

U.S. ECOTOURISTS' TRAVEL EXPERIENCES AND SATISFACTION REPORTED ON
THE WORLD WIDE WEB: A CASE OF COSTA RICA ECOLOGES

By

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To my beloved family for their unconditional support and optimism

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Abstract of Thesis Presented to the Graduate School
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The purpose of this study is to discover the travel experiences reported by U.S. ecotourists staying at ecolodges in ecotourism destinations and to understand the issues contributing to ecotourists' satisfaction level with their travel experiences. The key areas of research included categorization of the travel experiences and stays at ecolodges and identification of the factor structure of ecotourists' satisfaction and dissatisfaction. Eleven ecolodges in Costa Rica were selected and 373 online traveler reviews posted on user-generated website Tripadvisor® were extracted for content data analysis, followed by the quantitative analysis of coded textual data.

In total, 26 attributes related to the ecotourists' travel experiences and stays at ecolodges were exhibited. These attributes were grouped in 7 categories. Categories included ecolodge location, ecolodge settings, rooms, ecolodge service, food, value for money and nature. The categorization of ecotourists' travel experiences and stays at ecolodges was in accordance with previous literature; particularly with Chan and Baum (2007a & 2007b) in terms of ecotourists' participation in nature based activities, having basic accommodation needs, and socialization with ecolodge service staff and other

guests. The identified categories also demonstrated the proposed structure of tourist experience by Quan and Wang (2004): “nature” and “ecolodge settings” constructed peak touristic experience; “room,” “ecolodge service,” and “food” constructed supporting consumer experience; and, “ecolodge location” and “value for money” constructed daily routine experience.

A statistical approach was proposed to classify identified attributes into the typology of hotel attributes proposed by Cadotte and Turgeon (1988): criticals, satisfiers, dissatisfiers, and neutrals. The classification of factors constituting ecotourists’ satisfaction/dissatisfaction highlights the areas of performance ecotourism management executives should maintain or rectify. Future research suggestions include expansion of the number of negative reviews to possibly cover all of the negative issues and validity of the study results using the online user-generated qualitative data.

CHAPTER 1 INTRODUCTION

Tourism activities and the substantial growth in this area are widely recognized. The rapid development is one of the most remarkable economic and social phenomena of the past century. World Tourism Organization (UNWTO) reveals that the number of international tourist arrivals evolves from 25 million in 1950 to 880 million in 2009, corresponding to an average annual growth rate of 6.5%. Countries all over the world witness the benefits brought by tourism development: increasing job opportunities, increasing gross national product, cultural exchange, and to name a few. This is the particular case for developing countries. Sharpley and Telfer (2002) claimed that tourism development in poorer countries meant the movement of travelers from developed to developing countries, a possible means of redistribution of wealth. Despite the positive influences, the negative ones quickly grow the problems: environmental pollution, social conflicts, or over-crowdedness in tourism destinations. Honey (2008) pointed out that economic benefits of tourism were marginal; its social and environmental costs were high; much of the money did not stay in the destination (leakage); and, the only benefit to the local community was found in low-paying service employment such as hospitality workers. On the other side, an increasing propensity of travelers' taking life-enriching vacations involving nature, outdoors, and education emerged (Charters, 1999). The 1998 survey of 3,342 U.S. households reported that nearly a half (48.1%) had included nature-based activities in their last vacation and 15% had stated that they had planned the most recent trip, in which nature-based activities accounted for the majority of the vacation time (Bruskin Glodring Research, 1999; cited in Honey, 2008).

Ecotourism promotes the nature based tourism activities, environmental conservation by educating tourists, and returning the tourism related benefits to the local communities in ecotourism destinations. Ecotourism was officially defined by The International Ecotourism Society (TIES) as well as widely defined by ecotourism researchers:

Ecotourism is responsible travel to nature areas that conserves the environment and improves the welfare of local people. (TIES, 1990)

Ecotourism is a sustainable, non-invasive form of nature-based tourism that focuses primarily on learning about nature first-hand, and which is ethically managed to be low-impact, non-consumptive, and locally oriented... typically occurs in natural areas, and should contribute to the conservation of such areas. (Fennel, 2007, p. 24)

Since the 1990s, ecotourism has been globally growing 10%-34% per year in demand (Mastny, 2001), three times faster than the tourism industry as a whole in 2004 (UNWTO press release, 2004). The Tourism Network rated ecotourism as one of the fastest-growing sectors in the tourism industry, with an annual growth rate of 5% worldwide, representing 6% of the world gross domestic product and 11% of all consumer spending (tourismknowledge.com). Ecotourism is globally regarded a key strategy in response to travelers' demand for authentic experience involving nature and culture. For example, Australia has made remarkable accomplishment in ecotourism development over the past few years: 600 operators developed ecotourism products in well-known nature tourist icons such as the Great Barrier Reef, Uluru, and the Tasmanian wilderness area (Weaver, 2001). Costa Rica, Ecuador, Tanzania, Zanzibar, Kenya, and South Africa are typical examples of developing countries promoting ecotourism. Northwest China is also an example of an increasingly recognized

ecotourism destination in late 1990s, providing the opportunity to visit and live among the country's traditional nomadic ethnic groups (Weaver, 2001).

Travelers who want to be involved in nature and local culture at certain nature-based tourism destinations are usually referred as "ecotourists." The exact definition of ecotourists is unavailable yet (Wight, 2001). The Travel Industry Association of America (TIA) and National Geographic Traveler reported that there had been 55 million American tourists attracted to destinations where the forms of sustainable tourism were promoted to enhance conservation of environment, culture, aesthetics, heritage, and the well-being of local residents in 2002 (Kerstetter, Hou, & Lin, 2004). Wight (2001) suggested that ecotourists were relatively a richer population, having a higher disposable income, well traveled, well educated, independent, mature, and seeking an alternative vacation experience (in contrast to mass tourism).

Ecolodge is an important industrial sector in the ecotourism market by largely providing ecotourism experience. It offers natural resource oriented ecotourism activities and opportunities for learning about the environment (Lai and Shafer, 2005). Notable examples of these ecolodges include, but are not limited to, Lapa Rios Rainforest Ecolodge in Costa Rica, Chan Chich Lodge in Belize, The Lodge at Pico Bonito in Honduras, and Morgan's Rock Hacienda and Ecolodge in Nicaragua. Ecotourists staying at ecolodges typically have the immediate access to nature reserves surrounding the accommodation and a variety of nearby nature based attractions where they explore local flora and fauna, view wildlife, and participate in nature based activities. Despite the fact that not all of the ecotourists stay at ecolodges, customers of this

lodging segment present a sizable tourist market and an appropriate group to study the demand for ecotourism. Definition of an ecolodge was provided:

Ecolodge is a nature-dependent tourist lodge that meets the philosophy and principles of ecotourism. (Russell, Bottrill, & Meredith, 1995, p. 147)

Lastly, internet is a major source of travel information. It is particularly true for ecotourists. Roughly two-thirds of Americans research and plan travel online and approximately the same amount book online (imediaconnection.com). Online reviews by strangers were believed more trustful in planning the trips than glossy travel brochures, accounting for 25% of consumers versus 13% for used travel programmes and 11% for used magazines and newspaper supplement (newmediatrendwatch.com). In contrast to the traditional mass tourism market that is overwhelmed by marketing and promotional materials of destinations, lodges, attractions, and transports, ecotourism market has not yet developed a mature distribution of marketing and advertising channels ecotourists can collect enough information to make decisions. Using internet as a communication medium at all points in the ecotourism chain was suggested by the World Ecotourism Summit (Giro, 2002).

Statement of the Problem

Despite the constant growth of literature on tourist experience (Cohen, 1979; MacCannell, 1973; Dann, 1977; Mannell Seppo & Roger, 1987), Quan and Wang (2004) pointed out an unsolved issue in the area of tourist experience research: "What are the components that constitute the tourist experience per se? Is the tourist experience single-dimensional or multi-dimensional (p.297)?" To answer these questions, the authors proposed a conceptual model of structure of tourist experience, in which peak touristic experience, supporting consumer experience and daily routine experience were

integrated, followed by an illustration of food consumption during the trips. It was suggested that the proposed model could be valid in the analysis of a wider range of business sectors in tourism for example with hotels, transports, attractions, and entertainments providing experience related consumption. To confirm the validity of this proposed conceptual model, a further study in a different service context is necessary. In order for any ecotourism business to separate itself from competition in the marketplace, it has to deliver high quality of ecotourism products and services that fulfill the needs and wants of ecotourists. Customer satisfaction should be measured and managed (Kristensen, Martensen, & Gronholdt, 1999). Pizam, Neumann, & Reichel (1978) suggested, "By indentifying the significant dimensions of tourist satisfaction, the tourism practitioner and travel researcher can sensitively analyze the causes of general satisfaction/dissatisfaction and rectify them accordingly (p.321)." Current ecotourist research emphasizes on several areas including market segmentation (Ballantine & Eagles, 1994; Meric & Hunt, 1998), travel behavior patterning (Wight, 1997; Meric and Hunt, 1998, Hvenegaard, 2002), realized benefits (Pratt, 1992; Squire, 1994; Zurick, 1995; Wight, 1997; Palacio, 1997), and motivation (Eagles, 1992; Wight, 1997; Meric and Hunt, 1998; Hvenegaard, 2002; Kerstetter, Hou, & Lin, 2004). However, limited research has attempted to measure ecotourists' travel experiences and focus on satisfaction, which is an area essential for the long-term success of ecotourism products (Page and Dowling, 2002).

The quantitative findings by Blamey and Hatch (1992), published in an occasional paper, suggested that friendliness/helpfulness of the staff (86% very/somewhat satisfied) had been the individual element giving nature-based tourists most satisfaction, followed

by information about the natural environment (84%), the number of guides on tour (84%), and quality of sites (82%); the overall size of tour had topped the drivers of dissatisfaction (Cited in Weaver, 2001). The completeness of attributes concerning satisfaction/dissatisfaction is untested. To ensure the representativeness of attributes used to measure ecotourists' satisfaction, an exploratory qualitative analysis is necessary. Chan and Baum (2007a) conducted an exploratory study among ecotourists staying at an ecolodge in Sabah, Malaysia. Satisfiers and dissatisfiers with the ecotourism experience were derived from the textual responses to semi-structured questions. The findings may not necessarily be generalized to the population at large due to the sampling limitation. An exploratory qualitative study of ecotourists' satisfaction with their travel experiences by the use of improved research methodology will both offer practical knowledge to be applied to destination marketing and product improvement and generalize findings, extending the relevance and contribution to the academic knowledge surrounding ecotourism.

Consumers compliment to express satisfaction and complain to express dissatisfaction. The fact that consumers take the time to voice suggests that the mentioned performance of a product or service is salient in the post-use evaluation process (Cadotte and Turgeon, 1988; Johnston, 1995; Oh and Parks, 1997; Jones, Lee-Ross, & Ingram, 1997; Fournier and Mick, 1999; Pizam and Ellis, 1999). Cadotte and Turgeon (1988) happened to find a pattern of responses of a 1978 lodging customer survey and then an underlying framework of consumer satisfaction was proposed. Some attributes (dissatisfiers) of the lodging could be the source of dissatisfaction while others (satisfiers) could be the source of satisfaction. A third group of attributes (criticals)

could be the source of both satisfaction and dissatisfaction. The final set (neutrals) was suggested having little effect on neither satisfaction nor dissatisfaction. The authors suggested that the applicability of the proposed pattern was unknown beyond the restaurant and lodging industry. Other studies are clearly needed to confirm the theoretical and managerial implication of proposed concepts.

The most frequently used marketing research methods to understand travelers' feelings and thoughts regarding travel experiences in tourism and hospitality are surveys (e.g., exit interviews at transportation) and guest comment cards (e.g., guest feedback forms left on the restaurant tables and in hotel rooms). Both of them ask travelers to assess satisfaction based on feature oriented rating scales with their experiences. These methods are however plagued by poor response rate (Crotts, Mason, & Davis, 2009) and accessing limited information from the close end questions (Fournier and Mick, 1999; Crotts et al., 2009). Internet and the emergence of web communities are changing all that rapidly. "Web 2.0" or "user-generated content" allows website users to change website content and to interact with other users, in contrast to non-interactive websites where users passively view information. Typical examples of user-generated content websites include travel review websites (e.g., TripAdvisor®) and travel blogs (e.g., TravelPod®). Online user-generated content provides opinions, reviews, and travel advice by real travelers. It spreads the effect of word-of-mouth that is paramount to the service industry. Hospitality researchers insist that consumer-created reviews of businesses are the information having substantial impact on accommodation decisions (Gretzel & Yoo, 2008; Schmallegger & Carson, 2008; Ye, Law, & Gu, 2009; Vermeulen & Seegers, 2009). The essentially self-reported travel

experience is given freely, with no format imposed on them by neither practitioners nor researchers. There are no financial strings attached to travelers by service providers, either. Travelers spontaneously relate information that matters to them or they consider would be of interest to others when posting reviews or blogs. For these reasons, the author believes that using this accessible, credible, and readily available user-generated information for analysis has high potential and applies this approach to study ecotourists' travel experiences and satisfaction.

Purpose of Study

The purpose of this study is to discover the travel experience components represented by ecotourists' stays at ecolodges and to understand the issues contributing to ecotourists' satisfaction level. Specifically, the research plans to: a) categorize the travel experiences and stays at ecolodges in ecotourism destinations, by examining the online traveler reviews posted on user-generated website and b) understand the issues contributing to satisfaction/dissatisfaction by analyzing the reviews posted by both satisfied and dissatisfied ecotourists.

Theoretical Rationale

Tourist Experience

Tourist experience was widely discussed together with travel motivation. Cohen (1972) asserted that tourist experience combined a degree of novelty with a degree of familiarity, which was the security of old habits with the excitement of change. Tourists travel for changes and novelty at an exotic destination. However, most tourists still need something familiar to be around, for example, foods, service standards, accommodation amenities, and language. MacCannell (1973, p14) stated that "tourists enter tourist areas precisely because their experiences there will not, for them, be routine...tourists

often do see routine aspects of life as it is really lived in the places they visit, although few tourists express much interest in this.” The author also suggested that the way tourists had tried to get in with the natives was to look for authentic experience, perceptions, and insights. Dann (1977) indicated that tourist experience was a result of “push” and “pull” factors. To illustrate, tourists are “pulled” by the features of a certain tourism destination (e.g., sunshine, beach, and cuisine); meanwhile, they are “pushed” by the intrinsic motives (e.g., escape from daily routines, constraints, and profane responsibilities). Dann insisted that tourist experience was oriented by anomie and ego-enhancement. Mannell and Iso-Ahola (1987) suggested “escaping from routine and stressful environments” and “seeking recreational opportunities” were two motivational forces interplaying to realize the psychological benefits of leisure and tourist experience.

