A Structural Model to Examine How Destination Image, Attitude, and Motivation Affect the Future Behavior of Tourists

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A Structural Model to Examine How Destination Image, Attitude, and Motivation Affect the Future Behavior of Tourists

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This study examines a behavioral model of wetlands tourism using variables of destination image, attitude, motivation, satisfaction and future behavior for tourists at Cigu, Sihcao, and Haomeiliao in southwestern Taiwan. Empirical results indicate that destination image directly affects satisfaction and indirectly affects future behavior. Tourist attitude directly affects satisfaction and indirectly affects future behavior, while tourist motivation directly affects satisfaction and indirectly affects future behavior. Tourist satisfaction had a significant influence on future behavior, and satisfaction proved a significant mediating variable within this behavioral model.

Keywords attitude, destination image, future behavior, motivation, structural model

Wetlands are lands transitional between terrestrial and aquatic systems where the water table is typically above the land surface or the land is covered by shallow water (Mitsch & Gosselink, 1993). Wetlands provide many benefits to the environment and the local community such as biodiversity, wildlife habitat, flood protection, water quality protection, shoreline protection, groundwater recharge and discharge, aesthetics, recreation and environmental education.

Taiwan is surrounded by ocean and has a long coastline that offers varied natural scenery. The west coast has many wetlands commonly used as farms and fishponds. In recent years, some areas have been developed as recreational areas, such as Guandu, Gaomei, Haomeiliao, Cigu and Sihcao (see Figure 1; Zheng & Wang, 1998). The latter three areas are renowned for their rich and diverse birdlife and their associated lagoons and sandbars. Recently, these areas were developed into nature-based tourism sites.

Nature-based tourism is frequently used synonymously with alternative tourism programs, ecotourism, green travel, responsible travel, soft-tourism, cultural tourism and adventure travel. Nature-based tourism is a rapid-growth sector compared to general mass tourism (Fennell, 1999; Nyaupane, Morais, & Graefe, 2004). Following the definition of Ceballos-Lascurain (1996), our study defined nature-based tourism as tourism that directly depends on the use of natural resources in relatively undeveloped or undisturbed natural areas including scenery, topography, water features, vegetation, wildlife refuges and nature reserve areas. Nature-based tourism is giving rise to economic benefits from the
conservation of natural resources and directly assisting both local communities and nations in achieving sustainable environmental development (Fennell; Lewis, 2001; Silverberg, Backman, & Backman, 1996). For these reasons, nature-based tourism has become popular worldwide (Buckley, 2003; Mehmetoglu, 2007; Nyaupane et al., 2004; Shrestha, Stein, & Clark, 2007). Nature-based tourism is prospering in Taiwan in national parks, national forest recreation areas, national scenic areas and wetlands (Taiwan Tourism Bureau, 2008). The development of nature-based tourism (or ecotourism) is regarded as one of Taiwan’s most important government policies.
Determining the Future Behavior of Tourists

In Taiwan, studies examining nature-based tourism have discussed environmental attitudes of tourists toward wetland areas (Lee & Lin, 2001) and have profiled tourists visiting wetland areas (Kerstetter, Hou, & Lin, 2004). For example, Lin, Chen and Liu (2003) reported the relationships among destination image, satisfaction and behavioral intention in national scenic areas; Hwang, Lee, and Chen (2005) examined the relationships among tourist involvement, place attachment and interpretation service in national parks. Lee (2007) used satisfaction as the mediating variable and integrated a theory of planned behavior to develop a behavioral model for national forest recreation areas in Taiwan. This model indicated that tourist attitude, subjective norms and the perceived behavioral control significantly affected satisfaction and behavioral intention. These previous studies indicated that tourist behaviors can be explained by destination image, place attachment, activities involvement, tourist attitudes, subjective norms and perceived control behavior.

Issues and limitation, however, remain unexplored in the literature. First, few studies have examined the relationships among leisure experiences including satisfaction and future behaviors, or the influence of antecedent variables such as destination image, tourist attitude and tourist motivation. In addition, the behavioral model for nature-based tourism has not been fully assessed. Second, though wetlands tourism is an important and alternative form of tourism throughout the world, no empirical studies have examined its structural model. Our study was initiated to explore the characteristics of tourists visiting wetlands and to use variables such as destination image, attitude, motivation, satisfaction and future behavior of tourists in the assessment and discussion of a behavioral model of wetlands tourism in Taiwan.

Review of Literature

Nature-based tourists in their leisure may visit a particular site with preferred natural resources and attributes to achieve the desired nature-based recreation experiences. Their behavior provides information for assessing nature-based tourism demand and management. Therefore, discussing destination image, tourist attitude, motivation, satisfaction and the future behavior of tourists are important in developing research hypotheses concerning wetlands tourism.

Destination Image

The assessment of destination image can assist managers by identifying the strengths and weaknesses of their destination, helping predict tourists’ behavioral intentions and providing critical insights for managing and developing tourist destinations (Bigné, Sánchez, & Sánchez, 2001; Fakaye & Crompton, 1991). Destination image is typically defined as tourists’ overall perceptions of a specific destination (Fakaye & Crompton, 1991) or as their mental portrayal of the area (Alhemoud & Armstrong, 1996; Gallarza, Saura, & García, 2002). Destination image is multifaceted and consists of cognitive, affective and behavioral elements (Pike & Ryan, 2004; White, 2004). Researchers have used the multi-attribute approach in assessing destination image (e.g., Beerli & Mattin, 2004; Birgit, 2001; Chen & Tsai, 2007; Court & Lupton, 1997; Echtner & Ritchie, 1993; Lin et al., 2003). Others have assessed the overall destination using a single-item method (e.g., Baloglu & McCleary, 1999; Bigné et al., 2001).

Destination image is widely considered to be a key aspect of tourist decisions (Beerli & Martín, 2004; Bigné et al., 2001; Birgit, 2001; Castro, Armario, & Ruiz, 2007; Chen & Tsai, 2007; Gallarza et al., 2002). When tourists have generally positive perceptions or impressions of a destination, they are more likely to select that destination (Alhemoud
Moreover, destination image can positively affect on-site recreation experiences, satisfaction and future behavior (Bigné et al., 2001). In addition, certain perceptions of the attractiveness of a cultural tourism destination may lead tourists to develop an attachment to the place (Hou, Lin, & Morais, 2005).

