

An Empirical Study on Consumer Experience and Quality of Green Tourism

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Abstract. Green tourism refers to a form of tourism in which those involved in the tourist experience (e.g., travelers, travel agencies, hotels, and destination managers) must respect nature and protect the environment in every aspect of the journey. Such tourism not only provides travelers with an enjoyable experience but also allows them to take action to protect the environment, thereby fostering a sense of environmental awareness. However, green and low-carbon tourism products have only been developed recently. Consequently, in Taiwan, governmental agencies and private companies have tended to allocate limited resources for these products. Therefore, maintaining the quality of green tourism and improving tourist satisfaction under the constraint of limited resources are the keys to developing the green tourism market. By conducting an importance–performance analysis, this study aimed to identify the factors affecting tourist satisfaction with green tourism in Taiwan, the results of which can serve as a reference for businesses to design green and low-carbon tourism products and highlight the areas where resources can best be allocated to improve the quality of green tourism.

1. Introduction

Although green tourism helps to save energy and protect the environment, such tourism can be inconvenient for tourists, who, for example, may have to pay to ride a bicycle or electric motorcycle, despite the inferior mobility compared with a petrol-powered vehicle. Consequently, consumers are often unwilling to choose green tourism.

Environmental awareness studies have primarily focused on ecotourism and rural tourism. Previous studies of green tourism in Taiwan have only discussed the greening pattern and the benefits of specific aspects on the tourism supply chain, such as green bed and breakfasts and green consumption. However, few studies have focused on products related to green tourism or low-carbon tourism. Nevertheless, successful examples of green tourism and relevant studies outside Taiwan have indicated that green tourism is worthy of encouragement¹⁻³.

Experience refers to the knowledge of a specific object or idea derived from interaction and engagement with it as well as the associated sensory or psychological response. Tourism experiences are those that a tourist acquires when traveling or receiving tourism services. Tourism experiences are closely related to the after-sales ratings and consumer satisfaction rankings of a tourism product.

Because green and low-carbon products have only been recently introduced to the market, in Taiwan, governmental agencies and private companies have avoided committing large amounts of resources to these

products. Given these resource-limited conditions, identifying the factors that can improve consumer experience and satisfaction is the key to developing the market for green tourism products^{4,5}.

This study sought to identify quality factors that affect consumer satisfaction with green tourism in Taiwan by reviewing the literature on green tourism, the results of which can serve as a reference for businesses to develop green tourism products and for researchers to analyze the competition strategies adopted by businesses.

2. Literature review

Green tourism refers to a form of tourism in which those involved in the tourist experience (e.g., travelers, travel agencies, hotels, and destination managers) must respect nature and protect the environment in every aspect of the journey^{5,6}. Such tourism not only provides travelers with an enjoyable experience but also allows them to take action to protect the environment, thereby fostering a sense of environmental awareness. Thea⁷ indicated that in the green tourism system, the use and reuse of resources and the environment are facilitated under the principle of investment reduction and recycling, eventually forming an economic development pattern marked by efficient resource use and minimal environmental damage. By integrating tourism with environmental protection, green tourism enables consumers to simultaneously learn about and enjoy nature.

The Green Tourism Association of Taiwan defines green tourism as “a tourism form chosen by tourists that exerts minimum impact on the environment, whereby tourists experience their journey and enjoy nature and culture on the premise of energy saving and carbon emission reduction.” The association has proposed specific principles of green tourism, as follows⁷⁻¹⁰:

- (1) Food: Tourists should eat meals cooked with ecofriendly, organic, and in-season foods to reduce land pollution and energy consumption in transport.
- (2) Clothing: Tourists should wear ecofriendly, light, comfortable, and breathable clothes to save luggage space and energy consumption during transport and laundry.
- (3) Accommodation: Tourists should select green inns or hotels that emphasize environmental protection and energy saving, prioritize the use of local building materials, and employ local staff.
- (4) Transport: Tourists should take public transport, ride bicycles, walk, or select low-carbon and ecofriendly vehicles.
- (5) Education: Tourists should visit ecofriendly destinations and hold to the spirit of the three Rs (i.e., reduce, reuse, recycle) during the visit.
- (6) Recreation: Tourists should care about the environments, cultures, and customs of where they are by visiting a variety of locations such as cities, countryside, traditional settlements, farms, forests, fields, and wetlands.
- (7) Shopping: Tourists should purchase local agricultural products, crafts, and souvenirs, thereby increasing the income of local businesses and reducing their carbon footprint.

These principles affirm that green tourism in Taiwan emphasizes environmental protection and in-depth tourism, providing tourists with opportunities to familiarize themselves with the local natural environment and culture. Notably, unlike other countries, green tourism in Taiwan focuses more on emission reduction.

This study identified eight attributes of green tourism to verify the quality of green tourism. Table 1 presents the details of these eight attributes.

3. Research methods

3.1 Importance-Performance Analysis

Importance–performance analysis (IPA) was first proposed and performed by Martilla and James¹⁰. IPA measures the importance and performance of a service attribute associated with consumer satisfaction using a two-dimensional diagram, in which the Y-axis refers to importance, whereas the X-axis denotes performance (Fig. 1)¹¹⁻¹⁶.