Quan and Wang (2004), however, pointed out the unsolved issues among the literature on tourist experience: “What are the components that constitute the tourist experience per se? Is the tourist experience single-dimensional or multi-dimensional?” They proposed a conceptual model in which tourist experience was composed of three dimensions: peak touristic experience, supporting consumer experience, and daily routine experience. Peak touristic experience (e.g., escape from daily routine/constraints/profane responsibilities, pursuit of novelty/change/exotic experience) is the travel experience “purified” from daily life. Tourists are, on the other hand, treated completely consumers who are served by tourism industry and there is commercial exchange relationship between tourists and industry suppliers. The consumption of tourism products and service is tourists supporting consumer experiences. In addition, tourists must eat, sleep, and interact with other people, all of which are the elements of

daily routine experience. Quan and Wang clarified the difference between peak touristic experience and supporting consumer experience: "Overall, the peak touristic experience is in sharp contrast to the daily experience... the supporting consumer experience is mainly characterized by extension, and sometimes by intensification, of the daily experience (p.300)." They are interchangeable. For instance, food could not only be the extension of comfort at home but a motivational force (e.g., wine tourism, food festivals), which constitutes the peak touristic experience. The authors indicated that satisfaction with tourist experience relies on mutual support and reinforcement between these dimensions. For example, satisfaction cannot be generated when their peak experience, coming from tourist attractions and activities, are dissatisfying, even if the supporting consumer experience, such as consumption of food and accommodation, are satisfying. In a similar vein, tourist experience can be spoiled when tourists are dissatisfied with the accommodation facilities and services, even if attractions and activities are satisfying. The proposed model has conceptually differentiated the dimensions and provided a better way to understand the relationship between these dimensions. The model might serve as a referential structure of the components of total tourist experience with ecotourism.

Satisfaction Theories

Expectation Confirmation Theory (Oliver, 1997) states that satisfaction is a continuing comparison between what was expected before purchase and the actual level of product/service acquisition. If a product outperforms pre-purchase expectations, post-purchase satisfaction will result; if a product falls short of expectations, the consumer is likely to be dissatisfied. It is a psychological concept involving the feeling of well-being and pleasure resultant from the consumption of an appealing product and/or

service (World Tourism Organization, 1985). Pizam and Ellis (1999) introduced both weighted and non-weighted compensatory models of customer satisfaction. The weighted compensatory model presumes that each attribute will be loaded an importance measure, based on which consumers make their satisfaction and choice judgment. Non-weighted compensatory model presumes that customers make trade-offs among attributes in the decision-making process: dissatisfaction with one attribute could be compensated by satisfaction with another. The traded-off attributes might be unimportant or irrelevant to customers' needs. For example, the overall satisfaction with nature based travel experiences could be highly rated if travelers enjoy interacting with nature, even though a nature-based tourism destination is hard to access. The accessibility of this destination is traded-off with the nature interaction experience. In non-weighted compensatory model, customers set the minimum acceptable level of certain important attributes and make satisfaction judgment.

Herzberg's motivation-hygiene theory of job satisfaction (Two-factor theory)

Herzberg's motivation-hygiene theory of job satisfaction asserts that satisfaction and dissatisfaction are different constructs; the satisfiers/motivators and dissatisfiers/hygiene factors are two significantly independent sets of factors (Herzberg, Mausner, & Snyderman, 1959). The presence of dissatisfies/hygiene factors will not necessarily cause satisfaction but its absence results in dissatisfaction. The fulfillment of satisfiers/motivators leads to satisfaction but its absence might not generate dissatisfaction. For instance, dissatisfiers/hygiene factors (e.g., good rapport with a supervisor, salary, working conditions and environment) need to be met to avoid dissatisfaction, but they do not necessarily contribute to one's satisfaction with the job.

Employees need the presence of satisfiers/motivating factors (e.g., opportunities for professional growth) to be satisfied at the work place.

Proposed typology of hotel attributes contributing to satisfaction

Cadotte and Turgeon (1988) developed the typology of hotel attributes based on the findings of a 1978 survey interviewing the lodge executives of the American Hotel and Motel Association. The authors proposed that some attributes (dissatisfiers) were salient in their potential to cause dissatisfaction while other attributes (satisfiers) were salient in their potential to cause high levels of satisfaction. Others (criticals) have the capability to cause both dissatisfaction and high satisfaction, and some (neutrals) seem to elicit no response. Similar to the rationale of Herzberg's Two-Factor Theory, dissatisfiers will generate dissatisfaction if they are absent or performed below the minimum acceptable level. Their presence, however, will not necessarily lead to satisfaction. For example with the accuracy of bill, one might not think about the bill issue when he arrives at the hotel; he will not complain until he has to deal with the incorrect charges. Thus, the minimum performance of these dissatisfiers must be maintained, but efforts to achieve high performance on these attributes may not be essential. Satisfiers are issues generating the strong positive feelings and satisfaction, but the absence of such issues will not necessarily make people feel bad or dissatisfied. For example, a hotel can easily stand out because of the helpfulness of its employees, not only trying best to accommodate customers but providing extra information. However, most hotels will not be blamed if their employees are just doing right but not outstandingly. Criticals represent factors that are the source of both satisfaction and dissatisfaction. "The hotel/motel (especially the guest room) is one's home away from home. . . . at the heart of the business (Cadotte and Turgeon, 1988, p. 78)." Neutrals

refer to the factors that are of relatively less importance to customers, being less frequently mentioned. Cadotte and Turgeon concluded that: dissatisfiers included “price of rooms and meals, speed of service, availability of parking, availability of accommodations, check-out time, adequacy of credit, accuracy of bill”; satisfiers included “helpful attitude of employees, neatness of establishment, convenience of location, management’s knowledge of service, quantity of service, spaciousness of establishment”; criticals included “cleanliness of establishment, quality of service employee knowledge and service, quietness of surroundings”; and, neutrals included “responsiveness to complaints, variety of service, uniformity of appearance of establishment, employee appearance, hours of operation, quality of advertising, overbooking, quality of advertising, travel congestion in establishment (p. 77).” Due to the preliminary nature of this analysis, the validity of suggested typology of attributes generating satisfaction/dissatisfaction needs to be tested. This research aims at seeing if Cadotte and Turgeon’s proposition and proposed factor pattern explaining satisfaction could be supported.

Research Questions

The guiding research questions addressed in this study were:

1. What are the components constituting the ecotourists’ travel experiences and stay at ecolodges reported by ecotourists themselves? (RQ1)
2. What are the factors that increase satisfaction or generate dissatisfaction among ecotourists staying at ecolodges in ecotourism destinations? (RQ2)
3. Is there a statistical method that can assist in classification of ecolodge attributes with respect to their influence on ecotourists’ overall satisfaction with their travel experiences and stay at ecolodges? (RQ3)

CHAPTER 2 LITERATURE REVIEW

This section addresses the current literature on ecotourism, consumer satisfaction, user-generated content, and their extension in tourism and recreation research. The covered ecotourism topics include the operational definition of ecotourism, consumer trends, market segmentation, ecotourism motivations, and consumer perceived ecotourism experience. Tourist satisfaction and hotel customer satisfaction theories were discussed as well as were the salient empirical research findings. User-generated content topics include definition of user-generated content, user-generated content development and tourism application, and discussion of user-generated content and word-of-mouth effects.

Ecotourism

Ecotourism Definition

Great efforts were put into defining ecotourism operationally (Ceballos-Lascurain, 1987; Butler, 1990; Fennell & Eagles, 1989; Boo, 1991; Farrell & Runyan, 1991; Wight, 1993; Wall, 1994; Place, 1995; Sirakaya, Sasidharan, & Sonmez, 1999). The International Ecotourism Society (TIES) defined ecotourism (1990): “Responsible travel to natural areas that conserves the environment and improves the welfare of local people (ecotourism.org).” The definition was supplemented by six major principles: 1) minimize impact; 2) build environmental and cultural awareness and respect; 3) provide positive experiences for both visitors and host; 4) provide direct financial benefits for conservation; 5) provide financial benefits and empowerment for local people; 6) raise sensitivity to host countries’ political, environmental, and social climate. More recently, Fennell (2007, p. 24) summarized ecotourism as “a sustainable, non-invasive form of

nature-based tourism that focuses primarily on learning about nature first-hand, and which is ethically managed to be low-impact, non-consumptive, and locally oriented. . . . typically occurs in natural areas, and should contribute to the conservation of such areas.”

Consumer Trends and Market Segmentation

Ecotourists’ activity defines ecotourism (Meric and Hunt, 1998). Ballantine and Eagles (1994) defined ecotourists by a couple of criteria: traveling to learn about nature, visiting wilderness or undisturbed areas in natural surroundings, and time commitment (i.e., 33% of one’s vacation time spent in the field). Kerstetter et al. (2004) reported the results of a recent study by the Travel Industry Association of America (TIA, 2002) and National Geographic Traveler (“Geotourism study examines”, 2002), indicating that there had been 55 million tourists in the United States who were attracted to destinations where the environment, culture, aesthetics, heritage, and well-being of its residents are sustained or enhanced by tourism.

Travelers’ commitment to ecotourism and the centrality of an ecotourism experience in their vacation choice determines the type of ecotourists (Wight 1996; Acott, La Trobe, & Howard, 1998; Meric and Hunt, 1998, McKercher, 2001). Laarman and Durst (1987) were the first to distinguish hard nature tourists from soft nature tourists determined by tourists’ levels of interest and degrees of physical rigor. Lindberg (1991) defined four basic types of nature tourists: 1) hard-core nature tourists who represent scientific researchers or members of tours designed for education, removal of litter, and etc.; 2) dedicated nature tourists who take specific trips to see protected areas and who want to understand local natural and cultural history; 3) mainstream nature tourists who visit the Amazon, the Rwandan gorilla park, or other destinations primarily

to take an unusual trip; 4) casual nature tourists who partake of nature incidentally as part of a broader trip. Acott et al. (1998) termed the deep and shallow ecotourism and the deep and shallow ecotourists were defined. Toward the “deep” direction of the continuum, travelers are highly involved, having the specialization in nature-based tourism and care for the host destinations. Toward the “shallow” direction, travelers are occasionally involved or exposed to nature-based touristic activities, having occasional concern for the environment and local communities. McKercher (2002) indicated that different types of ecotourists had different needs. The author divided ecotourists into two groups: “specialist” (“experienced”) and “generalist.” It is important to categorize the ecotourists, provided that different types of tourists are attracted by different activities, according to various ecotourism researchers (Weaver, Glenn, & Rounds, 1996; Wight, 1997; Meric & Hunt, 1998).

The majority of ecotourists in North America were reported within the age group of 25–54, 67% of general ecotourists and 76% of experienced ecotourists; nearly a quarter of 55+ aged people in both segments; participation in ecotourism between genders was almost the same in the North American market; 75% of general and 96% of experienced ecotourists had educational degrees or at least some college education (HLA/ARA, 1994; cited in Weaver, 2001). Household incomes were higher for ecotourists than for travelers overall (McKercher, 2001; Wood, 2002; Weaver, 2001). Dolnicar, Crouch, and Long (2008) reviewed 39 articles in research environmentally friendly tourists (EFTs). They concluded that EFTs were those who were more educated, earned more money and were interested in learning.

Most of experienced ecotourists (83%) in North America had an ecotour of 8 days or longer but the trip duration is destination-specific (Wight, 1996). The average length of stay for all tourists in Nepal was 9.3 nights per visit while trekkers to Nepal stayed an average of 25.8 nights (Parker, 1993). World Tourism Organization (UNWTO) indicated that American ecotourists stayed abroad somewhat longer on their travels, with a median number of 12 nights outside of the United States versus only nine nights for the average U.S. international air travelers. Internet was indicated as a major source of travel information for ecotourists (Lai and Shafer, 2006). UNWTO reported that Canadian ecotourists invested a significant amount of effort collecting pre-trip information; internet was one of the primary sources (Giro, 2002).

Motivation

Eagles (1992) found that Canadian ecotourists were much more likely to be interested in the destinations that contained wilderness, lakes and streams, rural area, parks, mountains and oceanside, compared with general travelers. They were much more likely to have motives of putting stress on physical activity, meeting people with similar interests and seeing the maximum possible in the time available. Wight (1996) cited the survey findings of HLA Consultants and the ARA Consulting Group (1994) that the top one and two listed reasons and motivations of ecotourism by North American ecotourists were “scenery and nature” and “new experience/places.” Ayala (1996) noted that those tourists becoming ecotourists were increasingly motivated by the environmental health and integrity of natural and cultural resources in an overseas destination. They wanted to contribute to the preservation and enhancement of destination environment.

Wight (2001) further concluded that motivations that differentiated ecotourists from more mass travelers included: uncrowded locations, remote, wilderness areas, learning about wildlife, nature, learning about natives, cultures, community benefits, viewing plants and animals, and physical challenge, based on several sources (Crossley and Lee, 1994; Wight, 1996). Learning about nature, being physically active, and meeting people with similar interests were noted by Holden and Sparrowhawk (2002). Kerstetter et al. (2004) indicated that the largest percentage of visitors to coastal wetland areas in Taiwan were motivated by “to be in natural setting,” “to observe the ecological landscape,” “to be with family or friends,” and “to improve physical health.”

Ecotourism Experience

UNWTO report of U.S. ecotourism market indicated that wildlife viewing and being in wilderness areas, followed by seeing rare animal species, visiting archeological sites, visiting indigenous people, bird watching, and participating in marine and other water activities, are most important to ecotourists. UNWTO suggested that U.S. ecotourists had a strong preference for excellent local guides, small groups, uncrowded destinations, and meaningful educational content to the trips. Chan and Baum (2007b) conducted the in-depth interviews among ecotourists who had stayed in an eco-lodge in Malaysia. The research revealed that ecotourists perceived ecotourism as participation in eco-activities (e.g., wildlife viewing, nature-based tours, and local culture), having basic accommodation and facilities, and acquiring information (e.g., knowledge about nature and the environment). The finding of ecotourists’ desire for involvement with nature and culture was in accordance with ecotourists’ travel motives documented by previous scholars. By conducting the other qualitative study, Chan and Baum (2007a) reported that ecotourists’ travel experiences were multidimensional—participation in the

ecotourism activities, in which they physically engaged in the natural environment, interaction with the site service staff, socialization with other ecotourists, and the information acquired during the visit.

