



The Experience and Follow-up Feedback of Low-carbon Tourism for Seniors: Taking Taipei's Yangmingshan Jingshan Rosort Hotel as the Research Target

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Abstract

With the global warming, extreme weather attacks all over the place, green values resort to environmental protection and sustainable management, has become a universally respected concept. As citizens of the planet, it is everyone's responsibility to slow down the rate of carbon emissions on earth. In terms of tourism activities, through the low-carbon, green tourism model of practice, in addition to being able to liberate the pressure to meet the physical and mental leisure needs of individuals, but also can be satisfied with the concept and mission level. This paper focuses on a group of people over the age of 55 in the North Taiwan who are on a two-day, one-night low-carbon light trip in the Jingshan Rosort Hotel of Yangmingshan, Taipei City. The author also explores follow-up feedback of seniors after experiencing low-carbon tourism. Through the interview method combined with the literature analysis, two conclusions are drawn.

1. *Low-carbon tourism planning must incorporate age factors.*
2. *Make good use of type of group to promote low-carbon tourism.*

Keywords: Green value, Low-carbon tourism, Senior citizen, Jingshan Rosort Hotel

1. Preface

The role and function of tourism in the industrial and commercial society is becoming more and more important. Commuters plan their vacations in advance to travel to relieve themselves of their year-round hardships. Families will also travel together to help them bond with each other. As for weekly vacations, they often go out with their friends to enjoy the scenery..... After the COVID-19 epidemic in Taiwan subsides in 2021, the most obvious feature of the 727 downgrades is that the Elephant Hill in Taipei is overcrowded. It is a wonderful leisure experience for the city dwellers to be able to sweat, enjoy the scenery and overlook the Taipei basin.

Recently, people's thinking about tourism has even changed from whether to travel or not to travel. to how to travel? With the rise of environmental awareness, "low-carbon tourism" (Song Peiling, 2020), which is based on low energy consumption, low pollution, and low carbon dioxide emissions, is undoubtedly more in line with people's value orientation. However, in terms of age, the younger the person is, the more physically capable he is, the more he can take hiking and backtracking, and the less he has to use transportation to move around in space, so he is relatively friendly to the environment. Even a tent or even lying on the ground.....It is not difficult for young people. On the contrary, as people get older, they demand more and more details from their travels, and it becomes more and more difficult to change their travel patterns. In this paper, we take a group of people in the age group as the target group, who planned and practiced a two-day and one-night low-carbon light trip.

2. Literature Review

2.1 Low Carbon Tourism Definition, Aspirations, and Practices

(1) Definition

Unlike the traditional tourist model of more sightseeing + dining + shopping + going to the bathroom, low-carbon tourism can be described as an adjustment of the attitude towards travel. From the beginning of planning, this model combines "low carbon" and "tourism" in a green recreation model (Shi & Peng, 2010). Low carbon dioxide emissions are achieved through interlocking actions (Guo & Dai, 2012).

(2) Complaint

Tourism is associated with a certain amount of energy consumption and carbon emissions (Simpson, Gössling, Scott, Hall, & Gladin, 2008; Horng, Hu, Teng, & Lin, 2014; Lin, 2010). Among them, 75% of the total emissions are due to transportation in tourism, and the rate is increasing at 3.2% per year with the globalization of transportation (Peeters & Dubois, 2011). How to strike a balance between tourism and carbon emissions? This has become an issue of great concern (Hsiao, 2016) and one that has implications for the future of the industry. For instance, as noted by the World Tourism Organization in 2008, tourism accounts for 5% of global greenhouse gas emissions and produces at least 23 kg of carbon dioxide per person per trip. If tourism continues, global CO₂ emissions from tourism are expected to increase by 130% by 2035 (World Tourism Organization, 2009). By 2009, the World Economic Forum published a report that also proposed reducing greenhouse gas emissions, believing that a tourism strategy with reduced energy use and increased efficiency could relieve the pressure of life and achieve energy saving (Lin Junhan and Fang Xiangquan, 2018). The demand for low-carbon tourism is undoubtedly a rethinking action against the inherited model.

(3) Practice

The implementation of low carbon tourism depends not only on the resource planning and requirements of the tourism service but also on the tourists' efforts to have more significant benefits (Sustrans, 2007; Simpson et al., 2008). As a result of the promotion of environmental protection concepts over the years, most of the travelers themselves have become aware of their responsibility for environmental protection in general (Hu, Horng, Teng, & Chou, 2012) and have developed a desire to make a positive impact on the environment (Lee & Moscardo, 2005; McDonald, Oates, Alevizou, Young, & Hwang, 2012). Reflecting the empirical studies on low-carbon living practices, more than 50% of the people are willing to practice it in their consumption behavior (Li Jianming, Hong Yueyong, Xie Yating, & Chen Zanyu, 2019).

