jeju Island has been popular among tourists for decades due to its global reputation, and visitation trends indicate additional influx of international tourists is expected. Overall, there have been rapid annual visitation increases (see Figure 1), except in 2015 due to the breakout of the Middle East Respiratory Syndrome (MERS) [7].

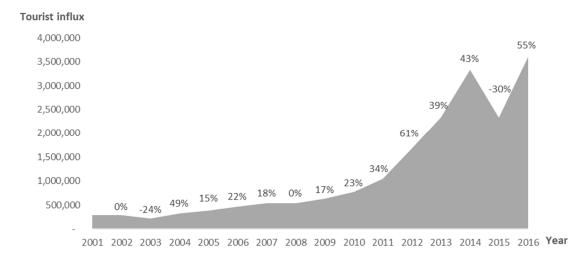


Figure 1. International tourist trends to Jeju Island.

With 12.6 million visitors (80% domestic and 20% international) annually and poised for further growth [8], the island destination is concerned about sustainability of its natural and cultural resources [9]. Jeju Island has embraced sustainability with emphasis on its environmental aspects (e.g., investment in wind power and electronic vehicles), while other sustainable practices have intensified due to the "Green Tourism" policy formulated by the Ministry of Culture, Sports and Tourism. Additionally, sustainability plans for the entire province have also been initiated by the governor to balance the economy, ecology and society of Jeju Island [9]. Although the private sector (i.e., tourism and hospitality enterprises) is largely interested in increasing visitor arrivals along with additional development of tourism infrastructure, the existing resources have demonstrated degradation via intensive land use [9]. Stakeholders such as residents along with private and public sector entities have been consulted to address growth concerns, as well as mitigation of impacts via sustainable practices [10,11]. As additional policies and objectives are further pursued, however, the roles of tourists and their behavioral actions have yet to be addressed.

Tourists should be considered as a major stakeholder in the process, and are essential to incorporate their perspectives with respect to the visited destination [12–16]. From a market orientation perspective, tourists with positive perceptions and attitudes toward a destination may lead to potential contributions via financial support (e.g., more frequent purchases and use of local services and goods) and non-financial support (e.g., being an advocate for sustainable initiatives) for sustainable tourism development [12]. Furthermore, tourists who are satisfied with their experience are more likely to be supportive of the destination's sustainable tourism development [13]. Hence, tourism products and services, specifically those related to sustainable tourism benefit from tourists' input, as they are key actors to assist destinations to maintain the goals of economic development and conservation [13–15]. Nonetheless, international tourists also have negative impacts towards destination's sustainability [17,18], as they may not be aware of their behaviors due to lack of cultural knowledge or ecology [19], nor care given their short length of stay [20].

Tourists' potential negative role demonstrates the need to exhibit environmentally responsible behaviors, especially within a fragile ecosystem that advocates sustainability [13,19,21]. Furthermore, changes in depreciative behaviors via direct (e.g., regulations, enforcement, and access restrictions)

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and indirect (e.g., educational materials, interpretation, and signage) management actions are critical, but first requires an assessment of visitors' knowledge and perception of the destination as well as acceptable responsible behaviors [22,23]. Since a key management goal is to achieve destination competitiveness, the importance of tourist perceptions of the site is warranted to assess and subsequently enhance performance [23,24].

In the case of Jeju Island, assessing and managing tourists' behaviors is a central component to address within the context of a sustainable tourism framework. Notably, a sustainability strategy with a focus on tourists could offer a competitive advantage, and enhance Jeju Island's sustainability performance [10,25]. Moreover, tourists' behavioral intention such as revisit and recommendation (i.e., positive word-of-mouth) can be another essential proxy to examine their perception of the destination (i.e., whether it is attractive enough to visit or recommend). Therefore, the purpose of this study was to examine the influences of perceived sustainability on international tourists' revisit intention, positive word-of-mouth, and environmentally responsible behavior at Jeju Island, South Korea. This study framed perceived sustainability as a multi-dimensional construct (i.e., economic, cultural, and environmental dimensions) grounded on previous research [12]. Based on the noted constructs, a proposed model was conceptualized and empirically tested.