Consumer Satisfaction

Tourist Satisfaction

Following Oliver's Expectancy Confirmation Theory (1977), Pizam et al. (1978) defined tourist satisfaction: "Tourist satisfaction is the result of the interaction between a tourist's experience at the destination area and the expectations he had about that destination. When weighted sum total of experiences compared to the expectations results in feelings of gratification, the tourist is satisfied; otherwise he is dissatisfied with the feelings of displeasure (p. 315)." Pizam et al. (1978) pointed out that tourist satisfaction measurement was complex due to tourism products' heterogeneity nature. An example of the complexity is that tourists will or have to make the satisfaction judgment on a medley of services such as hotels, restaurants, shops, attractions, and etc. (Chi and Qu, 2007). In order to measure tourist satisfaction practically, it is essential to identify the separate components and dimensions of tourist satisfaction, followed by ranking the importance of each dimension (Pizam et al, 1978). Researchers suggested that the satisfaction level of individual elements/attributes of all the products/services that made up the travel experience, such as accommodation, weather, natural environment, social environment, and etc., would contribute to the overall satisfaction (Lounsbury and Hoopes, 1985; Pizam and Ellis, 1999). Pizam et al. (1978) empirically derived eight factors of tourist satisfaction with a specific destination area – Cape Cod, Massachusetts, which was famous for summer beaches, from a survey of 685 vacationing tourists. The authors also inferred the importance rankings of these factors

using the factor-analytic approach. These factors were: beach opportunities, cost, hospitality, eating and drinking facilities, accommodation facilities, campground facilities, environment, and extent of commercialization. Kozak (2002) addressed the factors contributing tourist satisfaction toward an off-season holiday destination, based on a survey of 220 tourists in Mallorca, Spain. Factors such as “destination attractiveness,” “tourist attractions and facilities,” and “facilities and services at the destination airport” were found critical to increase overall satisfaction. “Availability of English language” was a minor one. These results were destination-specific. Further studies were suggested to address the satisfying factors with a destination corresponding to its features.

To identify the separate components and dimensions of satisfaction, tourism and recreation researchers adapted Herzberg’s theory to identify satisfiers and dissatisfiers (Balmer & Baum, 1993; Crompton, 2003; and Chan & Baum, 2007). Balmer and Baum (1993) proposed applying Herzberg’s factors to hotel guest satisfaction in Cyprus—regarding pricing, facilities (e.g., cleanliness, size, variety), “freebies”/extra as the dissatisfiers/hygiene factors but regarding recognition by staff, sense of belonging, flexibility, and service orientation as the true satisfiers/motivators. Crompton (2003) proposed a model illustrating the relationship between event maintenance attributes, motivator attributes, and social-psychological benefits. He noted that the superior event maintenance attributes (e.g., weather, rest room, parking, information service, vendor interaction) and the event motivator attributes (e.g., entertainment, activities, arts and crafts, educational programs) would lead to satisfaction and the realization of desired social-psychological benefits. Otherwise, inferior levels in one or both result in dissatisfaction. Chan and Baum (2007) interviewed ecolodge guests. They concluded

that experience gained from the natural environment and attractions, participation in ecoactivities, and knowledgeable guides and staff service orientation could be classified as the satisfiers/motivators; lodge maintenance, riverboat cruise, environmental issue, and journey to the lodge could be classified as the dissatisfiers/hygiene factors.

Hotel Customer Satisfaction

Unlike material products or pure services, most hospitality experiences are an amalgam of products and services. Therefore it is possible to say that satisfaction with a hospitality experience such as a hotel stay or a restaurant meal is a sum total of satisfactions with the individual elements or attributes of all the products and services that make up the experience. (Pizam and Ellis, 1999, p.329)

The perceived quality of service is one of the primary drivers of customer satisfaction (Kristensen et al., 1999). Parasuraman, Zeithaml and Berry (1988) defined service quality—“degree and direction of discrepancy between consumers’ perceptions and expectations.” This definition is similar to consumer satisfaction theory asserting in measuring the gap between a customer’s expectation and perception of what is actually delivered (Oh and Parks, 1997). To better understand the structure of service quality that matters to hospitality customers, service quality researchers developed the dimensional base used by customers (Jones, Lee-Ross, & Ingram, 1997). A variety of lists of service quality elements have been proposed in the accommodation literature (Lewis, 1984; Parasuraman, Zeithaml, & Berry, 1985; Callan, 1989). Lewis (1984) proposed a list of service quality elements: ambience, amenities, check in and check out, F&B facilities, food quality, housekeeping, location, luxury, maintenance, modern room and bath, noise, other guests, parking, prices, reservation system, restrictive policies, room décor and comfort, room size and layout, security, staff attitude, and staff professionalism. Parasuraman et al. (1985) developed a ten-point framework of hotel

service quality: tangibles, reliability, responsiveness, communication, credibility, security, competence, courtesy, understanding/knowing customers, and access. Callan (1989) further developed the elements to fit small country hotels and guest houses. The proposed hotel service quality variables by Lewis (1984) and Callan (1989) are particularly valuable in that they had combined the opinions of both supplier (hotel manager) and demand (customer) sides. Bearing these elements in mind assists the development of the dimensional structure constructing ecotourists' eco-experience represented by staying at ecolodges.

Attitude as Satisfaction Measurement

Expectation Confirmation Theory has extensive influence on the measurement of satisfaction; most customer satisfaction studies have been conducted within the comparison standards (CS) paradigm—comparison between consumption experience and expectation (Fournier and Mick, 1999). This is also the case in the tourism and hospitality literature. The scale-point answer questions are widely used to evaluate satisfaction. Fournier and Mick (1999) agreed with Yi (1990) that satisfaction was generally an attitude-like judgment following a purchase act or based on a series of consumer-product interactions. The authors gave up the solely feature-oriented rating scales and started using a nontraditional approach of lengthy and unstructured in-home interviews to explore and describe satisfaction from the firsthand viewpoints of persons involved.

From the qualitative focus group interviews, Giese and Cote (2000) concluded that consumers offered the attitudinal responses of varying intensity in expressing satisfaction feelings. Attitude is “a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor (Eagly and Chaiken,

1993, p.1).” Giese and Cote (2000) provided the attitudinal terms representing the range of intensity of consumers’ affective responses toward satisfaction levels such as “like love,” “excited,” “euphoria,” “thrilled,” “very satisfied,” “pleasantly surprised,” “relieved,” “helpless,” “frustrated,” “cheated,” “indifferent,” “relieved,” “apathy,” and “neutral (p.1).” Breckler and Wiggins (1989) confirmed the capability of verbal measures to represent aspects of attitude. Osgood, Suci and Tannenbaum (1957) claimed that the basic bipolar continuum with “a neutral or zero reference point” could ascribe the attitudes such as the tendencies of “approach versus avoidance” and “favorable versus unfavorable (p. 189).”

The User-Generated Content

User-generated content is any type of message, communication, or media that is created by individuals and freely accessible for informational or entertainment purposes. Its subject matter may be newly formed by the creator or may be a rendition of, or influenced by, an existing subject (i.e., imagery, narrative, personality, or brand). (Haven, 2007, p.2)

User-generated Content and Tourism and Hospitality

Online consumer reviews were thought of constituting a valuable source of management information for organizations and of affecting brand-perceptions and customer relations (Papathanassis and Knolle, 2010). Dellarocas (2003) asserted that new customers could be acquired and current customers could be retained through the positive online reviews whilst negative feedback could inhibit customer acquisition, which hurts the business. Online reviews posted by travelers have been ever more available and used to inform travel-related decisions (Gretzel and Yoo, 2008). The authors interviewed 1,480 TripAdvisor® users through a web-based survey, asking the questions of trip planning and use and impact of online travel reviews. Almost all of the

respondents would read the online reviews to plan their own trips. They perceived reviews posted by other travelers as being more likely to contain up-to-date, enjoyable, and reliable information. Online travel reviews were also perceived to be more likely to contain detailed and relevant information. Pan, MacLaurin, & Crotts (2007) reviewed 40 blogs describing the travel experience to Charleston, South Carolina. The authors stated: "Travel blogs qualitatively cover every aspect of a visitor's trip (p.19)." Crotts, Manson, and Davis (2009) agreed. They regarded the online travel blogs as a form of digital word-of-mouth, which is freely available online and has the potential to be used in not only qualitative analysis but also quantitative methods. Ye, Law, and Gu (2009) utilized the quantitative data, collected from the largest travel website in China, and developed the regression model to assess the influence of online reviews on the number of hotel room bookings. The results confirmed the significant relationship between online consumer reviews and business performance of hotels. Zhang, Ye, Law, and Li (2010) retrieved the data from one of the leading consumer advice websites in China, where customers themselves post evaluation of dining experience with restaurants. Regression analysis results indicated that consumer-generated ratings about the quality of food, environment and service of restaurants, and the volume of online consumer reviews were positively associated with the online popularity of restaurants. Particularly, the volume of online consumer reviews weighted heaviest.

User-generated Content and Word-of-Mouth

Word-of-mouth (WOM) is defined as the extent to which a customer informs friends, relatives, and colleagues about an event that has created a certain level of satisfaction (Soderlund, 1998). A number of empirical studies have observed a positive association between customer satisfaction and the propensity to recommend the

supplier's offer to other customers (Hartline and Jones, 1996; Parasuraman et al., 1988; Selnes, 1993). Soderlund's (1998) research concluded that the formation of the association between customer satisfaction and word-of-mouth was contingent on the level of satisfaction, in the sense that low levels of satisfaction produce a negative association while high levels produce a positive association. Various research in the service marketing field has arrived at the common agreement that customer satisfaction is positively linked to word-of-mouth referrals (Wangenheim and Bayon, 2007). Tourism and hospitality industry provides the service goods, intangible in nature. It means that travelers have no means to pretest the product unless they buy it. However, travel is never a cheaper product compared with the tangible goods in general. Travelers exhaust resources to collect pre-departure information in the trip planning process to avoid risk and making a wrong decision. Word-of-mouth is recognized an important external source of information for travel-related product purchase (Morgan et al., 2001; Shanka, Ali-Knight, & Pope, 2002; Zhang et al., 2010). Online reviews posted by travelers provide a way to access the electronic word-of-mouth (eWOM) (Chatterjee, 2001; Zhang et al., 2010).

Yoo, Lee, Gretzel and Fesenmaier (2009) conducted the web-based survey of U.S. internet users—a total of 1,170 respondents completed the surveys. Results indicated that the perceived expertise of travel-related user-generate content creators were significant predictors of trust in the online reviews posted online. The creators' credibility were thought to be honest, sincere, having the intention to help others, not making false statements, providing unbiased product recommendation and else. They were also perceived to have necessary expertise to evaluate travel-related products as well as

providing valuable information. Harrison-Walker (2001) analyzed six months of data (or a total of 551 individual complaints) on the online complaint forum of “United Airlines.” Nearly 20% of consumers admitted that the Internet complaint forum had been their first attempt to lodge a formal complaint, following complaining to contact personnel, by telephone, by letter, and by email. Based the study findings, the author suggested that companies should embrace the online consumer complaints on the basis of ease of processing complaints and the likelihood of response through online. Papathanssis and Knolle (2010) claimed that negative reviews had a greater impact than positive ones based on an explorative-qualitative study in which respondents were exposed to the navigation prototype containing both online travelers reviews and company-generated content (e.g., travel brochure). It was found that respondents had spent significantly more time examining and commenting on critical reviews. The authors believed that the underlying belief was that negative reviews had not entailed a falsification incentive. They also confirmed that negative reviews would be more likely to be utilized for holiday decision-making (than positive ones).

Summary

Ecotourism is an emerging type of tourism since 1990s. It differs from mass tourism due to the underlying principles of tourism development: environmental conservation and returning tourism-created benefits to the local residents at ecotourism destinations. While a substantial number of travelers are getting bored with the crowds, environmental pollution, and over commercialization at mass tourism destinations, they alternate to seek the authentic experience with pristine nature and exotic culture. In general, ecotourists are regarded the type of travelers desiring to be involved in nature and caring the sustainable development, reflected by their travel motivations. Tourist

experience and satisfaction are topics that have been extensively discussed. However, tourist satisfaction is complex due to the heterogeneity nature of tourism products and services. Travelers make the satisfaction judgment based on a variety of attributes relevant to their travel experiences. User-generated content is getting popularity and importance not only in the industrial field but the academic world. Researchers confirmed that user-generated content promotes electronic word-of-mouth and has impact on sales and travelers' decision-making, suggesting practitioners make proper response to online traveler reviews.

CHAPTER 3 RESEARCH METHODS

This study constitutes a content analysis of online user-generated reviews on ecolodges in ecotourism destinations. To answer RQ1, content analysis is the major research method. Tourist experience represented by stay at ecolodges was categorized and the frequency of categories and attributes reported by ecotourists was computed. To answer RQ2, the factors contributing to satisfaction/dissatisfaction were examined. Statistical tests were applied to classify the attributes with respect to their influence on ecotourists' overall satisfaction with their travel experiences and stays at ecolodges by the use of coded qualitative data. To answer RQ3, a statistical way of classifying attributes derived from the qualitative data material was proposed.

Data Collection

Data collection included three steps: selection of ecotourism destination, selection of ecolodge, and selection of user-generated review. Costa Rica is a salient example of the country reaping the rewards of rapid growth in ecotourism. It possesses a rich resource of biodiversity (6% of the world's total within 0.035% of the earth's surface). The country has experienced a dramatic tourism growth from 792,000 arrivals in 1995 to 1,659,000 arrivals in 2005, when the tourism gross receipts accounted for 22% of the country's total foreign exchange (Visitcostarica.com). According to Honey (2008), ecotourism and environmental ethics have become synonymous with Costa Rica. In light of the extensive social and economic impacts of ecotourism, a large number of destinations in Costa Rica are ideal sites for conducting research on nature and sustainability oriented activities. Puntarenas is the largest province of Costa Rica, famous for its Pacific coastline, extending over more than 500 miles down to the

Panamanian border. It offers a variety of beaches, national parks, and natural reserves of ecological importance. Alajuela is one of the most extensive provinces of Costa Rica, having an enviable natural richness that includes the rainforest and exuberant plains. This province is the home of two of the most impressive, active volcanoes of the country: Arenal Volcano and Poas Volcano. The Caribbean province, Limon, is formed by a combination of jungles, mountains, and beaches. Limón has the highest percentage of protected land in Costa Rica as well as has a wide variety of flora and fauna (Visitcostarica.com). This study selected Costa Rica and the Costa Rican ecolodges at these ecotourism regions as the source of qualitative data material to study tourist experience and satisfaction/dissatisfaction issues with travel experience.