**Tourist Attitude**

Tourist attitude describes the psychological tendencies expressed by the positive or negative evaluations of tourists when engaged in certain behaviors (Ajzen, 1991; Schiffman & Kanuk, 1994). Tourist attitudes comprise cognitive, affective and behavioral components (Unger & Wandermman, 1985; Vincent & Thompson, 2002). The cognitive response is the evaluation made in forming an attitude, the affective response is a psychological response expressing the preference of a tourist for an entity and the behavioral component is a verbal indication of the intention of a tourist to visit or use that entity. Attitudes predispose a person to act or perform in a certain manner as shown in studies of household recycling behavior (De Young, 1986; Vining & Ebero, 1990), pro-environmental behavior (Grob, 1995; Steel, 1996), and tourism behavior (Hrubes, Ajzen, & Daigle, 2001; Lee, 2007; Sparks, 2007). Tourist attitude is an effective predictor of tourist participation and satisfaction (Ragheb & Tate, 1993). According to the theory of planned behavior (Ajzen, 1985), behavioral intention is affected by attitudes, subjective norms and perceived behavioral controls toward behavior. The intention behind an attitude can affect external behaviors (Ajzen, 1991; Eiser & Pligt, 1988; Lee, 2007).

**Tourist Motivation**

When interpreting tourist behavior, tourist motivation can be considered the primary driver (Eagles, 1992; Fodness, 1994). Our study suggests that tourist needs and motivations are interrelated (Charters & Ali-Knight, 2002). According to Maslow’s (1943) hierarchy of needs, tourist needs are normally related to higher needs for self-esteem, self-actualization and social needs. Crompton (1979) developed the push–pull model of travel motivation, which identified push-and-pull effects on tourist destination choice and experiences. According to this model, the push force causes a tourist to leave home and seek some unspecified vacation destination, while the pull force compels a tourist toward specific destinations that are perceived as attractive because of their attributes (Kozak, 2002). Furthermore, tourists participate in tourism activities to satisfy their needs for relaxation, knowledge and escape and to develop social relationships (Charters & Ali-Knight, 2002; Crompton, 1979; Fodness, 1994; Iso-Ahola & Allen, 1982).

Understanding tourist motivation is complex and generally multifaceted (Crompton, 1979; Uysal, Gahan, & Martin, 1993). Researchers examining tourist motivation have used various measurements based on a number of different approaches. McIntosh and Gupta (1977) proposed four constructs of motivation: physical, cultural, interpersonal status and prestige. Fodness (1994) stated that tourism motivation can be measured by five functional segments: ego enhancement, knowledge, punishment minimization, self-esteem and reward maximization. In addition, many authors used constructs of push-and-pull motivations to assess tourist motivation in different tourism fields (Correia, Valle, & Moco, 2007; Jang & Wu, 2006; Yoon & Uysal, 2005). Tourist motivations also have been categorized into attraction and social motivations (Eagles, 1992), while Kerstetter et al. (2004) identified adventure, education and a holistic approach as the three factors of ecotourist motivation in their study of wetlands tourism. In nature-based tourist studies, Mehmetoglu (2007) reported
the motivation components to be nature, physical, novelty/learning, mundane everyday, social contact and ego/status. Moreover, tourism motivation is thought generally to include the constructs of cultural exploration, novelty regression, equilibrium recovery, known group socialization, external interaction and gregariousness at festival events (Chang, 2006; Crompton & McKay, 1997; Lee, 2000).

**Satisfaction**

Nature-based tourism is a multiphase paradigm comprising anticipation time, travel experience, on-site participation, return travel and recollection phases (Borrie & Roggenbuck, 2001). The tourism experience is also complex and temporal (Kane & Zink, 2004; Lee, Dattilo & Howard, 1994; Mannell & Iso-Ahola, 1987). If the attributes of tourism satisfy visitor needs, then tourists will have positive experiences. Overall tourist satisfaction positively correlates with the quality of on-site recreational tourist experiences (Tribe & Snaith, 1998). Consequently, satisfaction is a valid indicator of the quality of on-site recreational experiences (Lee, 2007; Mannell & Iso-Ahola, 1987; Yu & Lee, 2001).

Tourist satisfaction is a positive perception or feeling that tourists develop or acquire by engaging in recreational activities and is expressed as the degree of pleasure derived from such experiences (Beard & Ragheb, 1980). Tourist satisfaction also is important to tourism management because it influences destination choice (Cole & Crompton, 2003; Kozak & Rimmington, 2000) and future behaviors (Bigné et al., 2001; Cole, Crompton, & Willson, 2002; Cole & Scott, 2004; Lee, Yoon, & Lee, 2007; Lee, 2006, 2007; Yoon & Uysal, 2005).

Mannell and Iso-Ahola (1987) used data on satisfaction to measure psychological outcomes of leisure experiences. Typically, satisfaction is measured using one of two methods. The most common method applies multiitem scales to the constructs, such as recreational programming and professional service quality and adventure experiences in river tracing tours (Lee, 2006), and service quality, ecology, landscape and safety equipments in national forest recreation areas (Lee, 2005). In their study of tourists visiting the Korean demilitarized zone, Lee, Yoon and Lee (2007) compared overall tourist satisfaction with tourist expectation, taking into account the time and effort invested by the tourists. The alternative method used by many authors involves applying a single measure of overall satisfaction, which has been applied in studies of whitewater recreation (Whisman & Hollenhorst, 1998) and coastal resort tourism (Bigné et al., 2001) as well as visits to zoos (Tomas, Scott, & Crompton, 2002), rainforests (Cole & Scott, 2004) and national forest recreation areas (Lee, 2007).