2. Literature Review

2.1. Sustainability of Tourism

The conceptual underpinnings of sustainable tourism are adapted from the three dimensions of sustainable development: economic, social-cultural, and environmental [2]. Sustainable tourism is designed to satisfy the needs and demands of host regions and tourists, while enhancing and protecting opportunities for future generations [15,26]. More specifically, the principles are to: (1) embrace built, cultural, and natural components; (2) safeguard natural resources for tourism; (3) improve local host community's quality of life and living conditions; and (4) satisfy and attract tourists [13,27–29].

The three-dimensional approach (i.e., economic, social, and environmental) has been commonly employed in sustainable tourism [12,13,30,31]. First, the economic dimension of sustainable tourism seeks to meet the host population's economic needs and maximize outputs along with minimization of costs to enhance the vitality of the tourism industry [12,13,29]. More specifically, sustainable tourism results in increased employment opportunities and income, improvement in living standards, and infrastructure growth [32]. Second, cultural sustainability is defined as the continuation of identity, way of life, and local values of a group of people [33]. Thus, the cultural component emphasizes the protection of local areas and communities' socio-cultural resources and human-environment interactions, with focus on activities that provide opportunities for cultural exchanges and interactions among suppliers, travel intermediaries, residents, and tourists [13,15,30]. Third, the environmental dimension of sustainability promotes the protection of natural capital, ecological diversity and process, and addresses the use of both renewable and non-renewable resources [12,34]. In addition, this dimension involves linking economic benefits into environmental protection at a destination, minimizing negative influences of visitors, and educating residents and visitors about environmental protection [1].

Based on the dimensions of sustainability, destinations should ensure input and align its responsibilities with demands of all stakeholders [35,36]. A stakeholder is defined as "any group or individual who can affect or is affected by" the attainment of tourism development [35] (p. 46). Stakeholder theory focuses on multiple parties involved in the tourism development process (e.g., tourists, residents, entrepreneurs, and local government officials). Each legitimate individual or group participates in tourism development related activities to obtain benefits [36]. Basically, the key purpose in tourism development is to co-ordinate stakeholder interests [35]. While all stakeholders do not need to be equally involved, however, it requires that interests of all to be assessed. In particular, the failure to identify tourists' interest within a process may limit sustainable tourism development [37].

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Thus, this theory suggests that actual or potential visitors also need to be involved and value a destination's sustainability policies and initiatives to adequately implement sustainable practices in the long-term [36,37].

2.1.1. Perceived Sustainability and Environmentally Responsible Behavior

Prior research has underscored the importance of sustainable practices such as managing tourist behaviors, and visitation numbers for nature-based attractions [38–40]. It has documented that positive consequences of nature-based tourism development include support for national and local economy, learning about culture and nature, and sustainability of economic, socio-cultural, and ecological environments [40]. More specifically, tourists' environmentally responsible behavior is critical to minimize any negative impacts at the visited attractions.

In a tourism context, environmentally responsible behavior is based on how well a tourist understands the impact of his/her behavior on the natural environment of the destination [21,37]. In addition, environmentally responsible behavior is promoted by personal experience with a destination's natural resources and participation in an eco-travel activity within a nature-based setting [21]. Furthermore, tourists' experiences in a nature-based context allow observation of a destination's natural resources, thus leading them to engage in a more environmentally responsible manner [38]. Thus, this study proposes that perceived sustainability is a driver of environmentally responsible behavior among tourists:

Hypothesis 1 (H1). *Perceived sustainability (economic, cultural, and environmental) has a positive effect on environmentally responsible behavior.*

2.1.2. Perceived Sustainability and Destination Loyalty

Tourists' perception of a destination greatly influences their attitudes, which may result in behavioral intentions such as revisit and positive word of mouth [41–43]. These behavioral intentions are generally referred as destination loyalty, which corresponds to loyalty in consumer based brand equity [44,45]. Specifically, the consumer loyalty construct is attitudinal and refers to behavioral loyalty towards a product or service [46,47]. The concept of consumer loyalty has been utilized as a proxy to determine destination preference, including both visit and revisit intentions in the decision-making process [42,45,48], as well as recommendation intentions via positive word-of-mouth communication [42].