TripAdvisor® branded sites alone make up the most popular and largest travel community in the world, with more than 32 million unique monthly visitors, 15+ million members, and more than 30 million reviews and opinions, featuring real advice from real travelers (Tripadvisor.com). TripAdvisor® was selected as a platform for collecting ecotourists' genuine and representative reviews on travel experiences, with a large database of these reviews. In addition to the textual reviewing articles, reviewers report their demographic characteristics, trip characteristics, and quantitative rating scores on hotel performance. The rating scores such as "overall rating" and "rating by attributes" range from 1 to 5 (i.e., "1—terrible," "2—poor," "3—average," "4—very good," and "5—excellent"). TripAdvisor® asks each reviewer if this hotel is recommendable (i.e., "I would recommend this hotel to a friend or relative – Yes/No"). The key words "Costa Rica lodge" were input to the search field on TripAdvisor® homepage; there were 187 Costa Rican lodges listed (Last accessed: June 24, 2010).

The numbers of posted online reviews for 187 Costa Rican lodges ranged from 1 to 379 (mean: 25, median: 11). Despite the unavailability of accommodation receipt data in Costa Rica, it can be reasonably assumed that the number of online reviews posted on TripAdvisor® reflects popularity. Therefore, 11 lodges with the largest number of online reviews (i.e., more than 100 posted online reviews) from the above three Costa Rican provinces were picked for this study. The 11 lodges geographically cover the key ecotourism destinations in Costa Rica and are located the country's most popular ecotourism regions (Figure 3-1 and Table 3-1). The selection criteria for an "ecolodge" were: (1) nature based; (2) committed to the sustainable development (e.g., water recycling, water and garbage treatment, use of alternative energy, use of organic, environmentally friendly and bio-degradable products, building the living museum to educate tourists); (3) giving support to local community (e. g., hiring local employees, setting up the weekly visits with local schools, participation in conservation projects, such as The Liberation of Young Turtles).

Online reviews posted by travelers from North American countries (i.e., United States, Canada, and Mexico) and written in English were firstly collected. There are two justifications for this decision. First, the North American market is the primary tourism market to Costa Rica. The tourism income from North American international tourists accounted for almost a half (48.2%) of Costa Rica's total in 2009 (Canatur.org). Second, the choice of English language helps maintain the data authenticity by avoiding translation from other languages (Chan & Baum, 2007b). This is particularly important to the qualitative data, since language nuances may be lost in translation. Additionally, the

extracted reviews were limited to those that were posted online within one year from the “date of stay” to avoid the influence of memory effect.

In total, 920 reviews of the 11 ecolodges were extracted, within initially specified latest 100 online reviews of each ecolodge. Out of 920 reviews, the U.S. travelers posted the majority (90.2%), followed by Canada travelers (9.3%) and Mexican travelers (0.4%). Considering the potential of marketable results specialized in U.S. outbound ecotourism market, the researchers decided to narrow the sample to those reviews created only by U.S. travelers (830 out of 920). Out of 830 reviews, there were 757 positive and 73 negative reviews. A review was considered “positive” if the reviewer stated “I would recommend this hotel to a friend or relative,” and “negative” if the reviewer stated “I would not recommend this hotel to a friend or relative.” The average overall satisfaction score by 757 positive reviews was 4.64 out of 5 and the average overall satisfaction score by 73 negative reviews was 2.21. This dichotomy was supported by the results of the Man-Whitney U test (Mann-Whitney $U=54,600$, $p<0.001$) confirming that the overall satisfaction scores given by reviewers indicating that they would make recommendation (Mean rank = 451.13, $N=757$) was significantly higher than those by those who would not (Mean rank = 46.05, $N=73$). These results indicated that satisfied ecotourists tended to post positive review whilst dissatisfied ecotourists tended to post negative reviews. At last, 300 randomly selected positive reviews and all of the 73 negative reviews were retained for content data analysis (Table 3-3).

Data Analysis

Attributes and Categories Identification

Content analysis and frequency aggregation methods were conducted to categorize the tourist experience represented by ecotourists’ staying at ecolodges for

RQ1. Content analysis is based on capturing the concepts relevant to certain topics within the textual data and summarizing the results in a quantitative way (Roberts, 2000). Key words and statements relevant to certain concepts were extracted from the reviews and recorded in a matrix in Microsoft Excel Worksheets. Manual coding was believed an efficient way of handling the sample data in that the sample size and length of online user-generated reviews were manageable. The similar attributes were grouped together and the categorical segmentation of similar attributes was formed.

The primary researcher conducted a pretest independently with around 30% of the research sample to develop the attributes and categories. The pretest process was composed of two stages. First, 20 online reviews posted by travelers traveling to Costa Rica and staying at the local ecolodges were randomly extracted from TripAdvisor® websites. The primary researcher wrote down the attributes involved in the online reviews, followed by standardizing the attributes across reviews. Attributes were grouped together to form categories. Second, the primary researcher coded 200 reviews independently using the drafted attributes and categories. Professors specialized in hospitality management, ecotourism, and content analysis methodology were invited to discuss the appropriateness of developed attributes and categories. Revision was made based on the disagreement and argument. Twenty-six attributes and 7 categories were established as shown in Figure 3-2. A matrix table was created in Microsoft Excel Worksheets to keep the key words and statements extracted from each review for every single attribute. In particular, reviewers' emotional attitudes could be addressed through wordings—some of the comments are favorable while others are unfavorable. The unfavorable comments were highlighted in red to be differentiated

from favorable comments colored in black (Appendix B). To record favorability/unfavorability with attributes, the matrix table was converted to a coding sheet where each review was coded by “1” for favorable comment, “2” for unfavorable comment, or “0” for the attribute not being mentioned for every single attribute (Appendix C).

Reliability Check

Reliability was defined as the extent to which a measuring procedure yields the same results on repeated trials (Carmines and Zeller, 1979). Intercoder reliability is “the degree of consistency between coders applying the same set of categories to the same content (Kassarjian, 1977, p14).” The establishment of intercoder reliability was suggested essential because it helps avoid the idiosyncratic results of one coder’s subjective judgment (Tinsley and Weiss, 1975). This means that the objectiveness of content analysis measures completed by human coding should be checked and validated through the intercoder reliability check process (Neuendorf, 2002). The purpose of intercoder reliability applied to this study is to make sure that the same conclusion could be arrived between the independent coders who code the same content with the same coding instrument. This calls for an acceptable level of agreement between independent coders in terms of the coding results. The other graduate student, major in tourism and recreation, at the university was invited to conduct the reliability check. The process followed the standard coder training processes (Neuendorf, 2002; Appendix D):

1. Coder training with discussion: in the training session, the coding guidelines were set up (e.g., referring the key words and statements in the reviews to the appropriate attributes and categories).
2. Coders practice code together, engaging in consensus-building discussion: three reviews of different length were coded together, followed by the independent coding of the other 3 reviews in the same training session.

3. Possible coding guidelines revisions.
4. Coders practice code independently: a sum of 85 reviews, 47 positive reviews and 38 negative reviews, were independently coded after the training session.
5. Data sets coded by coders were compared.
6. Discussion on discrepancies, engaging in consensus-building discussion.

The percent agreement (PA) was calculated on each code of reviews and every single attribute. The percentage represents the number of agreements divided by total number of measures. The formula for percent agreement is (Neuendorf, 2002, p. 149):

$$PA = A/n$$

Where A is the number of agreements between two coders and n is the total number of reviews the two coders have coded for the test.

The average PA on positive reviews was 87.08% and the average PA on negative reviews was 86.26% (Table 3-2). A 70% agreement or above is considered reliable (Frey, Botan, and Kreps, 2000; Shoemaker, 2003). However, PA on “nature-based attractions” among positive reviews was 48.94%; PAs on “room/bathroom décor and layout” and “room/bathroom facilities” were 65.79% and 68.42%, respectively, among negative reviews.

Code on the problematic attributes (i.e., PA < 70%) was discussed. The low PA on “nature-based attractions” was a result of uncertainty indicated by one of the coders in terms of coding a certain statement into two attributes. For example, statement “I appreciate the balcony of my bungalow where I was sitting to view the volcano and lava every morning and night” should have been coded onto the attributes of both “room amenities” and “nature-based attractions.” Difference on code “room/bathroom décor and layout” and “room/bathroom facilities” was coming from the human error that might

happen when the coders were dealing with a substantial amount of textual data. The coders also went through all the attributes where the PAs were below 80%. For example, only words like “safe,” “romantic,” “family feel,” or “relaxing” had been coded to “ambiance” by one coder. However, words describing the whole feel on the ecolodges as “well-kept,” “beautiful,” and “pleasant” should have been coded to “ambiance.” Revisions were made and included in the final data sets for future data analysis.

Adequacy of Sample Size

300 randomly selected positive reviews and all of the 73 negative reviews were retained for content data analysis (Table 3-3). The selected 373 reviews were posted between August 29, 2006 and June 8, 2010. The time spans for posting positive and negative reviews that were selected were September 2006–June 2010 and August 2006–June 2010, respectively.

The split-half technique was implemented to decide if the size of sample used in the qualitative content analysis is adequate. Krippendorff (2003) suggested splitting the sample randomly into two parts of equal size. He noted: “If both parts independently lead to the same conclusions within a desired confidence level, the whole sample can be accepted as being of adequate size (p. 124).” Repeating the split-half technique for several splits, ensuring that the same results could be yielded, was also suggested. The 300 positive reviews were split three times. Chi-square test confirmed no difference on the frequency of being mentioned between splits for 24 attributes out of 26 (Table 3-4). Chi-square test results were not interpretative on the remaining 2 attributes because these were the rare attributes being under represented among positive reviews. Fisher’s exact test was therefore implemented to test the statistical significance in this study because this test does not require that each cell in the contingency table has an

expected frequency of five or more and can be used regardless of how small the expected frequency is. Fisher's exact test results (Table 3-4) showed that there was no difference on the frequency of attribute being mentioned between splits. The 73 negative reviews were also split three times. Chi-square test confirmed no difference on the frequency of being mentioned between splits for 17 attributes out of 26 (Table 3-5). Chi-square test results were not interpretative on the remaining 9 attributes because these were the rare attributes being under represented among negative reviews. Fisher's exact test did not detect difference on most of the attributes but on attributes of "nature-based attractions" and "weather" at the 95% confidence level (Table 3-5). To further verify, Chi-square and Fisher's exact test were conducted based on the aggregated "nature" category. No statistical difference was found between splits ($\chi^2=2.495$, $p=0.114$; Fisher's $p=0.153$).

Check results on the adequacy of sample size of positive and negative reviews by the use of split-half technique suggested a sample of 300 positive reviews was a pleasant size of analyzing the qualitative data (Chi-square test results were fine) but a sample of 73 negative reviews might not be large enough to uncover all the possible issues contributing to dissatisfaction (Fisher's exact test results were fine, though). However, the researchers realized that there had been much more positive reviews than negative reviews posted online and on the selected ecolodges in Costa Rica. The researchers decided to stick to the readily available 73 negative reviews and keep in mind that the small sample of negative reviews might be a limitation of this study.

Nonparametric Test

Non-parametric test was the major statistical technique used to support the dichotomy of positive and negative reviews and to identify the satisfying and

dissatisfying factors for RQ2 based on the coded data from content analysis. A series of two-step nonparametric tests were implemented to identify the satisfying/dissatisfying factors. First, the independent samples Kruskal-Wallis test was conducted to find the relationship between attitudes toward individual attributes and the overall satisfaction with the stay at ecolodge. The Kruskal-Wallis test is used when the researchers have one independent variable with two or more levels and an ordinal dependent variable. In this study, the dependent variable was the overall satisfaction rating score and the independent variable was the attitude towards attributes (i.e., “favorable comment,” “unfavorable comment,” “no mention”). The null hypothesis was: “The distribution of overall satisfaction score is the same provided by reviewers from three levels of attitudes for every single attribute.” The independent samples Kruskal-Wallis test is nonparametric equivalent of ANOVA and a generalized form of the Mann-Whitney U test method since it permits two or more groups (ats.ucla.edu). Second, the Mann-Whitney U test was used to identify if the satisfaction level is different between two groups. Mann-Whitney U test was here conducted as the range test following Kruskal-Wallis test. The distribution of overall satisfaction scores given by ecotourists commenting certain attribute in either way (e.g., favorable, unfavorable) was tested against the distribution of overall satisfaction score given by ecotourists who did not mention this attribute. The distribution of satisfaction scores must be significantly different among groups on this attribute as indicated by independent samples Kruskal-Wallis test in the first step. The tests were completed using the Statistical Package for the Social Sciences 15.0 for Windows (SPSS 15.0). The series of statistical tests comprised the answer to RQ3.

Table 3-6 depicts the logistics of classifying attributes based on the series of two-step statistical tests for every single attribute. An attribute was classified as a “neutral” if no relationship was statistically found between favorability/unfavorability/no mention with this attribute and overall satisfaction. This means that “neutrals” have little effect on either satisfaction or dissatisfaction. An attribute was classified as a “satisfier” if the relationship between favorability with this attribute and overall satisfaction could be found and the ecotourists providing favorable comment on this attribute tended to provide disproportionately higher satisfaction scores. This attribute is satisfying. An attribute was classified as a “dissatisfier” if the ecotourists providing negative comment on this attribute tended to provide disproportionately lower satisfaction scores. This attribute is dissatisfying. If an attribute was found to be both “satisfying” and “dissatisfying,” it was classified as a “critical.”