2.2 Behavioral Intent, Awareness and Action for Low Carbon Tourism

(1) Behavioral Intentions

"Intention" is a necessary process for behavioral performance and is presented as a decision prior to behavioral manifestation (Ajzen, Fisbein, 1980). The factors that influence behavioral intention include "attitude," "subjective norm," and "perceptual behavioral control" (Ajzen, 1991). While subjective norms are the social pressure that an individual feels when taking a particular behavior, the stronger the subjective norms are, the more likely it is that the behavioral intention to engage in the behavior is generated. The strength of the subjective norms will naturally affect the attitude of the individual, which in turn forms the control of the perceptual behavior. The stronger an individual's positive attitude toward a behavior, the stronger the intention to engage in that behavior (Ajzen, 1991). The willingness of people to try and how much effort they put in can be used as an indicator of behavioral intention performance (Lin Yuen et al., 2016). The formation of behavioral intention is related to the dissemination of ideas and even education and the overall social atmosphere.

(2) Awareness and Behavior

Wen Yuhong, Chen Dunji, and Lin Yu-chi (2017) investigated attitudes, subjective norms, perceptual behavioral control, and low-carbon gear cognition in relation to the intention of slow travel, and the results showed that there was a positive and significant relationship between attitudes and subjective norms on low-carbon gear cognition. At the same time, the cognitive effects of low-carbon transportation on the attitudes and behavioral intentions of slow travel and on the mediating relationship between subjective norms and behavioral intentions were also confirmed. In addition, Liu Xixian (2017) analyzed the low-carbon diet, cognitive application, and various influencing factors for students in food and beverage-related subjects. The results show that the implementation of a "low-carbon diet" depends mainly on school education and training as well as self-practice; the students' knowledge of professional knowledge and ability to practice is deeply influenced by the environment, with an average of 80% coming from the media and peers. In addition, Chen Guanyang, Xiao Zhihui, and Wang Yi (2020) also tested the relationship between brand awareness and green consumer awareness on the perceived quality of low-carbon travel packages for university students. It was found that the promotion of the concept led to a change in educational awareness and had a positive impact on consumers' subsequent actions. These empirical studies show a positive correlation between cognition, behavioral intent, and action.

(3) Low Carbon Tourism Awareness and Action

Han et al. (2010) examined the behavioral intentions of travelers choosing eco-hotels and found that changing behavior through personal knowledge, perceptions, and attitudes can significantly contribute to reducing carbon dioxide emissions, which is also relatively quick. In terms of the implementation of low-carbon tourism in Taiwan, Ji Jingyi (2014) investigated the relationship between tourists' environmental attitudes and low-carbon tourism awareness on participation in related itineraries and willingness to pay prices, and the results showed that tourists agreed on the overall environmental attitudes (mean = 4.11), and had a certain level of overall low-carbon tourism awareness (mean = 3.95). In terms of willingness to participate in low-carbon tours, 61% of the participants were willing to participate in low-carbon tours, indicating a linear correlation between environmental attitudes and awareness of low-carbon tourism and a significant level of environmental attitude and awareness of low-carbon tourism. This shows that people's willingness to pay for low-carbon tours is influenced by their attitudes and awareness. In addition, Qiu Hanru (2019) investigated the relationship between environmental awareness, environmental attitudes, and behavioral intentions of high school vocational students in Kinmen County toward low-carbon tourism and found that all dimensions were significantly and highly positively correlated. Among them, the predictive power of the "environmental awareness" component of environmental awareness was the highest. As for the middle and upper age groups, according to a study by Li Zhiwei (2013), women have better attitudes than men in terms of perceptual behavioral control and intention to engage in the practice, which is higher than other age groups due to the age difference over 51 years old.

3. Research Objectives, Subjects, and Methods

3.1 Research Objects

Jingshan Recreation Area, also known as Yangmingshan Hot Spring Resort, is currently the only legal recreation area in Yangmingshan National Park, with a total area of 25 hectares. After the Yangmingshan National Park Administration applied for investment in 2015 (R.O.C. 104), the park was rebuilt into two major areas, the camping area and the resort cabin area, to provide accommodation for visitors. There is also a forest bath in the area, and a weak acidic sulfur spring from the cold water pit, also known as "milk soup," where visitors can soak in the hot spring while looking at the Datun Mountain and enjoying the night view of Taipei.