**Future Behavior**

Repeat purchases, recommendations and positive word-of-mouth reflect consumer loyalty. Consumer loyalty is one of the most useful indicators for assessing marketing strategies (Engel, Blackwell, & Miniard, 2000). Tourism destinations, activities, and programs can be considered products, and the willingness of tourism consumers to recommend them and partake in positive word-of-mouth helps tourism managers assess their management strategies. Therefore, these variables frequently indicate future behavior and tourist loyalty (Baker & Crompton, 2000; Bigné et al., 2001; Cai, Wu, & Bai, 2004; Lee, Yoon, & Lee, 2007; Petrick, 2004; Um, Chon, & Ro, 2006; Yoon & Uysal, 2005). Moreover, loyal tourists are more likely to revisit tourism destinations.

Tourism studies have considered whether future tourist behavior can be predicted from the tourist satisfaction model. These studies have examined several different contexts such
as resort (Bigné et al., 2001), river tracing tour (Lee, 2006), pleasure tourism in Hong Kong (Um et al., 2006), Korean demilitarized zone (Lee, Yoon, & Lee, 2007), beach hotels (Yoon & Uysal, 2005) and in a forest setting (Lee, Graefe, & Burns, 2007). In this way, loyalty is considered an antecedent variable of satisfaction and future behavior.

Relationships among Image, Attitude, Motivation, Satisfaction and Future Behavior

Empirical studies carried out in New Mexico and Thailand indicated that destination image positively affects future behavior of tourists (Court & Lupton, 1997; Rittichainuwat, Qu, & Brown, 2001). For example, destination images significantly affect the satisfaction and future behavior of tourists staying at coastal resorts in Spain (Bigné et al., 2001), scenic coastal areas in Taiwan (Lin et al., 2003) and in Eureka Springs in the United States (Chi & Qu, 2008). Chen and Tsai (2007) ascertained that destination image directly affects the quality of the trip, and indirectly affects perceived value, satisfaction and future behavioral intentions of tourists visiting coastal destinations. The tourism literature, therefore, indicates that destination image is the antecedent of satisfaction and future behavior. However, the relationships among destination image, satisfaction and future behavior of wetland tourists have not been examined.

The theory of planned behavior is frequently used to study tourist attitudes. This theory has been used to examine various human behaviors to predict leisure choice (Ajzen & Driver, 1992), hunting intention (Hrubes et al., 2001; Rossi & Armstrong, 1999), choice of travel destination (Bamberg, Ajzen, & Schmidt, 2003; Lam & Hsu, 2006), and behavior of wine tourists (Sparks, 2007). Some studies have used this behavioral theory to argue that tourist attitude significantly affects behavioral intention (Ajzen & Driver, 1992; Bamberg et al., 2003; Hrubes et al., 2001; Rossi & Armstrong, 1999). On the other hand, some researchers have found no significant relationship between attitude and behavior intention (e.g., Lam & Hsu, 2006; Sparks, 2007). We argue in our study that attitude does affect behavioral intention in the tourism literature, and that these conflicting empirical results can be explained by the diversity of tourism behavior. Further work is needed to support this claim since studies of nature-based tourism rarely investigate the relationships between tourist attitudes and tourist behavior.

In addition, researchers using satisfaction as a mediating variable to modify the theory of the planned behavior have found that attitude significantly and directly affects satisfaction. Attitude also significantly and indirectly affects behavioral intention in behavioral model of tourism in isolated inland areas, river tracing tours, and national forest recreation areas (Lee, 2006, 2007; Yu & Lee, 2001). These studies describe the causal relationships among tourist attitude, satisfaction and behavioral intention for nature-based tourists. In contrast, a structural model linking tourist attitude, satisfaction and future behavior for tourists in wetlands tourism has not been discussed.

Tourist satisfaction is significantly affected by motivation, as shown in empirical studies of tourism in various contexts: sightseeing tourism in Washington State (Ross & Iso-Ahola, 1991), climbing trips on Ayers Rock (Fielding, Pearce, & Hughes, 1992), visits to international cultural festivals (Lee, Lee, & Wicks, 2004) and visits to farm resorts (Lin, 2005). However, in a study of tourism in Northern Cyprus, Yoon and Uysal (2005) reported that the push motivation did not significantly influences satisfaction, while the pull motivation directly and negatively affected satisfaction and indirectly and negatively affected destination loyalty. No empirical studies have examined the causal relationships between tourist motivation and satisfaction for wetlands tourism, and thus reexaming whether the above causal relationships exist in the behavioral model applied to wetlands tourism is interesting.
Tourist satisfaction results in increased numbers of satisfied tourists revisiting and recommending more destinations, which in turn promotes the sustainable development of tourism particularly in the areas of management and marketing (Söderlund, 1998). Further, satisfaction is affected by service quality (Baker & Crompton, 2000; Bigné et al., 2001; Cole et al., 2002; Cole & Scott, 2004; Lin et al., 2003; Osman, Cole, & Vessell, 2006), attitude (Lee, 2006, 2007; Ragheb & Tate, 1993; Yu & Lee, 2001), destination image (Bigné et al., 2001; Lin et al., 2003) and motivation (Fielding et al., 1992; Lin, 2005; Ross & Iso-Ahola, 1991).

A structural model of the relationships among service, satisfaction and behavioral intention is widely accepted among nature-based tourism researchers (Cole et al., 2002; Lee, Graefe, & Burns, 2004, 2007; Lin et al., 2003). These studies indicated that tourist satisfaction significantly affected behavioral intention of tourists to nature-based settings. Therefore, past research seems to support the idea that tourist satisfaction is the mediating variable in many behavioral models of nature-based tourism (Lee, 2007; Lee, Graefe, & Burns, 2004; Osman et al., 2006).

Research Hypotheses

Tourism researchers have discussed image, attitude, motivation, satisfaction and future behavior, as shown in the literatures review. However, few studies have simultaneously examined all variables and therefore the relationships among them to uncover behavioral models of nature-based tourism in wetlands. Thus, our study was undertaken with the following research hypotheses (also see Figure 2):

H1: Destination image will significantly and directly affect tourist satisfaction (H1−1) and indirectly affect future behavior (H1−2).
H2: Tourist attitude will significantly and directly affect tourist satisfaction (H2−1) and indirectly affect future behavior (H2−2).
H3: Tourist motivation will significantly and directly affect tourist satisfaction (H3−1) and indirectly affect future behavior (H3−2).
H4: Tourist satisfaction will significantly and directly affect future behavior.

