

Research on Tourists' Low-Carbon Tourism Behaviors from the Perspective of Stakeholders

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Abstract

Tourism is a rapidly growing industry with a significant impact on the global environment. The increasing number of tourists and their behavior has a direct impact on the energy consumption and corresponding carbon footprint emission during their travel. To mitigate the adverse effects of tourism on the environment, it is imperative to raise awareness about low-carbon tourism among tourists and related stakeholders. The purpose of this paper is to investigate the influence of stakeholders' perspectives on guiding tourists' low-carbon tourism behavior. Through literature review and case studies, the paper aims to explore the effective strategies to encourage tourists to adopt low-carbon tourism behavior from the perspectives of stakeholders including government, travel industry, and local communities.

Keywords

Low-carbon Tourism; Tourists' Low-carbon Tourism Behavior; Stakeholders.

1. Introduction

Climate change is to be considered a severe threat in recent decades. For this reason, significant attention has been paid to this problem by researchers, academic experts and governmental officials. In 2003, the UK issued a white paper on energy with the theme of "Future Energy: Creating a Low-Carbon Economy," which first proposed the development concept of "low-carbon economy" to deal with the serious environmental problems of global warming. The Copenhagen climate conference in 2009 made the concept of "low carbon" more widely concerned by people all over the world.

However, tourism is generally viewed as a highly consumptive industry with a substantial share of destinations operating at less desirable eco-efficiency values than the global average (Gössling et al., 2005). Although it is an active and healthy lifestyle, the event of tourism is based on the high cost of resource consumption with the rapidly increasing consumer demand. The behavior of tourists' consumption shows characteristics of non-low-carbon obviously. As such, it is essential to find ways to reduce its negative impact and promote more sustainable practices. Low-carbon tourism is a new concept that has been launched and promoted recently in the sustainable low-carbon economy, responsible tourism and development. Low-carbon tourism behavior involves tourists taking steps to minimize their carbon footprint while traveling. This can include choosing environmentally friendly transportation options, accommodations, and activities. To be effective in promoting low-carbon tourism behavior, it is important to consider the views and perspectives of all stakeholders involved in the tourism industry. This includes tourists, travel companies, governments, and local communities. Understanding the motivations, concerns, and challenges faced by each of these groups can help to develop more effective strategies for encouraging low-carbon tourism practices.

2. Methods

The methodology of this research involves a qualitative case study approach, including in-depth interviews with stakeholders, observation of low-carbon tourism initiatives, and content analysis of relevant documents. The case study sites--Zhejiang province were selected based on their reputation for promoting low-carbon tourism and the diversity of stakeholders involved. The data collected were analyzed using thematic analysis to identify the common patterns and trends in the stakeholders' perspectives and strategies for guiding tourists' low-carbon tourism behavior.

3. Literature Review

Low carbon tourism development abroad started in 2000, and BCU advocated a kind of holiday footprint tool, and the tool was designed to provide a more useful or a wider range of sustainable development strategy under the background of "responsible tourism". Then many foreign scholars carried out findings about energy consumption, tourist behavior and carbon emissions of tourists, found that the different modes of travel, accommodation facilities and even the diet of tourists, affected the energy consumption of travel process [1]. And tourists have been responsible for global CO₂ emissions, accounting for 4.4%, which would continue to increase with an annual rate of 3.2% from 2005 to 2035 [2]. Tourism is a kind of important economic activities, both tourist consumption and waste emissions are more than local residents' daily amount [3]. Through investigation, most tourists were willing to get carbon offsets [4], but relying on carbon offsets exclusively, may hinder the sustainable development of tourism industry [5], so tourism industry stakeholders should recognize the consequence of environmental degradation, and provide strategic management for sustainable tourism practice [6].

In China, researchers put stress on qualitative explanation on the concept and countermeasures of low carbon tourism. For example, Liu thought low consumption and low pollution are the core of low carbon tour [7]. Huang put forward a low-carbon in the domestic tourist attractions in order to lay a good foundation for the creation of low-carbon city [8]. Huang and Yao researched the applications of Low Carbon Society in leisure industry area by Delphi method [9]. Li et al. established a primary low carbon tourism community assessment system to promote low-carbon tourism conception [10]. Cai and Wang thought that low-carbon tourism pattern could be achieved by creating low-carbon tourist attractions, building low-carbon tourism facilities, and so on [11]. Research has investigated the influence of personal values, beliefs, and attitudes on tourists' low-carbon behaviors. This includes exploring the impact of environmental awareness, concern for the environment, and a willingness to pay for sustainable tourism practices on tourists' low-carbon behaviors. For example, Chen and Wu uses VBN (value-belief-norm) theory as the basic framework, incorporates two normative factors that reflect Chinese cultural characteristics, mianzi consciousness and group consistency consciousness, and modifies the general VBN model based on Chinese cultural characteristics to construct an integrated model to explain Chinese tourists' low-carbon tourism behavior. The results show that tourists' traditional values have a significant effect on their low-carbon tourism intention through beliefs and personal norms. [12]. Some studies have explored the potential barriers to low-carbon tourism, such as a lack of availability of low-carbon options and the cost associated with sustainable tourism practices. These findings can provide insights into how to overcome these barriers and promote low-carbon tourism more effectively.