Both the revisit intentions and positive word-of-mouth communication have always been important for destinations due to the potential to translate into economic benefits through monetary spending by tourists [24,49–51]. From an empirical perspective, destination loyalty has been viewed as a significant indicator of sustainability. For example, tourists value a destination if they consider it to be economically, culturally, and environmentally meaningful [52]. Thus, the following hypotheses are formulated:

Hypothesis 2 (H2). *Perceived sustainability (economic, cultural, and environmental) has a positive effect on revisit intention.*

Hypothesis 3 (H3). *Perceived sustainability (economic, cultural, and environmental) has a positive effect on positive word-of-mouth communication.*

In summary, stakeholders' support for community's initiatives, as well as their participation to promote conservation and be involved in the planning process result in sustainable tourism development [16,27,29,53]. Sustainable tourism development needs to protect and enhance opportunities for the future by meeting the needs of both host regions and tourists [53]. In this

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context, tourism development embraces tourists' intention to behave responsibly, include support for policies, commitment to maintain environmental quality, and avoid any disruptive activity as a stakeholder [21]. Additionally, tourist behaviors within a nature-based setting create impacts on the natural resources, and influence destinations' sustainability [16,37,54]. Thus, tourist behaviors need to be assessed for destination management as well as to sustain its ecological values, especially at a World Heritage Site [5]. In addition, tourists could optimize experiences to participate in environmentally responsible behaviors at a destination, thus results in positive word-of-mouth communication and repeat visitation [5,55]. Herein, environmentally responsible behavior can be interpreted as one of the behavioral or destination loyalty dimensions.

3. Methods

3.1. Sample and Data Collection

Data were collected with a cross-sectional survey of international tourists that visited Jeju Island. More specifically, Chinese and Japanese tourists were sampled as they account for approximately 80% of all international tourists [8]. Two versions of the questionnaire were formulated (i.e., Chinese and Japanese). A blind translation-back-translation approach was conducted with consistency and accuracy to minimize translation errors [56]. The surveys were translated from English by graduate students and bilingual professors from the U.S. The final version was reviewed by four members from tourism institutions in China and Japan. Representatives from ten tour operators in Jeju Island were contacted to explain the objectives of the study. Upon agreement, the representatives distributed the questionnaires to their clients, who were international tourists. A Korean souvenir was provided to participants as a courtesy thank you (i.e., a traditional Korean bookmark worth US\$ 1). The questionnaire was distributed and collected at the end of their trip. A total of 500 surveys were distributed during May 2016. Of the 343 returned responses, 300 were used for analysis as 43 were removed due to missing information.

3.2. Operationalization of Variables and Analysis

All constructs and items were adapted from the literature: perceived sustainability [12], environmentally responsible behavior [21], revisit intention, and positive word-of-mouth [24]. Each item was measured on a 7-point Likert scale anchored by "1 = strongly disagree" and "7 = strongly agree". Data analysis was conducted with SPSS 20.0 (IBM Corp, Armonk, NY, USA) and AMOS 20.0 (IBM SPSS, Chicago, IL, USA). Reliability analysis was assessed via Cronbach's alpha coefficients. Confirmatory factor analysis (CFA) was conducted to test the relationships between the latent variables and indicators, as well as to examine the validity of each construct. Finally, structural equation modeling (SEM) was conducted to test the proposed model. This statistical technique examines the interrelationships among multiple mediators as well as independent and dependent variables simultaneously based on empirical data [57]. The application within a sustainable tourism context enables to identify dimensions of perceived sustainability, along with the potential influence to encourage environmentally responsible behavior and enhance destination loyalty.