Method

This study focused on three famous nature-based recreation areas in southwestern Taiwan: Cigu wetland (23°05’N, 120°05’E), which has the largest lagoon in Taiwan; Sihcao wetland (23°00’N, 120°10’E), a wildlife refuge area; and Haomeiliao wetland (23°22’N, 120°05’E), a nature reserve area (also see Figure 1).

Development of the Research Instrument

A questionnaire was developed for tourists visiting the Cigu, Sihcao and Haomeiliao wetlands. It included measures of destination image, attitude, motivation, satisfaction, future behavior, tourism characteristics and background information of tourists. In April and May 2005, the pretest was conducted at the Cigu wetland. The questionnaires were presented to randomly sampled tourists via a systematic sampling method (i.e., one tourist of every 10 was sampled) at the Wanchiryo sandbar in Cigu during the daytime. A total of 179 usable questionnaires were collected. An item analysis was conducted to improve the questionnaire instructions and assess the Likert scales. The final revision of the questionnaires was based on the above analysis, comments of eight tourists concerning the comprehensibility of the
questionnaire and feedback from a wetland tourism manager in Cigu. The final questionnaire comprised the six parts described below.

The questions regarding destination image were designed based on the studies of Court and Lupton (1997), Birgit (2001) and Lin et al. (2003), with destination image made up of natural scenery (three items), social-cultural aspects (one item) and recreational activities (two items). A 7-point Likert scale (7 = strongly agree, 1 = strongly disagree) was applied to the six items measuring destination image.

Attitude is composed of cognition, affection and conation. Therefore, 11 items containing cognition, affection and conation were developed based on the studies of Engel et al. (2000) and Vincent and Thompson (2002). A 7-point Likert-scale (7 = strongly agree, 1 = strongly disagree) was used to measure respondent attitudes toward participating in wetlands tourism.

Adapting the typology of basic functions proposed by Fodness (1994) to the context of wetlands in Taiwan, we developed 10 items to measure tourist motivation. Respondents answered these items using a 7-point Likert scale (7 = strongly agree, 1 = strongly disagree).
Twelve items were designed to measure satisfaction. One item was used to measure overall satisfaction, and 11 were used to assess tourist multi-aspects of tourist satisfaction. These questions were based on the studies of Manning (1986) and Lee (2005) and were designed to measure satisfaction with natural landscapes, service and recreational equipment. Responses were reported using a 7-point Likert scale (7 = strongly satisfied, 1 = strongly dissatisfied).

Three items (willingness to revisit, willingness to recommend to others and positive word-of-mouth to other potential tourists) were used to measure future behavior based on the studies of Baker and Crompton (2000), Bigné et al. (2001) and Petrick (2004). Responses were indicated on a 7-point Likert scale (7 = strongly agree, 1 = strongly disagree).

Travel characteristics included travel companions, travel information and the frequency of visiting wetlands. Demographic variables included gender, age, marital status, education, occupation, residence, income and membership in conservation groups.

**Sampling and Surveying**

The survey was conducted in the summer, autumn, winter and spring (i.e., five days were sampled from each season) during a one-year period to ensure an adequate collection of tourist samples in the wetlands. The sampling areas were positioned at sites where tourists would be sure to visit such as the Wanchiryo sandbar at Cigu and the wharfs at Sucho and Haomeiliao. Tourists were sampled as they departed via the exit areas of the selected locations using a systematic sampling method (i.e., one tourist of every 20 was sampled) during the daylight hours. A small gift was given to respondents when they finished the questionnaire, which typically took approximately eight minutes to complete. The questionnaire survey was performed from June 2005 to April 2006. A total of 1,300 questionnaires were handed out with 51 refusals and 5 incomplete questionnaires, which left a total of 1,244 useable questionnaires. The survey had a response rate almost of 96%, which is higher than rates for traditional mail or e-mail surveys (Cook, Heath, & Thompson, 2000). This response rate probably reflects the use of on-site questionnaires, friendly data collection assistants and assistants who carefully checked the questionnaires to ensure they were properly completed. The Cronbach alpha scores for the latent variables of destination image, tourist attitude, tourist motivation, tourist satisfaction and future behavior were, .87, .90, .92, .93, and .89, respectively. All scores exceeded the benchmark of .70 (Nunnally & Bernstein, 1994), indicating that the instrument had good reliability.

**Data Analysis**

The collected data were statistically analyzed using SPSS 12.0 for Windows (SPSS, 2003). Attitude and satisfaction involved a large number of measurement variables. Moreover, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy yielded .87 and .92, respectively. Bartlett’s test of sphericity showed significant values for attitude (\(\chi^2 = 7727, df = 55, p < .001\)) and satisfaction (\(\chi^2 = 9570, df = 55; p < .001\)). Thereafter, an exploratory factor analysis of the multiitem dimensions of attitude and satisfaction was performed to reduce the number of variables as the measurement indicators for the path analysis of the overall model. Principal axis factoring was used as recommended for behavioral research seeking to extract the factors and the developing factor in structural equation modeling (SEM; Iacobucci, 2001; Preacher & MacCallum, 2003). After applying this factor analysis, only factors with eigenvalue exceeding 1 were retained. An oblimin with Kaiser normalization rotation was used for axis rotation since the resulting factors were assumed to correlate.
The proposed model was examined using SEM to test both the theoretical relationships in the model and the overall model fit the survey data. LISREL 8.52 for Windows was used for the SEM analysis. All parameters were estimated using the method of maximum likelihood estimation. Hypotheses were tested simultaneously to determine the direction and significance of relationships. For this purpose, a path analysis was conducted using variables that simultaneously considered all the hypotheses.

Results

Respondents’ Profile

The demographic profiles of the respondents are shown in Table 1. The distribution of tourists included approximately equal numbers of males and females; 64% were married and 36% were unmarried; 77% were between 21 and 50 years old; 57% had a college degree and 27% had received a high school education; 23% were professionals and 16% were storekeepers; 36% had monthly incomes of NT$20,001 to 40,000 and 25% had incomes of NT$40,001 to 60,000; 26% lived in the Yunlin, Chiayi and Tainan areas; and 21% lived in the Taipei metropolitan area.