3.2 Research subjects

This paper is based on a study of a study group for seniors. All of them are over 55 years old. The club is mainly engaged in woodworking learning, often using "trimmings" or discarded second-hand wood products, so most of the members have the environmental concept of energy-saving and carbon saving. Therefore, at the end of the course, at the initiative of one of the members, they decided to take a low-carbon trip to the suburbs of Taipei, with a total of 11 members participating in this event.

3.3 Research Methodology and Data Collection Strategy

This paper adopts a semi-structured interview method in which the researcher compiles an interview outline according to the purpose of the study in order to collect respondents' opinions and perspectives on specific events. The advantage of this method is that it is reasonably objective and allows the respondents to fully reflect their own thoughts and opinions, which can lead to more valuable information (Wang Wenke and Wang Hongzhi, 2009). After the interviews, the verbatim drafts were compiled to form the context of events and frames, and then the initial themes were formed by analyzing the structure of experiences and constructing meanings. Then, the focus was shaped into common themes (Gao, 2008) and summarized and analyzed.

4. Data Analysis

The interview is divided into three parts: planning, accommodation, transportation, and food choices, and participant feedback. The following data analysis is conducted.

4.1 Expanded by the support of the concept

(1) Knowledgeable advocates

The organization's travel plan was set up from the beginning to be low-carbon travel. Respondent A was the first one to advocate.

When I found out that the club was planning a summer trip, I always wanted to add the concept of low-carbon travel to the trip (A).

My wife has participated in resource sorting before, and she told me about the demand for low-carbon tourism, which I personally agree with (A).

I am planning this trip with awareness and intention.

(2) Agreed Participants

The main reason for the participants' response is the recognition of the low carbon concept.

We all know that the earth is getting warmer, so why not do it when we can do it. And people are bringing their families out to play (G).

I am a Christian, and from the perspective of the Christian faith, people have to be good stewards of the earth. Low carbon is good (B).

For modern people, it is the responsibility of global citizens (H).

In recognition of the concept of environmental protection and low carbon, the participants supported the idea that this can achieve the purpose of tourism and leisure, and at the same time, can also fulfill the low carbon ideal of tourism planning. Moreover, for the participants, eating and drinking do not have much impact, they said.

Traveling doesn't have to be just eating good food. If you want that, going to a restaurant or a hotel on weekdays can satisfy (B).

We have stayed in many hotels, and in Yangmingshan, how uncomfortable will it be? The point is to go out for a walk. (K)

It was clear that the focus of their participation was to have a good time with the participants.

(3) Event coordination without the concept

The low energy consumption that low-carbon calls for also have different expectations depending on the participants' own experiences. In other words, some of the respondents were not entirely motivated by the demand for low carbon. Instead, they directly echoed the activities of their youth.

It sounds very much like a camping trip in college or a march in the army, so I'd like to reminisce about it again while I'm still physically fit (E).

Some other respondents thought that "green" was related to forests, etc.

Yangmingshan is very close, and it's like Europe and America to stay in a cabin in summer (I).

It's nice to absorb phentermine in the forest at night (J).

Low carbon light tourism is made possible by the absence of strong opposition or even negative support from participants.

4.2 Tourism planning content

(1) Accommodation

As the subject of the study is the only legal open space in Yangmingshan, it is easily accessible from the north, and the time cost is relatively low, so the location was soon recognized.

At the time of planning, which was around April, we started to prepare. There were campsites and cabins in the Jingshan camping area, and we started to discuss where to stay to be more low-carbon (B).

Yes, Taipei is too hot in summer, so it would be nice to go to Yangmingshan (K).

The point is to choose a cabin or a camping area?

I like camping, and it's something I did when I was young (E).

It doesn't matter to me, and I just want to be comfortable. I don't want to come back tired from a trip and have to lie down for two days (C).

But the camping area will use the relevant equipment is not less than the cabin :

We went to the site and found that the camping area is very well equipped, such as under the pallet are plugged holes, using electricity is very convenient. You can also drive your car in directly. The important thing is that we have to carry some personal camping items, so it's not more energy-consuming (A).

There are a lot of mosquitoes in the mountains in summer, so if you camp, do you need to bring mosquito scent or insecticide? Isn't this also an environmental burden? When we booked our room, there was still room in the cabin, so staying in the cabin was also an option (F).

Finally, the cabin was chosen for its low carbon footprint.

Later, we decided to stay in a cabin and bring our own utensils and dishes (D).

In line with the literature, it is important to choose eco-certified accommodations for low-carbon stays (Kuo & Dai, 2012) and to bring personal toiletries to reduce the use of disposable utensils and conserve water (Horng et al., 2014). After check-in, they also reuse towels and bedsheets as much as possible (McKercher, Prideaux, Cheung, & Law, 2010). These are consistent with the actions of the study participants.