The four quadrants involved in IPA have distinct definitions, as follows¹⁷⁻²³:

- (1) Keep up the good work (quadrant I): An attribute placed in this quadrant is highly emphasized by customers, and they are satisfied with its performance.
- (2) Concentrate here (quadrant II): An attribute in this quadrant is of high importance, but customers are not satisfied with its performance.
- (3) Low priority (quadrant III): An attribute in this quadrant is of low importance to customers, and customers are not satisfied with its performance.
- (4) Possible overkill (quadrant IV): An attribute in this quadrant is of low importance to customers, and they are satisfied with its performance.

By dividing service attributes into four quadrants, managers can optimize limited resources and determine service priorities, thereby improving customer satisfaction. IPA is a simple method for tailoring service attributes and widely applied to various fields to improve the service priority to meet customer needs²⁴⁻²⁸.

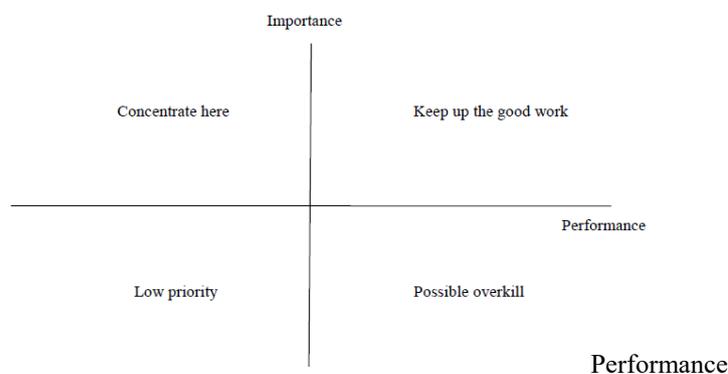


Fig. 1 Importance–performance analysis

3.2 Case study

Company X is one of the five largest travel agencies in Taiwan. This study regarded Company X as the research subject and evaluated its green tourism quality, and the results can serve as a reference for the company to improve its performance.

The questionnaire adopted in this study comprised eight items, and all items were rated using a 7-point Likert scale. The survey was conducted between January 10 and January 20, 2019, and the questionnaire was distributed to 415 customers of Company X. A total of 298 valid responses were collected, with a response rate of 72%.

4. Research results and discussion

This study considered the mean of importance (5.80) and mean of performance (5.81) from the survey results as the standard coordinates to judge the quality of each green tourism factor. The details are listed in Table 1.

The IPA results revealed that three attributes were placed in quadrant I (Keep up the good work), namely (2) *local specialties are cooked with local foods*, (4) *tour guides and local residents are dedicated to protecting the local environment*, and (7) *the tours designed by Company X do not distort local ecosystems*. This indicated that Company X performed well in these attributes, and they should continue to maintain their quality in these areas to build the company's image as a green tourism company.

Conversely, the attributes (5) *Company X lets tourists personally experience and understand local cultures* and (6) *Company X incorporates the concept of greening in local high-season tours or festivals* were placed in quadrant II (Concentrate here). This suggests that Company X should focus resources on improving these two attributes to overcome its weakness and enhance its competitiveness.

Additionally, two attributes, namely (1) *Company X drives tourists to the destination using a public transport vehicle or shuttle bus* and (8) *tour guides do not damage the environment during the journey*, were placed in quadrant IV (Possible overkill). Company X performed well in these areas, but these attributes are unlikely to help the company increase income. Therefore, Company X should cut spending for these two attributes and focus on other attributes.

Lastly, the other attribute (3) *tour guides thoroughly and professionally introduced the local ecosystem, history, and culture to tourists* was placed in quadrant IV (Low priority), indicating that the company received low performance ratings in this attribute, but customers did not value this attribute. Thus, Company X can continue to regard this as a low priority until additional resources are available. Table 1 describes the results in detail.

Table 1 Importance–performance analysis results of green tourism attributes

Item	Green tourism attribute	Importance	Performance	Competition strategy
1	Company X drives tourists to the destination using a public transport vehicle or shuttle bus.	5.7	6.1	Possible overkill
2	Local specialties are cooked with local foods.	5.9	6.2	Keep up the good work
3	Tour guides thoroughly and professionally introduce the local ecosystem, history, and culture to tourists.	5.5	5.4	Low priority
4	Tour guides and local residents are dedicated to protecting the local environment.	5.9	6.2	Keep up the good work
5	Company X lets tourists personally experience and understand local cultures.	6.2	5.5	Concentrate here
6	Company X incorporates the concept of greening into local high-season tours or festivals.	5.9	5.3	Concentrate here
7	The tours designed by Company X do not distort local ecosystems.	5.9	5.9	Keep up the good work
8	Tour guides do not damage the environment during the journey.	5.4	5.9	Possible overkill
Mean		5.80	5.81	

5. Conclusion

Because the development of green tourism in Taiwan is at the introduction stage, both governmental agencies and private companies currently avoid committing large amounts of resources to these products. Under this constraint, identifying the factors that can improve customer experiences and satisfaction is the key to developing the market for green tourism products.

This study proposed eight attributes of green tourism and used them to evaluate the performance of one company; the results can serve as a reference for the company to improve its performance.

The findings revealed that Company X had advantages in terms of attributes (2), (4), and (7), and the performance in these three aspects should be maintained. By contrast, Company X performed poorly in attributes (5) and (6). Therefore, the company should invest more resources in (5) and (6) to overcome its weaknesses and enhance its competitiveness.

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