4. Results

4.1. Sample Characteristics

Based on the sample, females represented 59.0% and males 41.0%. The nationalities were overwhelmingly Chinese (80.4%) and Japanese (19.6%). The breakdown of age group was as follows: 34.3% in their twenties, 52.0% in their thirties, 10.3% in their forties, and 3.3% fifty or older. In terms of education, 73% had 2- or 4-year college degrees, followed by high school graduates (19.3%), and postgraduate degrees (7.7%). The annual household income varied, with 36.3% at \$30,000–\$49,999, 28.3% at \$50,000–\$69,999, 16.3% at below \$29,999, and 11.3% at \$70,000–\$89,999. The travel composition ranged from family member (32.0%), friend (23.0%), spouse (23.0%), and alone (4.7%). Regarding trip

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purpose, 99% of the respondents reported to be leisure travelers. In addition, the overwhelming majority of respondents (95.3%) were first time visitors to Korea.

4.2. Measurement Model

The measures were subject to reliability and validity analyses. Reliabilities ranged from 0.722 to 0.907, which exceeded the acceptable level of 0.70 [58]. All measures were subsequently subjected to a CFA to test validity which indicated good fits: $\chi^2 = 234.728$, d.f. = 104, p < 0.001, GFI = 0.915, AGFI = 0.876, CFI = 0.961, NFI = 0.932, RMR = 0.076, RMSEA = 0.065 (see Table 1) [57,59]. In addition, all standardized factor loadings exceeded 0.50 (p < 0.01) that illustrated convergent validity's evidence. Discriminant validity was checked by comparison of the proportion of variance extracted (AVE) in each variable to the square of the coefficients that represented its correlation with other variables [60]. The AVEs in all variables exceeded the respective squared correlation estimate, which showed evidence of discriminant validity (see Table 2).

Table 1. Results of confirmatory factor analysis for measurement model. ¹

Constructs and Items	Standardized Loading	t-Value
Perceived economic sustainability ($\alpha = 0.907$)		
I have observed authorities in Jeju Island make investments to attract tourists.	0.833	Fixed
I have experienced that Jeju Island has good basic infrastructures.	0.823	16.836
I consider the tourist services at Jeju Island provide good value for the money spent.	0.868	18.189
I think the economic benefits of tourism in Jeju Island are greater than the economic costs.	0.851	17.694
Perceived cultural sustainability ($\alpha = 0.851$)		
I think Jeju Island values its historical heritage.	0.695	Fixed
I think Jeju Island values its cultural heritage.	0.826	11.966
I think local cultural and historical heritage resources and authenticity are being preserved for tourism.	0.799	11.760
Perceived environmental sustainability ($\alpha = 0.829$)		
I think the level of pollution in Jeju Island is acceptable.	0.762	Fixed
I think the level of smell in Jeju Island is acceptable.	0.893	15.403
I think crowd levels are acceptable even during the peak tourist season.	0.797	13.952
Environmentally responsible behavior ($\alpha = 0.853$)		
I accept the control policy about no entrance to the wetlands.	0.774	Fixed
I assist to maintain the local environmental quality (e.g., conservation of local environmental resources).	0.799	13.688
I report any environmental pollution or resource degradation to park administration.	0.873	14.321
I try not to disrupt the flora and fauna during my trip to the park.	deleted	-
Revisit intention ($\alpha = 0.722$)		
I will revisit Jeju Island in the future.	0.606	Fixed
I will probably revisit Jeju Island in two years.	0.945	11.670
Positive word-of-mouth communication ($\alpha = 0.901$)		
I will recommend Jeju Island to others.	0.932	Fixed
I will encourage other people to visit Jeju Island.	0.879	24.134

 $[\]sqrt{\frac{1}{\chi^2}} = 234.728$, d.f. = 104 (χ^2 /d.f. = 2.257), p < 0.001, RMSEA = 0.065, NFI = 0.932, CFI = 0.961, IFI = 0.961, TLI = 0.948.