In conclusion, the literature on low-carbon tourism highlights the complex interplay of various factors that affect tourists' adoption of sustainable practices while traveling. Effective strategies

for promoting low-carbon tourism behaviors need to take into account the perspectives and challenges faced by both tourists and the tourism industry.

4. Guiding Strategies for Tourists' Low-Carbon Tourism Behavior from the Perspective of Stakeholders

The results of the case studies reveal that different stakeholders have different perceptions and priorities in terms of guiding tourists' low-carbon tourism behavior. The government sees low-carbon tourism as a means to achieve sustainable development and environmental protection, while the travel industry considers it as a way to improve their reputation and competitiveness. Local communities view low-carbon tourism as a way to preserve their cultural heritage and improve their livelihoods. The results also show that the stakeholders adopt various strategies to encourage low-carbon tourism behavior, including policy and regulation, education and communication, incentives and disincentives, and community involvement.

4.1. Government

The government assumes important responsibilities in the whole stakeholder system, coordinating and balancing the interests of different players. It formulates macro-policies for energy conservation and emission reduction, and works with industry associations to further refine the standards and regulations for energy conservation and emission reduction in tourist attractions, hotels and other relevant institutions. It also guides enterprises to implement specific behaviors. Firstly, Governments can establish environmental regulations and standards for the tourism industry, such as mandatory use of energy-efficient technologies, restrictions on single-use plastics, and carbon emissions reporting requirements. Secondly, the government also needs to increase financial and technological support to mobilize the enthusiasm of relevant practitioners. Governments can offer tax incentives for companies and individuals who adopt sustainable tourism practices, such as investing in renewable energy, promoting low-carbon transportation options, and supporting community-based tourism initiatives. Thirdly, Governments can invest in low-carbon infrastructure, such as public transportation systems, renewable energy projects, and sustainable tourism facilities, to support the development of low-carbon tourism. Fourthly, governments can also enforce regulations that promote sustainable tourism practices. For instance, they can impose penalties on companies that engage in unsustainable practices, such as the use of single-use plastics, and provide correct guidance and a good development environment for low-carbon tourism. Moreover, governments can also raise awareness about the importance of low-carbon tourism through education and outreach programs by using various platforms such as WeChat official accounts, Weibo, websites, to publicize green and low-carbon tourism knowledge and explain garbage classification, so as to encourage the public to regard environmental protection as a kind of obligation and conscious behavior. In addition, the government can also provide incentives for tourists who adopt low-carbon behaviors. For instance, they can offer discounts or special promotions for tourists who choose to use public transportation or participate in eco-friendly tours and activities. Governments can promote and market their destinations as low-carbon tourist destinations, highlighting their sustainable practices, environmental initiatives, and low-carbon transportation options.

4.2. Tourist Attractions

For the managers of tourist attractions, they should consciously take green environmental protection as an important indicator for the construction and development of tourist attractions, and take low-carbon green as the guiding ideology for landscape layout in addition to beautiful scenery for landscape evaluation. For example, to further highlight the tourism value of natural landscape, planning tourism products with a low-carbon environmental

protection theme. Service facilities in the tourist attractions should also meet the low carbon requirements, such as using new energy vehicles, sewage recycling treatment devices, low-carbon tourism environmental sanitation facilities, and prohibiting the use of disposable tableware. Do not provide overly packaged tourist goods, guide tourists to classify garbage. At the main attractions or transportation centers, water drinking equipment should be placed to promote the behavior of tourists to bring their own water bottles and reduce the use of bottled water. Low carbon education should be carried out for tourist attractions, so that the low carbon concept will be deeply rooted in people's hearts. The green environmental protection should also be placed in a prominent position on scenic area brochures and signs. Scenic spots can provide electronic tour guides to guide tourists to use electronic tour guides instead of paper guides. Based on maintaining the existing landscape resources, it is necessary to uphold the ecological concept of emission reduction, energy saving and recycling, and integrate the low-carbon development concept into the development of natural resources, the reception capacity of scenic spots and the design of sightseeing facilities, so as to make traditional scenic spots full of vitality, improve the rate of re-visit and promote the sustainable development of scenic spots.