Table 3-1. Ecolodges and location in this study

Ecolodge	Region	Province	Location
Arenal Observatory Lodge	North	Alajuela	Arenal Volcano National Park
Volcano Lodge & Gardens	North	Alajuela	Arenal Volcano National Park
Peace Lodge	North	Alajuela	Vara Blanca
Bosque del Cabo Rainforest Lodge	Mid Pacific	Puntarenas	Puerto Jimenez, Osa
Arco Iris Lodge	Monteverde	Puntarenas	Santa Elena, Monteverde
La Cusinga Eco Lodge	South Pacific	Puntarenas	Uvita
Monteverde Rustic Lodge	Monteverde	Puntarenas	Santa Elena, Monteverde
Lapa Rios Ecolodge	South Pacific	Puntarenas	Corcovado National Park, Osa
Monteverde Lodge & Gardens	Monteverde	Puntarenas	Monteverde Cloud Forest Reserve
Arenal Lodge	North	Alajuela	Arenal Volcano National Park
Pachira Lodge	Caribbean	Limon	Puerto Limon

Table 3-2. Percent agreement (PA) on code of positive reviews and negative reviews by two coders before code revision

Attribute	PA on positive reviews (N=47)	PA on negative reviews (N=38)
Accessibility	95.74%	92.11%
Closeness to town	82.98%	92.11%
Closeness to attraction	72.34%	97.37%
Grounds/surroundings	76.60%	78.95%
Ambiance	70.21%	76.32%
Ecofriendliness	89.36%	94.74%
Noise	97.87%	86.84%
Other guests	93.62%	97.37%
Amenities	91.49%	84.21%
Room/bathroom décor and layout	80.85%	65.79%
Room/bathroom facilities	89.36%	68.42%
Room amenities	85.11%	71.05%
Insect problem	97.87%	92.11%
Customer service	89.36%	89.47%
Entertainment choice	97.87%	86.84%
Tour/tour guide service	82.98%	89.47%
Restaurant service	93.62%	92.11%
Reservation process	93.62%	81.58%
Management policies	82.98%	76.32%
Food quality	93.62%	92.11%
Room rates	95.74%	84.21%
Food/drink price	91.49%	86.84%
Other prices	95.74%	94.74%
Nature-based activities	78.72%	89.47%
Nature-based attractions	48.94%	78.95%
Weather	91.49%	92.11%
(Average)	87.08%	86.26%
(Std. deviation)	10.86%	8.89%
(Maximum)	97.87%	97.37%
(Minimum)	48.94%	65.79%
(Range)	48.94%	31.58%

Table 3-3. Ecolodges and the numbers of the online reviews used in this study

Lodge	Positive	Negative	Total
Arenal Observatory Lodge	28	8	36
Volcano Lodge & Gardens	42	2	44
Peace Lodge	28	10	38
Bosque del Cabo Rainforest Lodge	37	5	42
Arco Iris Lodge	35	7	42
La Cusinga Eco Lodge	22	2	24
Monteverde Rustic Lodge	34	1	35
Monteverde Lodge & Gardens	32	12	44
Lapa Rios Ecolodge	21	4	25
Arenal Lodge	9	18	27
Pachira Lodge	12	4	16
Total	300	73	373

Table 3-4. Split-half check results on 300 positive reviews (150 vs.150)

	1 st Split		2 nd Split		3 rd Split	
	χ^2 p	Fisher p	χ^2 p	Fisher p	χ^2 p	Fisher p
Accessibility	0.506	0.618	0.506	0.618	0.183	0.244
Closeness to town	0.681	0.784	0.891	1.000	0.075	0.099
Closeness to attraction	0.531	0.677	0.835	1.000	0.531	0.677
Grounds/surroundings	0.908	1.000	0.908	1.000	0.728	0.817
Ambiance	0.548	0.631	0.401	0.471	0.904	1.000
Ecofriendliness	0.088	0.128	0.850	1.000	0.184	0.255
Noise	0.828	1.000	0.515	0.665	0.278	0.386
Other guests	0.064	0.109	0.791	1.000	0.791	1.000
Lodge amenities	0.204	0.248	0.729	0.817	0.908	1.000
Room/bathroom décor and layout	0.284	0.314	0.404	0.475	0.190	0.233
Room/bathroom facilities	0.545	0.687	0.313	0.420	0.313	0.420
Room amenities	0.244	0.294	0.244	0.294	0.244	0.294
Insect problem	1.000	1.000	0.165	0.247	0.064	0.103
Customer service	0.530	0.616	0.706	0.802	0.167	0.209
Entertainment choice	1.000	1.000	0.165	0.247	0.643	0.818
Tour/tour guide service	0.891	1.000	0.681	0.784	0.217	0.272
Restaurant service	0.791	1.000	0.791	1.000	0.064	0.109
Reservation process	0.702*	1.000	0.251*	0.448	0.702*	1.000
Management policies	0.474*	0.723	0.474*	0.723	0.474*	0.723
Food quality	0.780	0.889	0.577	0.676	0.780	0.889
Room rates	0.872	1.000	0.872	1.000	0.628	0.747
Food/drink price	0.639	0.755	0.435	0.532	0.639	0.755
Other prices	0.640	0.109	0.427	0.598	0.064	0.109
Nature-based activities	0.904	1.000	0.187	0.230	0.719	0.810
Nature-based attractions	0.644	0.729	0.817	0.908	0.817	0.908
Weather	0.716	0.856	0.716	0.856	0.716	0.856

Note: *2 cells (50%) of a 2x2 contingency table have expected count less than 5 in Chi-square tests

Table 3-5. Split-half check results on 73 negative reviews (36 vs.35)

	1 st Split		2 nd Split		3 rd Split	
	χ2 p	Fisher p	χ2 p	Fisher p	χ2 p	Fisher p
Accessibility	0.562	0.754	0.959	1.000	0.188	0.221
Closeness to town	0.614	0.778	0.951	1.000	0.285	0.398
Closeness to attraction	0.174*	0.358	0.620*	0.674	0.666*	1.000
Grounds/surroundings	0.074	0.100	0.401	0.482	0.713	0.815
Ambiance	0.688	0.808	0.062	0.087	0.931	1.000
Ecofriendliness	0.174*	0.358	0.620*	0.674	0.666*	1.000
Noise	0.353	0.398	0.165	0.247	0.818	1.000
Other guests	0.984*	1.000	0.984*	1.000	0.146*	0.240
Lodge amenities	0.563	0.642	0.407	0.484	0.719	0.816
Room/bathroom décor and layout	0.295	0.350	0.295	0.350	0.918	1.000
Room/bathroom facilities	0.351	0.515	0.351	0.515	0.707	0.754
Room amenities	0.417	0.482	0.417	0.482	0.736	0.815
Insect problem	0.719	0.768	0.801	1.000	0.801	1.000
Customer service	0.738	0.813	0.197	0.236	0.885	1.000
Entertainment choice	0.719*	1.000	0.719*	1.000	0.663*	0.711
Tour/tour guide service	0.755*	1.000	0.266*	0.308	0.755*	1.000
Restaurant service	0.978*	1.000	0.291*	0.358	0.291*	0.358
Reservation process	0.526**	0.736	0.963**	1.000	0.963**	1.000
Management policies	0.663*	0.711	0.218*	0.261	0.719*	1.000
Food quality	0.080	0.103	0.903	1.000	0.903	1.000
Room rates	0.947	1.000	0.308	0.417	0.634	0.787
Food/drink price	0.443	0.581	0.371	0.417	0.733	0.787
Other prices	0.539*	0.615	0.073*	0.115	0.073	0.115
Nature-based activities	0.384	0.472	0.697	0.811	0.697	0.811
Nature-based attractions	0.885	1.000	0.114	0.153	0.025***	0.032***
Weather	0.967*	1.000	0.479*	0.711	0.022*	0.028***

Note: *2 cells (50%) of a 2x2 contingency table have expected count less than 5

** 1 cell (25%) of a 2x2 contingency table has expected count less than 5

***Significant difference detected at 95% confidence level

Table 3-6. Proposed logistics of classifying attributes based on statistical results

Classification of attributes	Kruskal-Wallis Test	Mann-Whitney U Test	
		“Favorable comment” vs. “No mention”	“Unfavorable comment” vs. “No mention”
Neutrals	×		
Satisfiers	√	+	
Dissatisfiers	√		-
Criticals	√	+	-

Note: “×” represents no difference detected in Kruskal-Wallis Test, “√” represents difference detected in Kruskal-Wallis Test, and “+” or “-” represents difference detected in Mann-Whitney U Test and having a directional indication



Figure 3-1. Ecolodges and location in this study

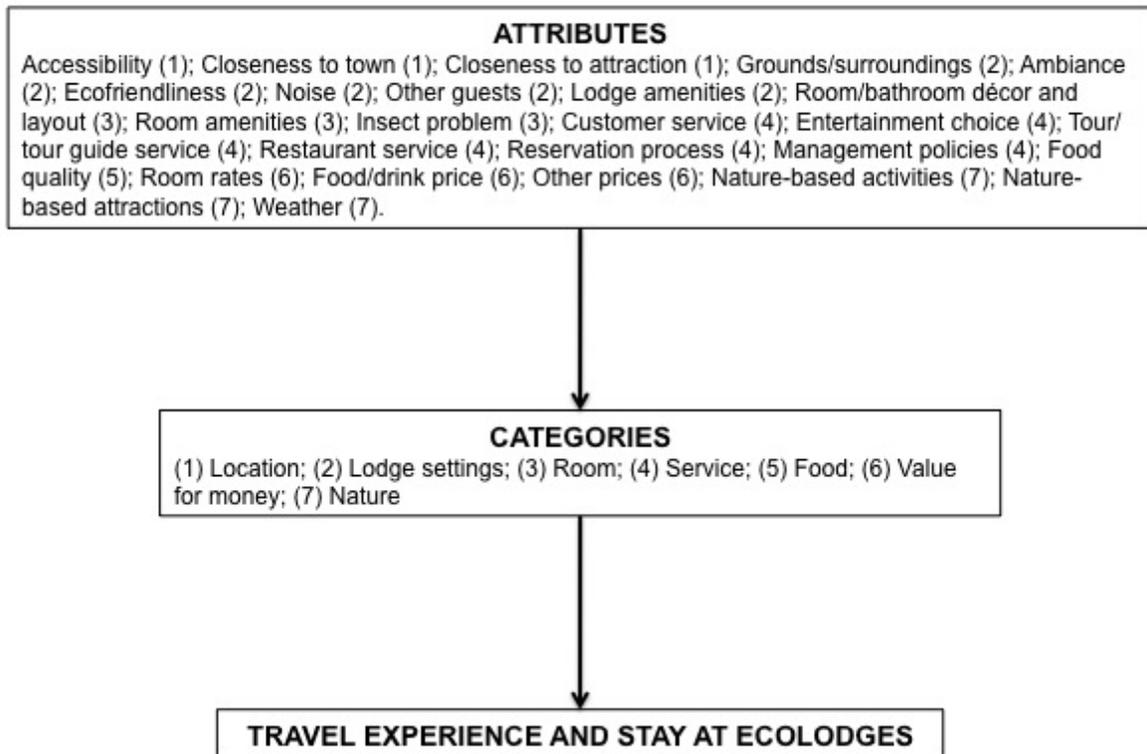


Figure 3-2. The identified attributes and categories. Numbers next to the attributes indicate which mega-theme they belong to.

CHAPTER 4 RESULTS

Reviewer and Reported Trip Profile

Among the 373 online reviews, the majority (76.8%) was posted by ecotourists aged between 25 and 49 years old, and nearly one fifth (19.5%) were written by 50 year old or above aged people. More female ecotourists (65.9%) posted the online travel reviews than male (34.1%). Most of the trips were made for leisure (99.2%) and 0.8% were for business purposes. More than a half of the eco-trips were made by couples (61.6%), followed by families (24.6%), friends getaway (10.9%), solo travelers (1.7%), and business partners (1.1%). Not surprisingly, “travel with spouse/partner” took the lead at 58.6%, followed by family (“extended family”—7.4%, “family with young children”—7.9%, “family with teenagers”—8.7%) and others (“friends”—10.1%, “solo traveler”—1.6%, “large group/tour”—3.3%, and “other”—2.5%).

The reviews reported the trips taken between 2006 and 2010. The most were taken in 2009, accounting for 42.1%, followed by 2008 (24.7%) and 2010 (18.5%). In terms of seasonality, most trips were taken in March (16.1%), December (11.3%), and August (11%). Least trips were reported taken in September (2.7%) and October (2.7%). In the remaining months, the proportions of trips taken averaged at 8%. The overall rating scores on the trips to and staying at ecolodges averaged at 4.13 out of 5 (i.e., “1—terrible,” “2—poor,” “3—average,” “4—very good,” and “5—excellent”). More than a half (76.9%) of ecotourists reported their trips and stayed at the ecolodges being “good” or “excellent,” at 23.9% and 53.1%, respectively.

Findings for Research Questions

Components Constituting Travel Experience and Stay at Ecolodges (RQ1)

Frequencies of attributes being mentioned were aggregated for the online reviews. Ecotourists mentioned the category of “ecolodge settings” most often, followed by “room,” “nature,” “service,” “food,” “location,” and “value for money.” The attribute of “food quality” was most frequently discussed, followed by “customer service,” “room/bathroom décor and layout,” “nature-based activities,” “room amenities,” “grounds/surroundings,” and “nature-based attractions.” In general, over a half of online reviews mentioned these topics when ecotourists recalled travel experiences and stays at ecolodges (Table 4-3). Table 4-4 provides the real examples of texts extracted from the online reviews, which include both favorable comments and unfavorable comments on every single attribute. Particularly, there were discrepancies between the attributes emphasized in positive reviews and negative reviews (Table 4-5). Fisher’s exact test results indicated that the frequency was significantly different between positive and negative reviews on 6 attributes: “noise,” “insect problem,” “food quality,” “reservation process,” “management policies,” and “nature-based activities.” The disproportionately higher percentages of negative reviews reported the problems of “noise,” “insect,” “reservation process,” and “management policies.” The disproportionately higher percentages of positive reviews mentioned “food” and “nature-based activities” related topics.

Satisfying vs. Dissatisfying Factors (RQ2-3)

The total sample of 373 online reviews, without the dichotomy of positive and negative reviews, was used in the course of classifying attributes with respect to their

influence on overall satisfaction. For every single attribute, ecotourists were divided into three groups. The group division was based on the ecotourists' reported attitudes regarding this particular attribute: providing favorable comment, providing unfavorable comment, and no mention. First, the independent-samples Kruskal-Wallis test was implemented to find the difference of overall satisfaction score distribution among three groups of ecotourists on every single attribute. In other words, the relationship between attitudes toward individual attributes (i.e., favorable comment/unfavorable comment/no mention) and overall satisfaction level (i.e., "1—terrible," "2—poor," "3—average," "4—very good," and "5—excellent") indicated by ecotourists was examined. The Kruskal-Wallis Test results (Table 4-6) indicated the statistical relationship between overall satisfaction and attitude towards 18 individual attributes (out of 26), suggesting that the overall satisfaction level with travel experience and stay at ecolodges was related to the attitude towards these specific attributes. They were: "grounds/surroundings," "ambiance," "ecofriendliness," "noise," "lodge amenities," "other guests," "room/bathroom décor and layout," "room amenities," "insect problem," "customer service," "tour/tour guide service," "reservation process," "management policies," "food quality," "room rates," "nature-based activities," and "nature-based attractions."