The travel characteristics of the respondents included: 41% were accompanied by family members, 38% by friends or colleagues, 21% by society or corporation members and 1% traveled alone. About 36% obtained travel information from friends and relatives, 22% from brochures or magazines, 17% from a travel agent, 15% from the Internet and 10% from television or broadcasts. About 53% were visiting the site for the first time, 26% for the second time, 13% for the third time and 8% for the fourth time.

Descriptive Analysis of Destination Image, Attitude, Motivation, Satisfaction and Future Behavior of Tourist

Basic descriptive statistics for all items of destination image, tourist attitude, tourist motivation, satisfaction and future behavior are listed in Table 2. All the value items obtained mean scores above the mid-scale point of 3.5. The highest value of the destination image item was ecological interpretation. The highest value for the attitude item was affection for ecological guides. The highest value on the motivation item was being close to nature. Overall satisfaction averaged 5.69 ± 1.10. The satisfaction scores indicated that tourists visiting the wetlands had a high level of satisfaction. The highest value on the future behavior was willingness to revisit.

Results of Exploratory Factor Analysis of Tourist Attitude and Tourist Satisfaction

Three factors were extracted from the items measuring tourist attitude. The first factor was named affection (eigenvalue = 5.45, variance = 46.21%) and included affection for the service provider, ecological guides and accompanying tourists. The second factor was named cognition (eigenvalue = 1.33, variance = 8.66%) and included cognition of wildlife habitat, geographic environment, the importance of soil and water conservation, historical background and environmental conservation. Finally, the third factor was named conation (eigenvalue = 1.20, variance = 7.81%) and included “despite the high travel cost, I will visit the wetlands,” “despite the time spent, I will visit the wetlands,” and “I would like to visit the wetlands again.”

Two factors were extracted from the items measuring tourist satisfaction. The first factor was named wetlands tourism experiences (eigenvalue = 5.95, variance = 54.07%). This
### TABLE 1 Demographic Profile of the Respondents in Wetlands

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>612</td>
<td>49.2</td>
</tr>
<tr>
<td>Female</td>
<td>632</td>
<td>50.8</td>
</tr>
<tr>
<td>Marital status</td>
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<tr>
<td>Unmarried</td>
<td>452</td>
<td>36.3</td>
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<tr>
<td>Married</td>
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<td>63.7</td>
</tr>
<tr>
<td>Age (years)</td>
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<td></td>
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<tr>
<td>16–20</td>
<td>123</td>
<td>9.9</td>
</tr>
<tr>
<td>21–30</td>
<td>314</td>
<td>25.2</td>
</tr>
<tr>
<td>31–40</td>
<td>384</td>
<td>30.9</td>
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<tr>
<td>41–50</td>
<td>263</td>
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<tr>
<td>51–60</td>
<td>136</td>
<td>10.9</td>
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<tr>
<td>≥ 61</td>
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<tr>
<td>Education level</td>
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<td>Junior high school or below</td>
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<tr>
<td>High school</td>
<td>335</td>
<td>26.9</td>
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<tr>
<td>University or college</td>
<td>712</td>
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<tr>
<td>Graduate school</td>
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<td>11.0</td>
</tr>
<tr>
<td>Occupation</td>
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<tr>
<td>Office worker or teacher</td>
<td>160</td>
<td>12.9</td>
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<tr>
<td>Agriculturist, farmer, fisherman</td>
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<td>1.8</td>
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<tr>
<td>Laborer</td>
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<tr>
<td>Storekeeper</td>
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<td>Professional</td>
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<tr>
<td>Service industry</td>
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<td>Housewife</td>
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<td>13.1</td>
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<tr>
<td>Student</td>
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<td>Retired or none</td>
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<tr>
<td>Monthly income (NT $*)</td>
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<td>≤ 20,000</td>
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<td>23.8</td>
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<tr>
<td>20,001–40,000</td>
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<td>40,001–60,000</td>
<td>309</td>
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<td>60,001–80,000</td>
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<td>31</td>
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</tr>
<tr>
<td>≥ 100,001</td>
<td>55</td>
<td>4.4</td>
</tr>
<tr>
<td>Residence</td>
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<td></td>
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<td>Taipei Metropolitan area</td>
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<td>21.0</td>
</tr>
<tr>
<td>Taoyuan, Hsinchu, Miaoli</td>
<td>183</td>
<td>14.7</td>
</tr>
<tr>
<td>Taichung, Changhua, Nantou</td>
<td>257</td>
<td>20.7</td>
</tr>
<tr>
<td>Yunlin, Chiayi, Tainan</td>
<td>321</td>
<td>25.8</td>
</tr>
<tr>
<td>Kaohsiung, Pingtung</td>
<td>204</td>
<td>16.4</td>
</tr>
<tr>
<td>Yilan, Hualien, Taitung</td>
<td>17</td>
<td>1.4</td>
</tr>
<tr>
<td>Other areas</td>
<td>1</td>
<td>0.1</td>
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*1 US$ = 33.09 NT$ (4 October 2007).
### TABLE 2  Means and Standard Deviations of Destination Image, Tourist Attitude, Tourist Motivation, Satisfaction and Future Behavior for Nature-based Tourists