Table 2. Construct intercorrelations (Φ), mean, standard deviation (SD), CCR, and AVE.

Constructs	Mean	SD	PNS	PCS	PES	ERB	RI	PWM
PNS	5.298	0.843	1					
PCS	4.917	0.899	0.416 **	1				
PES	5.622	0.831	0.634 **	0.527 **	1			
ERB	3.856	1.235	0.067	0.338 **	0.048	1		
RI	4.848	1.006	0.376 **	0.425 **	0.378 **	0.288 **	1	
PWM	5.098	1.038	0.514 **	0.402 **	0.485 **	0.217 **	0.780 **	1
CCR a			0.908	0.818	0.859	0.857	0.765	0.901
AVE b			0.712	0.601	0.671	0.667	0.630	0.821

PNS: Perceived economic sustainability; PCS: Perceived cultural sustainability; PES: Perceived environmental sustainability; ERB: Environmentally responsible behavior; RI: Revisit intention; PWM: Positive word-of-mouth communication; ** p < 0.01; a Composite construct reliability; b Average variance extracted.

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Lastly, common method bias (CMB) via Harman's one-factor test was assessed [61]. This test was conducted to compare the proposed model's fit (i.e., multidimensional model) against a single-factor model. If the single-factor model is a better fit than the proposed model (i.e., one latent factor accounts for all variables), it suggests evidence of CMB [62]. The single-factor model yielded χ^2 = 1659.719 with d.f. = 119 (compared with χ^2 = 234.728 and d.f. = 104 for the six-dimensional measurement model). The fit was considerably worse for the unidimensional model; hence, CMB was not a serious threat for this study.

4.3. Structural Model and Test of Hypotheses

The proposed model was tested by a covariance matrix using AMOS 20.0. The overall model fit indices indicated that the model fit the data well: $\chi^2 = 234.728$, d.f. = 104, p < 0.001, GFI = 0.915, AGFI = 0.876, CFI = 0.961, NFI = 0.932, RMR = 0.076, RMSEA = 0.065. Maximum likelihood estimates for the parameters of the model are provided in Figure 2 and Table 3.

H1 predicted perceived sustainability would affect environmentally responsible behavior. More specifically, results illustrated that environmentally responsible behavior was significantly influenced positively by cultural sustainability (coefficient = 0.555, t-value = 5.549, p < 0.01), and negatively by environmental sustainability (coefficient = -0.264, t-value = -2.270, p < 0.05). However, economic sustainability was not statistically significant. Therefore, H1 was partially supported.

H2 posited perceived sustainability would influence revisit intention. The results showed that revisit intention was significantly influenced positively by economic (coefficient = 0.198, t-value = 2.242, p < 0.05), cultural (coefficient = 0.204, t-value = 2.472, p < 0.05), and environmental sustainability (coefficient = 0.234, t-value = 2.230, p < 0.05). Hence, H2 was supported.

H3 postulated perceived sustainability would impact positive word-of-mouth communication. Results indicated that positive word-of-mouth communication was significantly influenced positively by economic (coefficient = 0.286, t-value = 3.462, p < 0.01), cultural (coefficient = 0.185, t-value = 2.416, p < 0.05), and environmental sustainability (coefficient = 0.240, t-value = 2.451, p < 0.05). Likewise, H3 was supported.

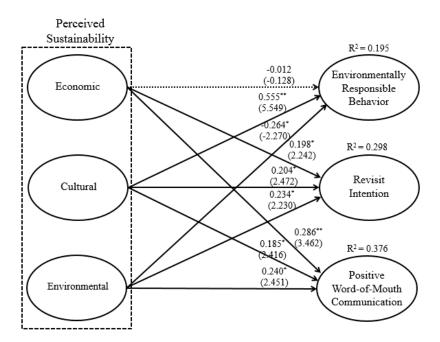


Figure 2. Final structural model. Standardized coefficient (*t*-value), solid line: significant path, dotted line: insignificant path, ** p < 0.01, * p < 0.05.