Second, the Mann-Whitney U test was used on these 18 attributes individually to further identify the difference of satisfaction level between any two groups of ecotourists commenting on a particular attribute. It aimed at finding if (1) the distribution of overall satisfaction scores was the same between ecotourists who showed favorability on a certain attribute and ecotourists who did not comment this attribute; (2) the distribution of overall satisfaction scores was the same between ecotourists who showed

unfavorability on a certain attribute and ecotourists who did not comment on this attribute. Table 4-7 depicts the Mann-Whitney U test results indicating that (1) favorability with 9 attributes had a significant positive influence on ecotourists' overall satisfaction, including "ambiance," "ecofriendliness," "other guests," "room/bathroom décor and layout," "customer service," "tour/tour guide service," "food quality," "room rates," and "nature-based activities;" (2) unfavorability with 16 attributes had a significant negative influence on ecotourists' overall satisfaction, including "ambiance," "ecofriendliness," "room/bathroom décor and layout," "customer service," "tour/tour guide service," "food quality," "room rates," "grounds/surroundings," "noise," "lodge amenities," "room/bathroom facilities," "room amenities," "insect problem," "reservation process," "management policies," and "nature-based attractions."

Per the proposed logistics of classifying attributes in a statistical way in Table 3-6, Table 4-8 depicts the proposed typology of factors constructing ecotourists' satisfaction/dissatisfaction with the travel experiences and stays at the ecolodges in Costa Rican ecotourism destinations. Attributes were classified as "neutrals" if the attitude towards attributes had no influence on the overall satisfaction or no difference of overall satisfaction was detected among three groups of ecotourists in the Kruskal-Wallis Test (Table 4-6). Attributes were classified as "satisfiers" if the favorability, but not unfavorability, on these attributes had a significant influence on overall satisfaction or the satisfaction level of ecotourists commenting these particular attributes in a favorable way was significantly higher than that of ecotourists who did not mention these attributes. Attributes were classified as "dissatisfiers" if the unfavorability, but not favorability, on these attributes had a significant influence on overall satisfaction or the

satisfaction level of ecotourists commenting these particular attributes in an unfavorable way was significantly lower than that of ecotourists who did not mention these attributes (Table 4-7). Attributes were classified as “criticals” if both the favorability and unfavorability with attributes had significant influence on the overall satisfaction (see Mann-Whitney U test results in Table 4-7).

Table 4-1. Reviewer and reported trip profile by variables

	Frequency	Percentage*	Valid percentage**
Age (Variable)			
13-17	1	0.3%	0.4%
18-24	9	2.4%	3.4%
25-34	113	30.3%	42.3%
35-49	92	24.7%	34.5%
50-64	50	13.4%	18.7%
65+	2	0.5%	0.7%
(Missing)	106	28.4%	—
Gender (Variable)			
Female	141	37.8%	65.9%
Male	73	19.6%	34.1%
(Missing)	159	42.6%	—
Travel purpose (Variable)			
Leisure	370	99.2%	99.2%
Business	3	0.8%	0.8%
Trip type			
Couples	215	58.0%	61.8%
Family	86	23.0%	24.7%
Friends getaway	38	10.0%	10.9%
Solo travel	6	2.0%	1.7%
Business	3	80.0%	0.9%
(Missing)	25	7.0%	—
Traveled with...(Variable)			
With Spouse/Partner	215	57.6%	58.6%
With friends	37	9.9%	10.1%
Family with teenagers	32	8.6%	8.7%
Family with young children	29	7.8%	7.9%
Extended family	27	7.2%	7.4%
Large group/tour	12	3.2%	3.3%
Other	9	2.4%	2.5%
Solo traveler	6	1.6%	1.6%
(Missing)	6	1.6%	—
Total	373	100.0%	

Note: *Percentage out of the total reviews (N=373); **Valid percentage was rebased excluding the missing cases

Table 4-2. Seasonality and satisfaction scores of reported trips by variables

	Frequency	Percentage*
Stay month (Variable)		
January	37	9.9%
February	25	6.7%
March	60	16.1%
April	36	9.7%
May	32	8.6%
June	25	6.7%
July	29	7.8%
August	41	11.0%
September	10	2.7%
October	10	2.7%
November	26	7.0%
December	42	11.3%
Stay year (Variable)		
2006	10	2.7%
2007	45	12.1%
2008	92	24.7%
2009	157	42.1%
2010	69	18.5%
Overall satisfaction score (Variable)		
1—terrible	13	3.5%
2—poor	38	10.2%
3—average	35	9.4%
4—very good	89	23.9%
5—excellent	198	53.1%
Total	373	100.0%

Note: *Percentage out of the total reviews (N=373)

Table 4-3. Attribute and category frequency in 373 reviews

Category/Attribute	Frequency	Percentage*
Ecolodge settings (Category)	600	
Grounds/surroundings	197	52.8%
Lodge amenities	177	47.5%
Ambiance	135	36.2%
Noise	38	10.2%
Ecofriendliness	36	9.7%
Other guests	17	4.6%
Room (Category)	511	
Room/bathroom décor and layout	228	61.1%
Room amenities	212	56.8%
Room/bathroom facilities	38	10.2%
Insect problem	33	8.8%
Nature (Category)	446	
Nature-based activities	219	58.7%
Nature-based attractions	185	49.6%
Weather	42	11.3%
Service (Category)	409	
Customer service	253	67.8%
Tour/tour guide service	78	20.9%
Entertainment choice	27	7.2%
Restaurant service	19	5.1%
Management policies	15	4.0%
Reservation process	17	4.6%
Food (Category)	272	
Food quality	272	72.9%
Location (Category)	169	
Closeness to town	85	22.8%
Accessibility	54	14.5%
Closeness to attraction	30	8.0%
Value for money (Category)	147	
Food/drink price	66	17.7%
Room rates	63	16.9%
Other prices	18	4.8%

Note: *Percentage out of the number of reviews (N=373)

Table 4-4. The attributes and statements extracted from online reviews

Attribute	Favorable comment	Unfavorable comment
Grounds/ surroundings	Beautiful grounds/surroundings	Long walk/too many stairs inside the lodge/outdated (back to 1960s, 1970s)/ insect/dirt problem in lobby and restaurant
Lodge amenities	Nice entertainment facilities, e.g. hot tub, pool, Jacuzzi, trails, bar, library/have internet in public area/nice restaurant surroundings, e.g. view, fire place	Poor/lack of entertainment facilities, e.g., pool, hot stub, deck chairs, music/pathetic points of interest, e.g. in-house museum/lack of internet or cell phone reception/bad/glaring/dark restaurant surroundings
Ambiance	Serene/quiet/peaceful/ relaxing/family/romantic	Over-commercialized (too touristy)
Noise		Noise (construction/traffic/loud kids/staff)
Ecofriendliness	Ecofriendly approaches and commitment to local community	Lack of local culture (too American)/not ecofriendly, e.g. caged animals, fake decoration made from concrete/fake decoration made from concrete/No nature education
Other guests	Interaction with fellow guests	
Room/bathroom décor and layout	Uniquely designed room décor and layout/beautiful bathroom with tub, Jacuzzi, waterfall/spacious room/bathroom/clean/no insects/private	No a/c, no TV, really rustic/need maintenance/update (old, worn out decoration)/lack of room privacy (thin wall, room right close to each other)/dirty room
Room amenities	Nice room view of volcano, rainforest, lake, wildlife/comfortable beds/pillow/nice room attached amenities, e.g. balcony, deck, sometimes A/C	Uncomfortable bed/lumpy pillow/dirty bed sheets/coldness/non-airy in room/lack of room attached facilities, e.g. no refrigerator/no dehumidifier/no security
Room/bathroom facilities	Nice bathroom facilities, e.g. towel art, water pressure, bath supplies	Poor bathroom facilities (water temperature/pressure/bath supplies)

Table 4-4. Continued

Attribute	Positive comment	Negative comment
Insect problem	Clean/no insects	Insect/bug problem
Nature-based activities	Nice nature based activities, e.g. hiking, rainforest touring, boat tour, sky zip lining, bird watching/wildlife viewing/interaction	Not seeing wildlife
Nature-based attractions	Nice nature-based attractions, e.g. beach, volcano, waterfall, rain forest	Limited hiking trails
Weather	Good/clear weather	Bad weather, e.g. pour rain, fog, mist, chilly, damp
Customer service	Nice/friendly/welcoming/warm attitude/staff professionalism/helpfulness/knowledge of local service, information, and attractions	Slow response to service request/indifferent/rude/surlly/dishonesty/staff unhelpfulness, e.g. cannot help on tour booking/unwillingness to learn/cannot accept recommendation
Tour/tour guide service	Knowledgeable/careful/professional tour guide	Unwell-prepared/unprofessional/rude tour guide/disorganization of tour
Entertainment choice	Pleasant entertainment options, e.g. massage, evening fire, music	
Restaurant service	Nice/formal restaurant service	Poor restaurant service, e.g. understaffed, rushing service
Management policies		Restrictive policies, incl. cancel, payment and refund/fixed time schedule, e.g. lodge gate closed at 11pm, restaurant serves within limited time frames/payment issues, e.g. currency exchange, overcharge issues
Reservation process	Easy check-in/reservation	Hard reservation/unreliable information posted online
Food quality	Decent/delicious food	Mediocre/so-so food/food poisoning/limited food choice

Table 4-4. Continued

Attribute	Positive comment	Negative comment
Closeness to town	Close to town	Isolation/way out of town
Accessibility	Easy to get there	Hard access to the lodge (long bumpy roads with potholes)
Closeness to attraction	Close to attractions	Inconvenient to attractions (long drive)
Food/drink price	Reasonably priced	Over-priced food (expensive as for Costa Rica standards)
Room rates	Good value for stay	Not worth/overpriced the room rates for the quality and service
Other prices	Reasonably priced souvenir/laundry service	Over-priced laundry/souvenir service/tour/transportation

Table 4-5. Discrepancy on attribute frequency between positive and negative reviews

Attribute	Positive review freq	Negative review freq	χ^2 p	Fisher p
Grounds/surroundings	165	32	0.087	0.091
Lodge amenities	143	34	0.867	0.897
Ambiance	109	26	0.909	1.000
Ecofriendliness	31	5	0.366	0.507
Noise	23	15	0.001*	0.002*
Other guests	15	2	0.406**	0.543
Room/bathroom décor and layout	187	41	0.332	0.351
Room amenities	170	42	0.893	1.000
Room/bathroom facilities	27	11	0.124	0.133
Insect problem	20	13	0.003*	0.005*
Nature-based activities	191	28	<0.001*	<0.001*
Nature-based attractions	156	29	0.060	0.068
Weather	34	8	0.928	1.000
Customer service	209	44	0.123	0.127
Tour/tour guide service	69	9	0.044*	0.053
Entertainment choice	20	7	0.388	0.448
Restaurant service	15	4	0.867**	0.773
Management policies	8	7	0.007**	0.014*
Reservation process	7	10	<0.001**	<0.001*
Food quality	234	38	<0.001*	<0.001*
Closeness to town	69	16	0.843	1.000
Accessibility	42	12	0.595	0.581
Closeness to attraction	25	5	0.676	0.813
Food/drink price	49	17	0.163	0.173
Room rates	45	18	0.048*	0.056
Other prices	15	3	0.750**	1.000

Note: *Statistical significant difference detected at 95% confidence level; **1 cell (25.0%) has expected count less than 5 in Chi-square test.

Table 4-6. Average satisfaction scores of three groups of ecotourists and Kruskal-Wallis test results

Attribute	Average satisfaction score			K-W Test Statistic	P-value
	Group 1*	Group 2*	Group 3*		
Accessibility	4.86	3.87	4.15	5.356	0.069
Closeness to town	4.39	3.64	4.12	5.857	0.053
Closeness to attraction	4.11	2.67	4.14	5.012	0.082
Grounds/surroundings	4.24	2.67	4.11	17.589	<0.001**
Ambiance	4.37	2.94	4.09	20.552	<0.001**
Ecofriendliness	4.67	3.00	4.01	12.159	0.002**
Noise	4.00	3.63	4.18	7.769	0.021**
Other guests	4.65	—	4.10	9.958	0.047**
Lodge amenities	4.28	3.07	4.16	21.783	<0.001**
Room/bathroom décor and layout	4.47	2.56	4.06	60.015	<0.001**
Room/bathroom facilities	4.50	2.94	4.16	13.045	0.001**
Room amenities	4.41	3.04	4.16	41.946	<0.001**
Insect problem	4.60	3.21	4.20	13.826	0.001**
Customer service	4.47	2.45	3.91	83.851	<0.001**
Entertainment choice	4.17	3.00	4.16	3.772	0.152
Tour/tour guide service	4.49	2.17	4.08	16.717	<0.001**
Restaurant service	4.38	3.00	4.13	4.618	0.099
Reservation process	4.00	2.55	4.18	15.821	<0.001**
Management policies	4.60	2.70	4.16	13.673	<0.001**
Food quality	4.47	3.12	3.75	54.214	<0.001**
Room rates	4.68	2.55	4.17	40.151	<0.001**
Food/drink price	4.35	3.70	4.17	5.923	0.052
Other prices	4.31	3.20	4.14	3.391	0.183
Nature-based activities	4.40	3.00	3.84	18.547	<0.001**
Nature-based attractions	4.28	2.00	4.02	7.929	0.019**
Weather	4.50	4.13	4.12	1.402	0.496

Note: *Group 1/2/3 represent three groups of ecotourists providing favorable comment/unfavorable comment/no mention on a particular attribute respectively;

**Statistical significant difference detected at 95% confidence level

Table 4-7. Average satisfaction scores of two groups of ecotourists and Mann-Whitney U test results