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
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<tr>
<td><strong>Destination image</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ecological landscapes</td>
<td>5.62</td>
<td>1.16</td>
</tr>
<tr>
<td>Diversity of environment</td>
<td>5.66</td>
<td>1.15</td>
</tr>
<tr>
<td>Species diversity</td>
<td>5.61</td>
<td>1.16</td>
</tr>
<tr>
<td>Leisure fisheries</td>
<td>5.51</td>
<td>1.23</td>
</tr>
<tr>
<td>Ecological interpretation</td>
<td>5.87</td>
<td>1.17</td>
</tr>
<tr>
<td>Ecological experiences</td>
<td>5.86</td>
<td>1.13</td>
</tr>
<tr>
<td><strong>Tourist attitude</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cognition of historical background</td>
<td>4.42</td>
<td>1.40</td>
</tr>
<tr>
<td>Cognition of geographic background</td>
<td>4.98</td>
<td>1.37</td>
</tr>
<tr>
<td>Cognition of wildlife habitat</td>
<td>5.64</td>
<td>1.37</td>
</tr>
<tr>
<td>Cognition of soil and water conservation</td>
<td>5.68</td>
<td>1.28</td>
</tr>
<tr>
<td>Cognition of environment conservation and ecotourism</td>
<td>5.88</td>
<td>1.13</td>
</tr>
<tr>
<td>Affection for the ecological guides</td>
<td>6.22</td>
<td>1.12</td>
</tr>
<tr>
<td>Affection for accompanying tourist</td>
<td>5.73</td>
<td>1.13</td>
</tr>
<tr>
<td>Affection for service provider</td>
<td>5.98</td>
<td>1.06</td>
</tr>
<tr>
<td>I would like to visit the wetland again</td>
<td>5.28</td>
<td>1.31</td>
</tr>
<tr>
<td>Despite the high travel cost, I will visit the wetlands</td>
<td>5.13</td>
<td>1.37</td>
</tr>
<tr>
<td>Despite the time spent, I will visit the wetlands</td>
<td>5.20</td>
<td>1.34</td>
</tr>
<tr>
<td><strong>Tourist motivation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To be close to the nature</td>
<td>6.06</td>
<td>1.06</td>
</tr>
<tr>
<td>For mangrove watching</td>
<td>5.78</td>
<td>1.21</td>
</tr>
<tr>
<td>For wildlife watching</td>
<td>5.94</td>
<td>1.10</td>
</tr>
<tr>
<td>To experience the wetland environment</td>
<td>5.90</td>
<td>1.14</td>
</tr>
<tr>
<td>To learn about the wetland</td>
<td>5.86</td>
<td>1.12</td>
</tr>
<tr>
<td>For ecological education</td>
<td>6.03</td>
<td>1.04</td>
</tr>
<tr>
<td>To seek novelty</td>
<td>5.70</td>
<td>1.23</td>
</tr>
<tr>
<td>For physical health</td>
<td>5.08</td>
<td>1.44</td>
</tr>
<tr>
<td>To relax</td>
<td>5.99</td>
<td>1.11</td>
</tr>
<tr>
<td>To increase kinship or friendship</td>
<td>5.97</td>
<td>1.11</td>
</tr>
<tr>
<td><strong>Satisfaction</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nature and landscape</td>
<td>5.86</td>
<td>1.03</td>
</tr>
<tr>
<td>Wetland biodiversity</td>
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</tr>
<tr>
<td>Wildlife watching</td>
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</tr>
<tr>
<td>Lagoon’s recreation experiences</td>
<td>5.84</td>
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</tr>
<tr>
<td>Sandbar’s recreation experiences</td>
<td>5.68</td>
<td>1.25</td>
</tr>
<tr>
<td>Service quality</td>
<td>6.02</td>
<td>1.04</td>
</tr>
<tr>
<td>Ecological guides</td>
<td>5.95</td>
<td>1.07</td>
</tr>
<tr>
<td>Numbers of encounters with other tourists</td>
<td>5.41</td>
<td>1.19</td>
</tr>
<tr>
<td>Safety equipments</td>
<td>5.69</td>
<td>1.22</td>
</tr>
<tr>
<td>Ecotourism program</td>
<td>5.41</td>
<td>1.24</td>
</tr>
<tr>
<td>Travel cost</td>
<td>5.15</td>
<td>1.34</td>
</tr>
<tr>
<td>Overall satisfaction</td>
<td>5.69</td>
<td>1.10</td>
</tr>
<tr>
<td><strong>Future behavior</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Willingness to revisit</td>
<td>5.28</td>
<td>1.20</td>
</tr>
<tr>
<td>Willingness to recommendation to others</td>
<td>5.20</td>
<td>1.21</td>
</tr>
<tr>
<td>Positive word-of-mouth to others</td>
<td>5.11</td>
<td>1.27</td>
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</tbody>
</table>
TABLE 3 The Factor Loadings, Average Variance Extracted and Composite Reliability of the Measurement Model

<table>
<thead>
<tr>
<th>Variables</th>
<th>Measured items</th>
<th>Factor loadings</th>
<th>Average variance extracted*</th>
<th>Composite reliability**</th>
</tr>
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<tbody>
<tr>
<td>Image</td>
<td>Ecological landscapes</td>
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<td>.54</td>
<td>.88</td>
</tr>
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<td></td>
<td>Diversity of environment</td>
<td>.83</td>
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<tr>
<td></td>
<td>Species diversity</td>
<td>.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Leisure fisheries</td>
<td>.68</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Ecological interpretation</td>
<td>.60</td>
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<td></td>
<td>Ecological experiences</td>
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<td></td>
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<td>Attitude</td>
<td>Affection</td>
<td></td>
<td>.56</td>
<td>.79</td>
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<td></td>
<td>Cognition</td>
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<tr>
<td></td>
<td>Conation</td>
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<td>Motivation</td>
<td>To be close to the nature</td>
<td>.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>For mangroves watching</td>
<td>.83</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>For Wildlife watching</td>
<td>.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>To experience the environment</td>
<td>.86</td>
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<td></td>
</tr>
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<td></td>
<td>To learn about the wetland</td>
<td>.82</td>
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<td></td>
<td>For ecological education</td>
<td>.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>To seek novelty</td>
<td>.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>For physical health</td>
<td>.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>To relax</td>
<td>.57</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>In To increase kinship or friendship</td>
<td>.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction</td>
<td>Overall satisfaction</td>
<td>.79</td>
<td></td>
<td>.87</td>
</tr>
<tr>
<td></td>
<td>Wetlands tourism experiences</td>
<td>.85</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Recreational program</td>
<td>.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Future behavior</td>
<td>Willingness to revisit</td>
<td>.79</td>
<td></td>
<td>.90</td>
</tr>
<tr>
<td></td>
<td>Willing to recommend to others</td>
<td>.92</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Positive word-of-mouth to others</td>
<td>.87</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*: Average variance extracted = \( (\Sigma \lambda^2) / \left[ \Sigma \lambda^2 + \Sigma (\theta) \right] \).