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Path	Standardized Estimates	Standardized Error	t-Value
Economic sustainability → Environmentally responsible behavior	-0.012	0.134	-0.128
Cultural sustainability → Environmentally responsible behavior	0.555	0.158	5.549 **
Environmental sustainability → Environmentally responsible behavior	-0.264	0.184	-2.270*
Economic sustainability → Revisit intention	0.198	0.082	2.242 *
Cultural sustainability \rightarrow Revisit intention	0.204	0.087	2.472 *
Environmental sustainability → Revisit intention	0.234	0.111	2.230 *
Economic sustainability → Positive word-of-mouth communication	0.286	0.105	3.462 **
Cultural sustainability → Positive word-of-mouth communication	0.185	0.112	2.416 *
$Environmental\ sustainability \rightarrow Positive\ word-of-mouth\ communication$	0.240	0.142	2.451 *

Table 3. Standardized parameter estimates.

5. Discussion

This study aimed to underscore the significant role that international tourists may play in destination sustainability. While the importance of stakeholder involvement has been highlighted to achieve sustainable tourism development and management, the input of tourists as a stakeholder group is often overlooked [12–14,21,54,63–65]. Moreover, in the case of internationally recognized destinations, it is arguable that tourists' de facto role is vital along with other stakeholders (e.g., domestic tourists, residents, and government) to achieve destination sustainability [66].

Furthermore, although international tourism has grown sharply globally, there is a paucity of research with respect to the interrelationship between international tourists' perceptions of sustainability and favorable outcomes (i.e., revision intention, word-of-mouth communications, and environmentally responsible behavior) within a nature-based destination [54]. Accordingly, this study examined the influence of perceived sustainability on such variables among international tourists at Jeju Island. The results indicated that when international tourists have high levels of perceived sustainability, they are more likely to denote revisit intentions, engage in positive word-of-mouth communication, and pro-environmental behaviors at the visited destination.

5.1. Perceived Sustainability and Environmentally Responsible Behavior

The environmentally responsible behavior of international tourists was positively influenced by cultural and economic dimensions, and negatively influenced by environmental sustainability. While the positive relationships were in concert with previous research [39,67], the negative influence of environmental sustainability was unexpected. This finding could be the result of majority of international tourists were first time visitors to Jeju Island, and may not have place attachment to the destination [68,69]. In addition, since tourist visits are temporary, they may not be aware and/or care about the harmful influences of their behavior on the destination's natural resources. Such behavioral tendencies by visitors have been illustrated in related studies [19,20].

From a practical perspective, Jeju management authorities need to acknowledge that "resources are not, but they become" [70] (p. 15) to clearly understand the relationship between visitor's negative perception of environmental sustainability and environmentally responsible behavior. Environmental resources are not static but rather flexible. Depending on who utilizes and manages the natural resources, the environment can experience different consequences. Tourists may only realize the environmental consequence of their visit after they return home [71]. However, destination authorities should aim to communicate the environmental sustainability needs of the destination before and during the visit. Pro-environmental behavior of visitors is an ongoing managerial challenge, but its promotion among visitors can contribute positively to visitor's perception of destination sustainability [72–74]. Ultimately, it is the destination authorities' responsibility to communicate the environmental challenges of the destination (e.g., increased carbon dioxide emissions, and decreased number of endangered species and algae) to tourists by formulating policies that can lead to an increase in visitors' awareness about Jeju's environmental sustainability. As communications are an important device to understand

^{**} *p* < 0.01, * *p* < 0.05.