Attribute	Average satisfaction scores*				P-value	
Grounds/surroundings	Group 1:	4.24	vs.	Group 3:	4.11	0.774
	Group 2:	2.67	vs.	Group 3:	4.11	<0.001**
Ambiance	Group 1:	4.37	vs.	Group 3:	4.09	0.028**
	Group 2:	2.94	vs.	Group 3:	4.09	<0.001**
Ecofriendliness	Group 1:	4.67	vs.	Group 3:	4.10	0.011**
	Group 2:	3.00	vs.	Group 3:	4.10	0.022**
Noise	Group 1:	4.00	vs.	Group 3:	4.18	0.258
	Group 2:	3.63	vs.	Group 3:	4.18	0.009**
Other guests	Group 1:	4.65	vs.	Group 3:	4.10	0.047**
	Group 2:	—	vs.	Group 3:	4.10	—
Lodge amenities	Group 1:	4.28	vs.	Group 3:	4.16	0.886
	Group 2:	3.07	vs.	Group 3:	4.16	<0.001**
Room/bathroom décor and layout	Group 1:	4.47	vs.	Group 3:	4.06	0.014**
	Group 2:	2.56	vs.	Group 3:	4.06	<0.001**
Room/bathroom facilities	Group 1:	4.50	vs.	Group 3:	4.16	0.252
	Group 2:	2.94	vs.	Group 3:	4.16	0.001**
Room amenities	Group 1:	4.41	vs.	Group 3:	4.16	0.223
	Group 2:	3.04	vs.	Group 3:	4.16	<0.001**
Insect problem	Group 1:	4.60	vs.	Group 3:	4.20	0.571
	Group 2:	3.21	vs.	Group 3:	4.20	<0.001**
Customer service	Group 1:	4.47	vs.	Group 3:	3.91	<0.001**
	Group 2:	2.45	vs.	Group 3:	3.91	<0.001**
Tour/tour guide service	Group 1:	4.49	vs.	Group 3:	4.08	0.045**
	Group 2:	2.17	vs.	Group 3:	4.08	0.001**
Reservation process	Group 1:	4.00	vs.	Group 3:	4.18	0.711
	Group 2:	2.55	vs.	Group 3:	4.18	<0.001**
Management policies	Group 1:	4.60	vs.	Group 3:	4.16	0.539
	Group 2:	2.70	vs.	Group 3:	4.16	<0.001**
Food quality	Group 1:	4.47	vs.	Group 3:	3.75	0.007**
	Group 2:	3.12	vs.	Group 3:	3.75	0.009**
Room rates	Group 1:	4.68	vs.	Group 3:	4.17	0.006**
	Group 2:	2.55	vs.	Group 3:	4.17	<0.001**
Nature-based activities	Group 1:	4.40	vs.	Group 3:	3.84	<0.001**
	Group 2:	3.00	vs.	Group 3:	3.84	0.167
Nature-based attractions	Group 1:	4.28	vs.	Group 3:	4.02	0.084
	Group 2:	2.00	vs.	Group 3:	4.02	0.040**

Note: *Group 1/2/3 represent three groups of ecotourists providing favorable comment/unfavorable comment/no mention on a particular attribute respectively;

**Statistical significant difference detected at 95% confidence level

Table 4-8. Typology of factors contributing to satisfaction/dissatisfaction

Category	Attribute	Typology
Lodge settings	Ambiance	CRITICAL
Lodge settings	Ecofriendliness	CRITICAL
Room	Room/bathroom décor and layout	CRITICAL
Service	Customer service	CRITICAL
Service	Tour/tour guide service	CRITICAL
Food	Food quality	CRITICAL
Value for money	Room rates	CRITICAL
Lodge settings	Grounds/surroundings	DISSATISFIER
Lodge settings	Noise	DISSATISFIER
Lodge settings	Lodge amenities	DISSATISFIER
Room	Room/bathroom facilities	DISSATISFIER
Room	Room amenities	DISSATISFIER
Room	Insect problem	DISSATISFIER
Service	Reservation process	DISSATISFIER
Service	Management policies	DISSATISFIER
Nature	Nature-based attractions	DISSATISFIER
Lodge settings	Other guests	SATISFIER
Nature	Nature-based activities	SATISFIER
Location	Accessibility	NEUTRAL
Location	Closeness to town	NEUTRAL
Location	Closeness to attraction	NEUTRAL
Service	Entertainment choice	NEUTRAL
Service	Restaurant service	NEUTRAL
Value for money	Food/drink price	NEUTRAL
Value for money	Other prices	NEUTRAL
Nature	Weather	NEUTRAL

CHAPTER 6 DISCUSSION

Discussion of Results

Market Segmentation

The reviewer profile has the potential to represent the ecotourism market segmentation. The age profile of reviewers in this study is in accordance with the findings of previous literature (HLA/ARA, 1994; cited in Weaver, 2001): 77% of reviews were posted by U.S. ecotourists aging between 25 and 49 years old and one-fifth were posted by U.S. ecotourists aging 55 years old or above. The current review profile results cannot, however, reveal the consistency of equal gender participation with previous results (HLA/ARA, 1994; cited in Weaver, 2001). There were more reviews posted by female ecotourists than by male ecotourists (66% vs. 34%). The gender discrepancy could be explained by the tendency for the one gender to share opinions to strangers, which the other might not do. Women are much more likely to disclose information to a stranger than are men, who tend to reserve their disclosures for close others (Dindia and Allen, 1992; Barrett, Robin, Pietromonaco, & Eysell, 1998). The current trip profile, characterized by being family-oriented (e.g., 62% of reported trips were taken by couples and 25% were taken by families), is in accordance with previous literature documenting “to be with family or friends” as one of the major motives of making nature based trips (Kerstetter et al., 2004).

Ecotourism Experience and Stay at Ecolodges

Ecolodges are a unique lodging sector in the tourism market. Ecotourists expect more than simply accommodation when they choose to stay at an ecolodge. In the post-trip reviews, they almost qualitatively tell every aspect of their stays at ecolodges and

the nature based travel experiences surrounding the stays, previously suggested by Pan et al. (2007) and Crofts et al. (2009). The categorization of ecotourists' travel experiences at ecolodges is in accordance with previous literature, particularly with Chan and Baum (2007 & 2007b) in terms of ecotourists' participation in nature based activities, having basic accommodation needs, and socialization with ecolodge service staff and other guests. Ecotourists are curious, expecting to acquire a large amount of information about the surrounding world of nature—plantation and wild animals—too. The reported categories and attributes relevant to the ecotourism experience and stay at ecolodges confirmed the prediction by Quan and Wang (2004) that tourist experience was composed of three dimensions: peak touristic experience, supporting consumer experience, and daily routine experience. The satisfaction with travel experience is resultant from the mutual support of these dimensions.

First, “nature” is a “peak” aspect of the total experience reported by ecotourists that is not readily available in daily life components. In most cases when ecotourists mentioned nature based activities or attractions, they attached their experiences with positive emotion. They admired the ecolodge surroundings; they complimented the nearby nature attractions (e.g., volcano, waterfall, rain forest, ocean); and they appreciated the physical participation in nature based activities (e.g., wildlife viewing, nature hike, themed tour, ziplining, water-based activities). Meeting new people with similar interests was reported in the post-trip reviews, in accordance with the findings by Holden and Sparrowhawk, (2002). Current research findings reflect at least several commonalities in interpreting ecotourism travel experience by ecotourism motives according to previous literature (Eagles, 1992; HLA/ARA, 1994; Weaver, 2001; Wight,

2001; Holden and Sparrowhawk, 2002; Kerstetter et al., 2004). To market the ecotourism products and services to the current ecotourists market and potential ecotourists, both the “pull” and “push” factors are important. The existing and available nature resources are the pulling force that attracts the ecotourists to make their trips; the intrinsic curiosity about exotic nature and culture conditions is, on the other hand, the pushing force that prompts ecotourists to embark on the ecotourism journeys. Only with the mutual force of two sources of power would potential ecotourists be strongly motivated to make eco-trips. The following statements from some ecotourists demonstrate a direct focus on nature based discussion attributes:

The property is absolutely beautiful with lush grounds that are well manicured. (A reviewer complimenting the ecolodge grounds and ambiance)

The “Primary Forest Hike” with Research Scientist Biologist/Author – Phil (\$35) it was four hours from 8am-12pm and it was a relaxing walk through the rainforest. His knowledge made us more aware of the rainforest and life in it. (A reviewer complimenting the nature-based activity and the tour guide)

Walk through a wild bird aviary, or a butterfly observatory, watch spider monkeys or white-faced monkeys, feed hummingbirds or walk to the La Paz waterfall, all within the Lodge grounds. (A reviewer complimenting the availability of on-site wildlife viewing and interaction)

We saw the most monkeys of our entire Costa Rican vacation right here at Pachira–spider and howler monkeys. Sometimes it sounds like those howler monkeys are on the roof of your bungalow. Cool! We really enjoyed the hike through Tortugero rain forest, which lasted about 2 hours. (A reviewer complimenting the nature based activities)

The property is so large it never seems crowded, and we found a lot of adventurous, like-minded, cool people to dine with at the main lodge. (A reviewer complimenting the other guests staying at the same ecolodge)

We are also so happy to have met some great people traveling through from all over the world! (A reviewer complimenting the other guests staying at the same ecolodge)

Care for the sustainable development in ecotourism destinations and care for people and culture in the local communities were salient findings that have not been widely addressed by previous studies, particularly based on the exploratory angle using the first-hand spontaneous ecotourists responses. Ecotourists who had been aware of and communicated ideas about “ecofriendliness” showed their genuine respect for the local natural resources and native cultural origin. They showed the appreciation for the efforts made by local people and ecolodge management in constructing and operating the eco-friendly lodges, integrating the human needs to the nature setting in a perfectly matching way. However, the awareness of ecotourism development principle is low. The low frequency of mentioning ecofriendliness in the post-trip reviews reminds researchers and practitioners in the ecotourism field of the following: What prevents ecotourists from rediscovering the ecolodges’ ecofriendliness commitment after the completeness of the eco-trips? Is there any practice applicable to increase the awareness and spread its effect to a larger population of nature tourists? In light of ecotourists’ day-to-day interaction with ecolodge customer service staff and tour guides in the course of attending nature based activities, ecolodge management executives and staff should assume the roles of educating ecotourists about the significance of developing tourism in a sustainable, environmentally non-offensive way. They would be the best first-to-hand points of communicating the way how the sustainable development principles are committed by local societies and integrating the educational purpose into the provision of tourism service. The following statements from some ecotourists demonstrate a direct focus on “ecofriendliness” discussion:

The “Sustainability Tour” is also a must–to learn how much work and inventiveness is needed to create a high-caliber lodge experience without negatively impacting

the sensitive ecosystem. (A reviewer complimenting the ecofriendliness oriented activity)

When you realize that everything has been achieved in an environmentally friendly, responsible manner – it makes it that much more enjoyable! (A reviewer showing respect for the ecofriendly practices)

When we came back out of the forest, we were greeted by the boy's extended family, who were selling drinks and grandma was cutting up coconuts. It might sound touristy and staged, but it turned out to be fun, and I think everyone had a good time. And a beer tasted pretty good at that point. I also suspect this is how this family makes its living. They literally live right there between the edge of the forest and the water in a ramshackle house. (A reviewer picturing local people's life)

The lodge does all this via organic and local food, handmade furniture from locally and sustainably harvest trees, is powered by the sun and the stream, and is run by a tight knit family and community group committed to healthy people, a healthy forest and the proliferation of biodiversity. (A reviewer showing respect for the ecofriendly practices)

Second, the reported travel experiences and stays at ecolodges were unsurprisingly mainly composed of the supporting consumption experience that is an extension of the daily life. Like the general tourists, ecotourists purchase the travel experiences and pay for the exotic stay overseas in the ecotourism destinations. The minimum standards for acceptable performance on the products and service provided by ecolodges in ecotourism destinations were set up. If the performance exceeds their expectation (minimum acceptance standards), ecotourists would be pleasantly surprised and tend to compliment. If the performance is below the minimum acceptance standards, dissatisfaction could be generated. They tend to complain. For example, food was most often mentioned by ecotourists. A good dining experience could be satisfying but a bad one or a severe food-caused incident could ruin the total experience by generating dissatisfaction. As the nature of extracted online reviews on ecolodges, ecotourists invested substantial pieces of words on the ecolodge establishments and

room settings. In accordance with Chan and Baum (2007b), ecotourists were found having low expectation on experiencing luxuriousness in the “middle of jungle.” They had been aware of the limited resources available in the authentic and pristine area in remote ecotourism destinations. The basic accommodation conditions were the minimum standards for the stay. Ecotourists would not complain only if the basic facilities and amenities in the room and lodge wide were provided. However, if the accommodation conditions are below the minimum standard set by ecotourists, they tend to be less satisfied or even dissatisfied; and, that has a negative influence on the total travel experience. If ecolodges offer the unexpectedly extraordinary luxuriousness, ecotourists would be amazed and turn more satisfied. Service is the other important factor that was emphasized by ecotourists. Receiving the standardized service quality is a must and being provided the premium quality of service is a plus. The following statements from some ecotourists demonstrate a direct focus on related discussion on food, room features and service:

It was a large spread of fruit, rice and beans, sausages, breads, made-to-order omelets, etc. – very tasty! (A reviewer complimenting breakfast)

The food was not fabulous. The fish never seemed fresh and we consequently ordered red meat, which we rarely do. (A reviewer complaining about the food)

One night we did try the seafood restaurant in the front and my husband got really sick and the food wasn't great for the price...I recommend doing dinners in town. There is also a supermarket on the main road for snacks and sandwiches. (A reviewer reporting the problem of food provision)

Very clean and had all the basic necessities. If (you are) looking for luxury, hard to find in this area. (A reviewer talking about the room conditions)

It is a large room that has a huge window that is set perfectly to view the volcano from bed. It was a very clean room. (A reviewer complimenting the room décor and layout)

Not luxury AT ALL and if you enjoy interior rooms nicer than Super 8 hotels, you may want to look elsewhere. (A reviewer complaining about room décor and layout)

The staff – all of the staff gave 110% and really made our trip. They were down to earth, very personable, and extremely warm and friendly. (A reviewer complimenting the staff and their attitude)

This time the staff was just there sitting around either listening to music or talking to each other. They seemed lazy and unfriendly and they didn't seem to care about the customers very much. (A reviewer complaining about the staff's attitude)

Third, daily routine experience is an indispensable part of total tourist experience but has been rarely presented. Surprisingly, ecotourists reported the money issues at a very low frequency although they did say something about the value for money in relation to the ecododge room rates and food prices. Location is another topic that is most relatable to the daily routine experience. Ecotourists commented on the commuting difficulty between airport and ecolodges and between ecolodges and attractions at an occasional basis. Ecotourists are just too overwhelmed by the exotic nature resources and the wonderful involvement in pristine plantations and animals to remember the issues they have been worried in the daily routine experience. The following statements from some ecotourists demonstrate a direct focus on related discussion on “value for money” and “location” categories:

You would think after spending \$750.00 for two nights you would get better service. Breakfast not included. (A reviewer complaining about room rates and value)

But the 9 km non-paved bumpy road (pockmarked with innumerable potholes) from the main road up to the lodge made for an unbearable jarring ride. (A reviewer complaining about ecolodge accessibility)

The drive from the hotel to the actual town of La Fortuna was at least 30 min on bumpy dirt roads.(A reviewer complaining about ecolodge's being far away from town)

The Peace Lodge is out of the way really, except for the fact that it is by the active Poas Volcano. (A reviewer complimenting on the ecolodge's convenient location to nature-based attraction)

In summary, the identified 7 categories consisting of 26 attributes offered a comprehensive view ecotourists' travel experiences and stays at ecolodges. The categorization has demonstrated the proposed structure of tourist experience by Quan and Wang (2004): "nature" and "ecolodge settings" constructed peak touristic experience; "rooms," "ecolodge service," and "food" constructed supporting consumer experience; and, "ecolodge location" and "value for money" constructed daily routine experience.