**: Composite reliability = \( (\Sigma \lambda)^2 / [ (\Sigma \lambda)^2 + \Sigma (\theta) ] \).

(Jöreskog & Sörbom, 1996).

factor included wetland biodiversity, lagoon’s recreation experiences, wildlife watching, nature and landscape and sandbar’s recreation experiences. The second factor was named recreational programs (eigenvalue = 1.03, variance = 9.36%), and included a wetlands ecotourism program, safety equipments, travel cost, number of encounters with other tourists, ecological guides and service quality.

**Validity of the Measurement Model**

An acceptable measurement model should assess both convergent and discriminant validity (Bagozzi & Yi, 1988). Table 3 lists the factor loadings, average variance extracted and the
composite reliability for the variables. These statistics were necessary to ascertain the measurement model fit for the three study sites. All composite reliability values exceeded .60, which demonstrated the high internal consistency of latent variables. When the average variance extracted is used to evaluate convergent and discriminant validity, the criterion is that the average variance should exceed .50 (Bagozzi & Yi, 1988; Hair et al., 1998). In our study, the average variance extracted for all the latent variables exceeded .50. We concluded that our instrument had adequate convergent and discriminant validity.

Structure Model

Many statistics can be applied to assess the goodness-of-fit of the structure model (McDonald & Ho, 2002). The most commonly employed statistic is $\chi^2$. The $\chi^2$ goodness-of-fit test evaluates the adequacy of the theorized model’s creation of a covariance matrix and estimated coefficients compared with the observed covariance matrix. However, since the sample size may affect the value of $\chi^2$, a large sample size can render this test insufficient for adequately assessing model fitness (Hu & Bentler, 1999). Many researchers have divided the value of $\chi^2$ by degrees of freedom to accommodate large sample sizes (McDonald & Ho, 2002). Carmines and MacIver (1981) suggested that an $\chi^2$/df rating of less than 5 is favorable for a large sample. Other statistics such as a normed fit index (NFI), comparative-fit index (CFI), root mean square error of approximation (RMSEA) and standardized root mean square residual (SRMR) have also been applied to assess model fitness (Jöreskog & Sörbom, 1996; McDonald & Ho, 2002). In our study, the $\chi^2$ test ($\chi^2 = 3382.3, df = 264, p < .05$) and $\chi^2$/df ratio could not determine the goodness-of-fit of the model, perhaps as a result of its large sample size and the complexity of the model (Anderson & Gerbing, 1982). Nevertheless, the other goodness-of-fit statistics including NFI (.96), CFI (.96), RMSEA (.097), and SRMR (.058) indicated an acceptable fitness of the model.

Findings of the Relationships among the Constructs

The direct, indirect and total effects of the latent independent variables on the dependent variables of wetlands are listed in Table 4. The path diagram for the final model of the wetlands is illustrated in Figure 3. The path analysis revealed that destination image affected satisfaction directly ($\gamma_{11} = .27, t = 9.33, p < .001$) and future behavior indirectly ($\gamma_{11} \times \beta_{21} = .18, t = 8.87, p < .001$). Thus, hypothesis 1 was tested and accepted. For hypothesis 2, tourist attitude affected satisfaction directly ($\gamma_{12} = .41, t = 8.92, p < .001$) and future behavior indirectly ($\gamma_{12} \times \beta_{21} = .27, t = 8.52, p < .001$) and the hypothesis was tested and accepted. Tourist motivation affected satisfaction indirectly ($\gamma_{13} = .33, t = 9.14, p < .001$) and future behavior indirectly ($\gamma_{13} \times \beta_{21} = .22, t = 8.71, p < .001$), resulting in hypothesis 3 being accepted. The squared multiple correlation (equivalent to $R^2$) was .82 for satisfaction, indicating that 82% of the variance in satisfaction can be attributed to destination image, tourist attitude and tourist motivation. Moreover, tourist attitudes had the strongest direct effect on satisfaction followed by tourist motivation and destination image. Satisfaction affected future behavior directly ($\beta_{21} = .67, t = 20.68, p < .001$), and thus hypothesis 4 was accepted. The squared multiple correlation was .44 for future behavior, indicating that 44% of the variance in future behavior can be attributed to tourist satisfaction. In this way, satisfaction played a significant mediating role in this behavioral model of wetlands tourism.

Discussion

This study examined the causal relationships among destination image, tourist attitude, tourist motivation, satisfaction and future behavior in wetlands tourism. Assessing this
TABLE 4 Direct, Indirect and Total Effects of the Structural Model in Wetlands

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Dependent variables</th>
<th>Dependent variables</th>
<th>Hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exogenous variables</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Image</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct effect</td>
<td>.27***</td>
<td>N.A.</td>
<td>Accepted</td>
</tr>
<tr>
<td>Indirect effect</td>
<td>N.A.</td>
<td>.18***</td>
<td>Accepted</td>
</tr>
<tr>
<td>Total effect</td>
<td>.27***</td>
<td>.18***</td>
<td>Accepted</td>
</tr>
<tr>
<td>Attitude</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct effect</td>
<td>.41***</td>
<td>N.A.</td>
<td>Accepted</td>
</tr>
<tr>
<td>Indirect effect</td>
<td>N.A.</td>
<td>.27***</td>
<td>Accepted</td>
</tr>
<tr>
<td>Total effect</td>
<td>.41***</td>
<td>.27***</td>
<td>Accepted</td>
</tr>
<tr>
<td>Motivation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct effect</td>
<td>.33***</td>
<td>N.A.</td>
<td>Accepted</td>
</tr>
<tr>
<td>Indirect effect</td>
<td>N.A.</td>
<td>.22***</td>
<td>Accepted</td>
</tr>
<tr>
<td>Total effect</td>
<td>.33***</td>
<td>.22**</td>
<td>Accepted</td>
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<tr>
<td>Endogenous variables</td>
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<tr>
<td>Satisfaction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct effect</td>
<td></td>
<td>.67***</td>
<td>Accepted</td>
</tr>
<tr>
<td>Indirect effect</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
</tr>
<tr>
<td>Total effect</td>
<td></td>
<td>.67***</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

N. A.: It was not possible to determine direct or indirect effects.

***: p < .001(t > 3.29).

Behavioral model will contribute to the further development of previously proposed but unexamined behavioral models. Some of these important constructs have previously been discussed in the leisure or tourism literature, but no previous studies have examined the structural relationships among these variables simultaneously. This study, then, contributes to the literature on behavioral models of wetlands tourism in particular, and of nature-based tourism in general.