(2) Transportation

As for the choice of transportation, the participants almost always took a minibus to Yangmingshan or took a bus and then a taxi. Almost all participants took a minibus to Yangmingshan or took a bus and then a cab to get there. The interviews are summarized as follows :

We took the metro to the station and then took a minibus to the station (B).

The minibus drove directly to the entrance of the rest area, so it was much more convenient than driving yourself (F).

However, there were more than ten people, so it was okay to arrive in two groups, and we wouldn't lose them, so those who checked in first went for a walk and played with the water first (H).

The study participants walked as much as possible after arriving at the fixed point to give themselves more opportunities to walk and enjoy the high oxygen content of the mountain.

Besides the minibus, we walked as much as possible from the park to the waterfall and to the nearby farmer's house, so we all wore casual shoes (G).

Responding to the literature on low-carbon transportation planning, most suggest arranging short-distance trips and making longer stops after arrival (Simpson et al., 2008; Dickinson et al., 2011) and reducing the chance of taking alternative transportation. Walking, bicycling (Dickinson, Lumsdon, & Robbins, 2011), or using public transportation (Horng et al., 2014; Sustrans, 2017) can reduce the energy consumption of transportation.

(3) Food

As for food practices, they include carrying reusable tableware and shopping bags (Teng, Horng, Hu, & Chen, 2014). The study also chose local and seasonal ingredients (Kuo & Dai, 2012; Horng et al., 2014) or local snacks to reduce carbon emissions from indirectly driving the transportation of ingredients or re-cooking. The study participants planned the trip over two days and nights. The study was conducted in the simplest way possible.

Since we were only staying for one night, we planned from the beginning to spend more time walking that night and enjoying the mountain environment, so we did not eat at the restaurant (A).

Therefore, the participating respondents thought:

I think it is the best plan to eat, that is, to reduce the need for transportation of ingredients as much as possible, like everyone brings their own food up, I also bring my own buns in an insulated box (I).

Try not to eat meat, relatively low-carbon, and our age also try to eat lighter (H).

This does not mean that there is no restaurant in the sitting area. And as Respondent B said :

There was a good restaurant right next to the cabin, but we prepared our own bread and fruit and snacks, all ready to eat. We said jokingly that it was a vegetarian trip (B).

It is based on the awareness and intention to put the concept of a low-carbon diet in the itinerary. In order to strike a balance and still have a food itinerary for the next day.

The trip was planned for the next day at noon to a nearby farmer's house to eat wild vegetables and local chicken.

Wow, it was really cheap and delicious. I didn't expect that more than 2,000 NTD would be enough to feed a dozen people.

I left the hut at 9:00 and walked around, but I was so hungry by noon. It seems like a long time since I've eaten such delicious food (H).

The design aims at the lowest carbon consumption and local knowledge through food and drink, as stated by respondent G. :

Farmers grow almost all of their own vegetables, and fish are raised by themselves. The cost is arbitrarily calculated in order to eat such cheap and very realistic dishes (G).

For tourists, why not spend less money on food and drink while enjoying fresh, unprocessed, and original ingredients?

4.3 Experience and Feedback

The following is a summary of the feedback from the participants of the two-day and one-night low-carbon light tour.

(1) The original purpose of leisure travel has been met

The satisfaction is also related to the fact that this light trip took place in the summer.

When I came here, it was summer vacation, and Taipei was so hot that it was like a furnace. When we got to the mountain, it was very windy, and we didn't feel so stuffy. It was very quiet and comfortable to hike in Yangmingshan, and a cab thought we were lost and drove by to see if there was anyone who wanted a ride (D).

I wanted to go to Europe every summer, but I dared to hide at home, it was so hot, I didn't think I could take a bus to such a quiet and isolated place next to Taipei (G).

In summer, some waterfalls have no water, and it's almost noon in the mountains, so I'm dozing off (H).

The purpose of the trip is to enjoy the relatively cooler environment at Yangmingshan, away from the heat at the bottom of the mountain, so as to achieve a change of environment and express stress.

With a two-day week off, I think we have achieved the purpose of leisure and the relaxation of the change of environment. I think I have already (F).

The next day, when I took the minibus down the mountain, I didn't want to move when I arrived at the Shilin metro station, I wanted to stay on the mountain (I).

(2) A cognitive tug-of-war with the traditional tourism model

As for the feedback on the overall trip after returning home, this group of participants felt that :

It was really like a camping trip. I wanted to go to a restaurant that night to have a big meal, but it didn't seem enough just to eat some chips and goodies, so I went to buy instant noodles (E).