4.3. Tourists

Tourists are the main subject of tourism behavior, and their awareness and behavior directly affect the energy consumption and corresponding carbon footprint emissions during tourism activities. Therefore, it is necessary to vigorously enhance the low-carbon tourism awareness of travelers, properly reduce the requirements for comfort, and reduce electricity and water consumption. The idea of low carbon can be run through each link in the tourism process of catering, accommodations, transportation, sightseeing, shopping and entertainment. For catering, tourists can adopt low-carbon behavior by choosing local and organic food options, avoiding single-use plastic packaging and utensils, and reducing food waste. Additionally, tourists can support environmentally friendly restaurants and cafes by choosing to dine there. For accommodations, tourists can choose accommodations that prioritize energy-saving and environmentally friendly practices, such as using renewable energy sources, recycling, and reducing water consumption. They can also opt for accommodations that offer environmentally friendly amenities, such as towels and linens that are washed with eco-friendly detergents. In terms of transportation, tourists can reduce their carbon footprint by choosing public transportation, cycling or walking instead of private vehicles. They can also choose low-carbon modes of transportation, such as electric or hybrid cars, or opt for train or bus travel instead of air travel. When it comes to sightseeing, tourists can adopt low-carbon behavior by choosing eco-friendly tourist attractions and activities, such as visiting national parks and wildlife reserves, or participating in activities that promote environmental awareness and conservation. Additionally, tourists can choose to use environmentally friendly means of transportation, such as electric or hybrid vehicles, when visiting these attractions. For shopping, tourists should try to purchase the original eco-tourism products and souvenirs against excessive packaging. No trade of rare plant and animal species and their products should be involved in maintenance of ecological diversity. For entertainment, tourists can adopt low-carbon behavior by choosing entertainment options that minimize their carbon footprint, such as attending outdoor concerts or visiting museums and art galleries that prioritize environmentally friendly practices. Tourists should respect the local culture with the possible participation of local and cultural activities, for example, tourists can experience with the traditional festival, life rituals of rich activities and rich local customs and cultural, and participate in local gardening, tree planting and other activities for carbon sink. In this way, tourists not only enjoy a healthy tourism environment, but also create a healthy tourism environment, and promote the sustainable development of low-carbon tourism.

4.4. Tourism Enterprises

Tourism enterprises have a crucial role to play in promoting low-carbon tourism. Firstly, they need to enhance the knowledge and understanding of their employees about low-carbon tourism. Only if the tourism personnel have a comprehensive understanding of low-carbon tourism and a high level of environmental awareness, they can effectively disseminate the concepts and knowledge to the tourists. Tourism enterprises can also contribute by offering a variety of low-carbon tourism itineraries and promoting them to the tourists. Travel agencies can play a major role in this regard by designing environmentally-friendly tourism packages. Hotels can promote low-carbon behavior among tourists by focusing on engineering, management, and service. For example, hotels can conduct research on the differing lighting requirements of guests based on different scenarios and use energy-efficient lighting fixtures along with timed intelligent control to achieve low-carbon management. Additionally, they can adopt clean energy and low-carbon technologies and create a low-carbon tourism atmosphere. Transportation providers can promote the use of low-emission vehicles and provide information about local public transportation systems. Furthermore, the tourist industry can also invest in research and development to find new and innovative ways to reduce their carbon footprint and promote sustainable tourism practices. For example, they can explore new technologies, such as renewable energy sources, to power their operations and minimize their environmental impact. In conclusion, low-carbon tourism is an urgent issue that requires the attention and action of not only tourists but also tourism enterprises. By promoting low-carbon behavior among tourists and implementing environmentally-friendly practices, tourism enterprises can play a crucial role in mitigating the negative impact of tourism on the environment.

4.5. Community

Community involvement is an important aspect of low-carbon tourism, as it helps to ensure that the local population benefits from and supports sustainable tourism practices. Here are some ways that communities can be involved in low-carbon tourism: Destination Management Organizations (DMOs): DMOs can engage with local communities to understand their needs and preferences, and involve them in decision-making processes related to tourism development. Community-based tourism: Communities can develop and manage their own tourism initiatives, such as homestays, cultural tours, and ecotourism activities. This can help to increase local ownership and ensure that the benefits of tourism are shared among the community. Sustainable tourism training and education: Communities can be trained on sustainable tourism practices, such as waste management, energy-efficient technologies, and low-carbon transportation options. Involvement in environmental conservation and protection: Communities can play an active role in protecting their local environment, such as through conservation programs, reforestation initiatives, and beach clean-ups. Carbon offsetting programs: Communities can participate in carbon offsetting programs, which help to mitigate the carbon emissions associated with tourism activities by funding renewable energy projects or reforestation efforts.

5. Conclusion

This paper provides insights into the influence of stakeholders' perspectives on tourists' low-carbon tourism behavior. The findings suggest that the cooperation and coordination of different stakeholders are critical to the success of low-carbon tourism initiatives. The study also highlights the need for a holistic approach to low-carbon tourism that considers the perspectives of all stakeholders and adopts a combination of education, incentives, and community involvement.

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