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visitor's perception of the environment [75], language containing environment message can be a tool for authorities to communicate with visitors about the destination's environmental concerns. Language that targets to promote the environmental sustainability can be delivered by various communication mediums such as signage at the destination or online platforms. Specifically, utilizing Jeju Island's Destination Management Organization website and various official social network accounts by authorities (i.e., Instagram, Facebook, and Tweet) can be appropriate to educate international visitors to enhance their pro-environmental attitudes and perceptions.

5.2. Perceived Sustainability and Destination Loyalty

Destination authorities should be reminded that the tourism industry and market is consumer-driven [71]; such that success of a destination and reinforcement of sustainable tourism primarily depends on the tourists. Tourist's decision to travel is heavily influenced by the value they perceive from the natural resources. Therefore, it is essential for destination authorities to understand visitors' perception of the destination sustainability and its relationship to destination loyalty. The international visitors to Jeju Island exhibited a positive association of all three dimensions to their intention to visit and word-of-mouth communication. Jeju Special Province Government should understand the nature of destination sustainability among its three dimensions—economic, cultural, and environmental—are not mutually exclusive, but interrelated. The government is recommended to shape destination policies based on an integrated focus of the dimensions. Jeju Island can greatly benefit from a holistic action plan and a comprehensive management strategy for sustainable destination development when each dimension is closely coordinated. Implementation of policies to manage and utilize the land by incorporation of visitors' perspective could result in increased loyalty towards destination as well as awareness of sustainable tourism. Collectively, these can contribute to maintain and operate a sustainable tourism destination.

5.3. Academic Implications

Overall, by expanding previous research [28,39], this research proposed and incorporated all three dimensions (i.e., economic, cultural, and environmental) of perceived destination sustainability and identified its positive influence on both destination loyalty dimensions (i.e., positive word-of-mouth communication and revisit intention). The findings imply that perceptions of all dimensions of sustainability, as opposed to a single dimension, provide a more expansive explanation of international tourists' environmental behavior and intentions [39,76,77]. This finding is significant as the goal of sustainable tourism is to maintain a healthy balance between the three dimensions to ensure destination's long-term commitment to sustainability [28].

To date, the existing sustainable tourism literature has largely emphasized the relationship between environmental sustainability and visitors' behaviors, referring to sustainable tourism as green tourism or ecotourism, and focusing on natural attractions [28]. However, destination loyalty has also been considered a critical factor influencing a destination's economic sustainability in terms of tourists' revisits, recommendation, and positive word-of-mouth [24,25]. Thus, this study expanded the literature. The finding indicated that destination loyalty is multi-facet, and is essential to understand destination loyalty along with environmentally responsible behaviors from a wide range in the management of a sustainable tourism destination.

6. Conclusions

Although sustainable tourism is important for both tourists and residents in a destination, prior research has mainly focused on local community perspectives. Accordingly, this study investigated the influences of three dimensions of perceived sustainability on environmentally responsible behavior and destination loyalty among international tourists visiting Jeju Island, a major nature-based destination in South Korea. Based on the empirical findings, this study contributes to the literature on sustainable tourism.

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7. Limitations and Recommendations

This study calls for future research to extend the proposed model with potential moderators (e.g., gender, personality, cultural value, personal value orientations, etc.). This might influence the perception of destination sustainability and formation of behavioral intention, and associated behaviors (e.g., willingness to pay a premium for a destination, recommendation, etc.) among international tourists. Second, other mediators between perceived sustainability and behavioral intention/behavior (e.g., satisfaction, emotion, place attachment, and commitment) could also be utilized to enhance the explanation power of tourists' perceived sustainability predicting their actual behavior. Third, the sampling strategy was limited due to privacy and proprietary issues as noted by the tour operators. Since respondents were not directly accessible to researchers; the lack of random sampling might have skewed the findings. Further research is recommended to ensure a larger sample based on a randomized approach to provide additional generalizations of the findings. Lastly, replicated research with a focus on domestic tourists is also recommended, as findings may differ, and management actions will need to be accordingly accommodated.

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