Yeah, it's not bad, but it doesn't seem to be quite enough. When the minibus arrived at the university, I was thinking about buying some bamboo, etc. (J).

It was less like a tour and more like an excursion, a sleep-over excursion (C).

Later on, some of the participants said how they didn't arrange to buy some pickles or go for coffee or something (C).

For them, since they had expectations of traveling, they wanted to arrive at the hotel and have a good meal or buy some specialties, so when these expectations were not met, the members felt "not quite like traveling." In addition, the cabin was located in an open forest area, which made it difficult for some of the participants to adapt.

There is a screen window and a door, but the problem is that mosquitoes came in, and I tossed and turned the whole night (J).

The cabin is divided into a double and a pass-through. I slept in a pass-through and had to go downstairs to go to the toilet in the middle of the night, and the snoring sound, especially clear at night (H).

This is different from the full-service tourist accommodation that participants are used to and makes the next day's walk less enjoyable, so some participants feel that they can only participate in this low-carbon tourism activity occasionally.

For me, it doesn't matter if I come here once in a while, it's more suitable for two days and one night like this, but if it takes longer, I may need to take a tour bus or something (D).

I was able to move all by myself, eat local food, take a hot spring bath, and have a good time. But the next day, I was still not very energetic because I usually lack exercise (B).

Some respondents directly stated their feelings and insights :

I am almost 60 years old and should have been eating a light diet. But every time I go out, no matter domestic or foreign, I am used to eating something delicious or buying something, which I always want to have fun, but I feel that I have not had much fun (H).

One month after the trip, the 11 members who participated were asked, and 4 of them thought it was okay to do it occasionally. As for doing it again, 2 of them said they did not want to. This is the feedback from the low-carbon travel experience.

5. Conclusions and Suggestions

The following are the conclusions of this paper and suggestions for follow-up research.

5.1 Conclusion

(1) Low carbon tourism planning must include an age factor

Low-carbon tourism has elevated tourism from the purpose of leisure and sightseeing to an expression of life attitude. It also demonstrates the individual's recognition of environmental protection and low-carbon concepts. However, it is not easy to actually get rid of tourism from the level of personal needs. In this paper, we use the example of low-carbon light travel for the older age groups and find that even though it was well planned and enjoyed by the participants, they were not motivated to do it again due to their physical limitations and stereotypes of travel. However, due to the limitation of personal strength and stereotypes of travel, they do not have a positive intention to do low-carbon travel again. There are difficulties in recognizing the concept but not implementing it. Low-carbon tourism is still in the promotion stage, and planning must take into account the age group of visitors in order for them to implement the concept and enjoy the process of travel.

(2) Low-carbon tourism through group dynamics

The motivation of the group itself can diversify and enrich the purpose of the tour through the group's initiative. The enjoyment of the group's friends and friends can also strengthen the concept of low carbon and balance the individual to overcome the gap between low carbon tourism and general tourism. In the case of low-carbon tourism, which is planned and initiated from the traveler's side, we can find that from concept to practice, and we must incorporate the factor of individual members' "habit" awareness. This habit factor, in turn, is to a certain extent a function of the traveler's desire to comfort himself or herself through travel so that low-carbon travel is not associated with boredom or even stays in a situation of occasional retreat.

5.2 Suggestion

In terms of the implementation of low carbon tourism, the research results and personal observations are presented herein to suggest subsequent related research.

(1) The Impact and Reconciliation of Inherent Tourism Models on Low Carbon Tourism

Low-carbon tourism can certainly achieve the purpose of leisure and physical and mental pressure, but without the enjoyment and shopping of ordinary tourism, the implementation of low-carbon tourism is often not focused on the tourism itself. At the same time, participants also tend to have the feeling that their needs are not being met. How do we reconcile the inherent tourism model with low-carbon tourism? How is the dialogue between them? This is the first suggestion for further research.

(2) Planning of low-carbon light travel routes for middle-aged and elderly people in the suburbs of Taipei

As middle-aged and elderly people start to withdraw from the workplace, they have more time to engage in leisure activities. Only Taipei City, as the best district, tends to have high energy consumption for related leisure activities. Therefore, it is recommended that low-carbon tourism routes be planned for Taipei City and its suburbs to guide people smoothly. In the case of Yangmingshan, there are also hot springs in Beitou, butterfly appreciation, and spring and summer bamboo shoot tasting tours, all of which can be designed under different themes. This is the second recommendation of the subsequent research for this paper.

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