A major finding from this study was that destination image is a critical influence on tourist satisfaction in wetlands as reported in previous tourism studies (Bigné et al., 2001; Lin et al., 2003). Our study indicated that destination image significantly and directly affects satisfaction (H1−1) and indirectly affects future behavior (H1−2). Satisfaction, therefore, is a significant mediator between destination image and future behavior. This empirical result is also in agreement with many previous studies based on structural equation modeling analysis in different fields such as coastal resorts and coastal scenic areas (Bigné et al., 2001; Lin et al., 2003). Thus, the relationships among destination image, satisfaction, and future behavior can be examined in most tourism settings in addition to wetlands tourism. This examination can help to predict tourist demand. Wetland tourists who develop a positive perception of wetlands tourism can experience greater recreational satisfaction and can show greater loyalty in their future behavior than tourists who do not develop this perception. Moreover, since the behavioral model presented in this study tested whether destination image is the antecedent variable of satisfaction and future behavior (e.g., recommendation, positive word-of-mouth), wetland managers or marketers can focus on specific aspects of wetlands perception such as the ecological experience and interpretation service to promote wetlands tourism.

Further, empirical results revealed that tourist attitude significantly affected satisfaction (H2−1), thereby supporting the behavioral model of leisure participation (Ragheb &
FIGURE 3 Final model on relationships among destination image, attitude, motivation, satisfaction and future behavior in Wetlands.

***: p < 0.001 The standardized solution of the factor loadings are shown in Table 3.

Tate, 1993). Moreover, this result is also in agreement with tourism studies employing the modified theory of planned behavior (Lee, 2006, 2007; Yu & Lee, 2001). The empirical results suggest that satisfaction level and likelihood of future behavior increase with positive tourist attitudes (H2−2). Thus, the relationships among tourist attitude, satisfaction and future behavior can be appropriately applied to examine the relevant behavioral model, an advance that will contribute to the nature-based tourism literature. Based on this causal relationship, tourist attitudes toward wetlands tourism is an important predictor for recreation satisfaction and future behavior.

Our study also uncovered that tourist motivation significantly affects satisfaction (H3−1), which supporting the findings of previous studies that examined sightseeing tourists visiting Washington (Ross & Iso-Ahola, 1991), tourists climbing Ayers Rock (Fielding et al., 1992), a leisure behavioral model of university students (Ragheb & Tate, 1993), and tourists visiting farm resorts (Lin, 2005). However, research examining the causal relationships among motivation, satisfaction, and future behavior of tourists is sparse. This study demonstrated that tourist motivation significantly and directly affects satisfaction (H3−1).
Determining the Future Behavior of Tourists

and indirectly and significantly affects future behavior (H₃−2), suggesting that applying the behavioral model of wetlands tourism yields important and innovative findings. The findings of this study show promise for advancing the understanding of causal relationships in other tourism fields.

Finally, this study shows that tourist satisfaction can effectively predict future behavior in wetlands (H₄) similar to previous tourism studies (Bigné et al., 2001; Cole et al., 2002; Lee, Yoon, & Lee, 2007; Lee, Graefe, & Burns, 2004; Lin et al., 2003; Yu & Lee, 2001; Yüksel & Yüksel, 2007). The findings of this study indicate that, as found in most studies of leisure and tourism, satisfaction is the most important predictor of future behavior of wetlands tourism. The willingness to return and make recommendations to others increases with satisfaction. Further, our study found satisfaction to be a mediating variable in assessing the behavioral model of wetlands tourism, again supporting the findings of earlier studies (Cole et al., 2002; Lee, Yoon, & Lee, 2007; Lee, Graefe, & Burns, 2004; Osman et al., 2006; Yoon & Uysal, 2005). Therefore, satisfaction plays a significant mediating role in the behavioral model of wetlands tourism. Consequently, managers or marketers can advertise satisfaction as a way to promote wetlands tourism and sustain the competitiveness of their destination. In addition, since wetlands tourism is typically a form of nature-based tourism, preserving and protecting the environment are important. Destination image, tourist motivation and tourist attitude are strongly related to the wetlands ecosystem.

Conclusion

Destination image, tourist motivation and tourist attitude were important predictors of tourist satisfaction and future behavior of wetlands tourism. Few studies have assessed the behavioral model of wetlands tourism. This study used the destination image, tourist attitude, tourist motivation, satisfaction and future behavior to examine the behavioral model. Our findings, which advance the understanding of behavioral models of wetlands tourism, suggest that destination image directly affects tourist satisfaction and indirectly affects tourists’ future behavior. Tourist attitudes directly affect satisfaction and indirectly affect tourists’ future behavior, while tourist motivation directly affects satisfaction and indirectly affects future behavior. Finally, satisfaction significantly affects future behavior and is a significant mediating variable in the behavioral model of wetlands tourism applied here.

Being close to nature was the most frequently cited motivation for visiting the study sites, and ecological interpretation was the most frequently cited aspect of destination image. Affection for ecological guides was the most frequently cited aspect of tourist attitude. These results suggest that the attractiveness of nature and the opportunity to gain environmental education about wetlands should be emphasized for developing wetlands tourism.

Moreover, based on the behavioral model used here, satisfaction and future behavior were significantly influenced by tourist attitudes, tourist motivation and destination image. Consequently, managers of wetlands tourism can develop nature-based tourism experiences such as unique landscapes, lagoon and sandbar activities, mangrove and waterbird watching and environmental education. Such activities are likely to increase tourist satisfaction, willingness to revisit destinations, recommendations to others to visit and positive word-of-mouth. Consequently, our findings suggested that recreation managers can protect wetland environment and biodiversity, increasing tourist satisfaction and enhancing future behavior, thereby achieving the sustainable development of wetlands tourism.

Respondents were randomly sampled over a one-year period to examine the behavioral model of wetlands tourism. However, this study assessed only cross-sectional data and
did not examine long-term tourist behavior that could contribute to the common method variance. To rigorously examine this behavioral model, a long-term study analyzing tourist data for multiple years is needed.

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