Satisfaction and Electronic Word-of-Mouth

Ecotourists tend to be satisfied according to the findings of current study. The overall rating scores on the trips to and staying at ecolodges averaged at 4.1 out of 5 (i.e., "1—terrible," "2—poor," "3—average," "4—very good," and "5—excellent"), which is good news for the ecolodge management, providing the similar ecotourism products and service to the ecotourists included in this research. The close relationship between online travel reviews and word-of-mouth was confirmed in this research. It is predictable that satisfied ecotourists who provided the higher overall rating scores on ecolodges would generate the positive word-of-mouth. The dissatisfied ecotourists, on the other hand, would possibly retain the word-of-mouth tendency or generate negative word-of-mouth. The negative word-of-mouth would have greater negative influence on any business (Papathanassis and Knolle, 2010). The importance of online travel reviews being confirmed (Harrison-Walker, 2001; Gretzel and Yoo, 2008; Yoo et al., 2009; Papathanassis and Knolle, 2010), ecolodge management executives should value

these customer reviews posted on user-generated websites and make best use of this communication channel to improve the on-site provided products and services.

Typology of Factors Contributing to Satisfaction

Satisfaction with the stay at ecolodges goes far beyond the satisfaction with room size, cleanliness, or facilities' working condition in the room. The study results suggest that each ecolodge attribute plays a role in generating satisfaction/dissatisfaction. Some of them have the capacity to cause satisfaction while others could be salient to generate dissatisfaction or lower satisfaction level. Following the typology of the hotel service quality attributes proposed by Cadotte and Turgeon (1988), the ecolodge attributes could be classified: criticals, dissatisfiers, satisfiers, and neutrals. Criticals are the ecolodge attributes that are the source of both satisfaction and dissatisfaction. In the ecolodge context, these product or service attributes represent the key areas of ecotourism and accommodation business. The critical factors, having both positive and negative impact on generating ecotourists' satisfaction, include ecolodge ambiance, ecofriendliness commitment, room settings, customer service, specialized tour guide service, food quality and room rates. Criticals are aspects that ecotourists are not only delighted to discover but the things they might be disappointed with. For example, by staying at an ecolodge, ecotourists expect to witness the environmentally friendly facilities and practices surrounding the accommodation. The favorability with the performance on this ecolodge feature will increase satisfaction but the unfavorability with it will decrease satisfaction. Thus, criticals provide both opportunities and threats in the course of achieving customer satisfaction. The identification of criticals suggests that ecolodge managers should focus on enhancing the core performance of ecolodge as a lodging sector as well as its unique and meaningful commitment to sustainability in

tourism development. The minimum maintenance of these aspects is a must and a higher level of performance is a plus.

Dissatisfiers appear to be those ecolodge attributes where low level of performance on these features generates ecotourists' negative feeling. These negative feelings tend to lower satisfaction and sometimes generate dissatisfaction. The minimum performance on these attributes is necessary but the high level of performance might not be the area to be complimented. A significantly higher percentage of dissatisfied ecotourists talk about "noise" and "insect problem," represented by unfavorable wordings. The messed up reservation and unfavorable management policies also have a potential to cause dissatisfaction. Ecotourists might not be aware of these issues if they are properly handled; however, the presence of these issues will possibly result in dissatisfaction. For another example, ecotourists expect to visit the nature resources by staying at ecolodges, they could be totally disappointed if they found the nature attractions inaccessible, unattended, or poorly kept. They might not be extremely excited about the surrounding nature attractions, though, provided that these are what had been expected for long and somehow a sure thing. In addition, "lodge amenities," "room/bathroom facilities," "room amenities," and "ecolodge grounds/surroundings" were classified as dissatisfiers. The identification of dissatisfiers suggests ecolodge managers should invest efforts on eliminating or minimizing common elements jeopardizing ecotourists' satisfaction level.

Satisfiers appear to be those ecolodge attributes embracing ecotourists' compliments and the satisfaction with these attributes will add to the overall consumption satisfaction. However, the absence of these attributes will not necessarily

lower satisfaction or generates dissatisfaction. For example, ecotourists could be cheered up by attending the nature based activities and having fun. They will not necessarily be dissatisfied if there is no onsite nature based activities readily available. They could be still be satisfied with seeing the pristine plants and animals as well as having basic accommodation needs. The interaction with other guests and participation in the nature-based activities are the other two salient satisfiers. They reflect the primary travel motives of ecotourists indicated by ecotourist motivation literature (Eagles, 1992; Wight, 2001; Holden and Sparrowhawk, 2002; Kerstetter et al., 2004). The positive association between travel motivation and satisfaction was also confirmed by previous studies (Mannell, 1989; Ross and Iso-Ahola, 1991). That's, ecotourists form the satisfaction judgments based on the fulfillment of both motivations and expectations. From a management perspective, satisfiers represent an opportunity to stand out from the competition (Cadott and Turgeon, 1988). The identification of satisfiers suggests that ecolodge managers should work on some aspects that are unavailable at the mass lodging business and other aspects enhancing the environmentally relied features of similarly positioned lodging sectors.

Neutrals are the ecolodge attributes that are less frequently talked as well as have little impact in increasing or decreasing satisfaction. Neutrals include "ecolodge accessibility," "closeness to town," "closeness to attraction," "entertainment choice," "restaurant service," "food/drink price," "other prices," and "weather." They are not unimportant, though. They might previously be dissatisfiers (Cadotte and Turgeon, 1988). Only because the performance of these attributes is improved are they no longer generating dissatisfaction. They might fall into the category of dissatisfiers again if the

minimum performance of these attributes cannot be guaranteed. For example, ecotourists might be good with the current road condition leading to the ecolodge. If it became worse, they might be stopped from visiting. Neutrals might also be the satisfiers if the management could impose creative ideas on these components, which constitute ecotourists' travel related consumption experiences too. For example, ecotourists might be totally cheered up if they found something really fun and meaningful to do at the ecolodges as the onsite entertainment options. However, the classification of neutrals is tentative in nature, mainly due to the small pool of unfavorable comment on these attributes. Researchers of this study need a larger pool of unfavorable comment to examine their influence with respect to ecotourists' overall satisfaction.

The typology of proposed factors contributing to satisfaction in current study has overlaps with findings indicated by previous literature but is more specific and convincing. Following Herzberg's motivation-hygiene theory, Balmer and Baum (1993) and Chan and Baum (2007a) proposed that the true satisfiers/motivating factors were those factors that tended to be intangible in the tourism and hospitality industry and the dissatisfiers/hygiene factors were those tangible features. Some of the tangible ecolodge features identified in this research, e.g., room/bathroom facilities, room amenities, lodge surroundings, lodge amenities, nature-based attractions, turned out dissatisfying. The absence of the minimum recognized performance of these ecolodge features results in lowered satisfaction or dissatisfaction. Room décor and layout and food, tangible features of the ecolodge, turned out both satisfying and dissatisfying. They are the source of both satisfaction and dissatisfaction. Intangible ecolodge features, e.g., types of service provided, were not only satisfying but also dissatisfying.

In particular, ecofriendliness commitment by the ecolodge and the ambiance surrounding the ecolodge are paramount in generating either satisfaction or dissatisfaction. With the ecofriendliness committed practices present, ecotourists might appreciate the travel experiences and stays at ecolodges while they might depreciate it if this commitment was violated or neglected. Some other intangible experiences such as meeting other guests and participation in nature-based activities are satisfiers/motivating factors, increasing satisfaction.

Marketing Implications

User-generated Content and Ecotourism Research

The idea that user-generated content could be a marketing or research tool is no longer novel but substantially evolving. There have been 44 articles published with research using the user-generated content as research subjects in tourism and hospitality literature, and thus these articles were chosen as the research sample in a recent meta-analysis study by the primary researcher. The research published in these articles has had substantial foci on travelers' reported experiences and tourist satisfaction by use of either the quantitative review ratings or the qualitative textual feedback. However, no articles have set ecotourism as the research context, although the marketing and advertising efforts of ecotourism have been mediated because of the unavailability of proper channels. Only through these channels are ecotourism providers able to approach ecotourists exposed to the pre-travel information to make decisions. According to the World Ecotourism Summit (Giro, 2002), internet should be implemented as a communication medium at all points in the ecotourism chain. Ecotourists' travel experiences and stays at ecolodges were reported in this research by content analysis on the online user-generated ecolodge reviews. Moreover, the

researchers suggest that the ecotourism product and service providers should come up with new ways of handling the online and readily available user-generated content in order to make the best use of it. From a management's perspective, the user-generated websites not only allow travelers to post experience-based information but provide room and opportunity for the management executives to respond to their customers.

Ecotourism providers now have the platform to directly interact with ecotourists, free of restrictions on time or space, via the first-hand informational exchange over internet.

Ecotourism specific research using user-generated content as the research subject resources would be a beneficial contribution to the current deficiency in ecotourism consumer knowledge.

Satisfaction and Ecotourism Research

This research has contributed to ecotourists' satisfaction, an area in which research was necessary. Page and Dowling (2002) suggested that it was essential to measure ecotourists' travel experiences and focus on satisfaction to achieve the long-term success of ecotourism products. Researchers of this study agree with this statement. Relevant theories were referred to construct ecotourists' travel experiences (Wang and Quan, 2004), represented by staying at ecolodges, and factors contributing to satisfaction/dissatisfaction were identified and classified into the typology of hotel attributes proposed by Cadotte and Turgeon (1988). The peak touristic experience comes from the realization of major motives of making eco-trips while the supporting consumer experience reflects ecotourists' consumption experiences at nature characterized ecolodges. The causes of satisfying/dissatisfying ecotourism experience with ecolodges as an accommodation segment are not exactly the same to the hotel/motel attributes well recognized by the industry. Attributes such as room facilities,

service, price, and cleanliness are indeed important to the ecotourists; attributes like ecofriendliness commitment and ambiance of the ecolodges are the indispensable evaluation criteria ecotourists would refer to for satisfaction judgment, though. This research followed the pattern of factors contributing to satisfaction/dissatisfaction proposed by Cadotte and Turgeon (1988) to re-form the typology in the context of ecotourism in order to highlight the areas ecotourism management executives should rectify or maintain.

Satisfaction and User-generated Content

The pioneering data sourcing methodology, using the online customer reviews posted on the Virtual Travel Community (VTC), takes advantage of the richness, credibility, and genuine nature of self-reported experiences to enhance the generalization and usefulness of research findings. This study has indicated that the online user-generated content might be a good and feasible source for answering questions and finding results in the day-to-day service conducts of professionals at destination management organizations. First, the reviewers tend to rate the performance of tourism providers on the user-generated websites that are mostly third party and thought of being neutral. Secondary data, such as review rating scores given by reviewers and the number of website visitations, has the potential to become the data to be used in quantitative tourist satisfaction research. Second, the online reviewers express attitude tendency through the wording of textual reviews. Researchers, thus, have a reason to subjectively categorize favorability and unfavorability with certain topics discussed in the online travel reviews. By summarizing the favorability and unfavorability of certain areas, researchers could suggest the actionable ideas of improving tourism product design and service provision. Third, the

researchers of this study were able to propose a statistical way of utilizing both quantitative (review ratings) and qualitative data (categorized textual reviews), both of which are user-generated content, to answer research questions and provide practical indications. With the use of two-step statistical tests, this research empirically verifies the proposition of patterning causes of consumer satisfaction and dissatisfaction proposed by other scholars. The proposed methodology has the potential to be generalized to the relevant research in different contexts other than ecotourists' satisfaction research in ecotourism business.

Limitations and Future Research

The study has several limitations. Firstly, the number of 73 negative reviews might not be large enough to uncover all the negative issues reported by dissatisfied ecotourists pertinent to their travel experiences and stays at ecolodges. Although a small number of negative reviews is good news for practitioners, it limits the validity of qualitative studies that researchers need to meet the same issues reported again and again. Even though the split-half technique results showed the size of negative reviews was just fine, the influence of some rare attributes that were under-presented could not be detected using the proposed statistical procedure of classifying attributes to satisfaction. To cover all possible dissatisfying factors, the researchers plan to expand the number of negative reviews from a larger number of similarly positioned ecolodges in future research. The split-half technique would be continually used as a verification of adequacy of selected size for content data analysis samples. Secondly, it is still undecided how to validate the identity of reviewers posting the travel reviews online. Unlike the face-to-face interviews between interviewers and interviewees, the researchers could only accept the assumption that the online travel reviews posted by

reviewers are authentic and provide unbiased information to be used in the research. Thus, the results of this study are preliminary in nature. The researchers plan to conduct the qualitatively based interviews and focus group discussions, interviewing ecotourists in person on the same research topics. Even though it might be risky to compare the findings garnered from different methodologies, the researchers expect to have the findings of current research validated and problems addressed if possible. Thirdly, this research is limited due to the lack of reliability check on the favorability/unfavorability coding on the textual reviews for every single attribute. To ensure the accuracy of the database of quantitative analysis, a further reliability check process needs to be implemented.

Conclusion

Both the user-generated content and ecotourism research are fairly new research topics in the tourism field. Research on satisfaction in these contexts brings methodological and practical implications. As this empirical understanding of the ecotourists' travel experiences represented by ecotourists' staying at ecolodges develops and the corresponding factor structure of ecotourists' satisfaction predicts, management suggestions for ecotourism providers may become more effective and convincing. It ultimately enhances the experience of ecotourists and popularizes the ecotourism product development on a global scale.

APPENDIX A
DATA COLLECTION MATRIX FOR CONTENT ANALYSIS

Table A-1. Costa Rica ecolodges online user-generated reviews code book

Variable	Definition	Coding
1	Review ID – Unique number identifying each review	Num
2	Lodge ID – Unique number identifying each ecolodge	Num
3	Poster ID – The user ID of the reviewer/poster of the online review	String
4	Article title – Title of the textual review/article	String
5	Article full text – Full content of the textual reviews/article	String
6	Country, state, city of origin – Where the reviewer/poster was traveling from	String
7	Date of post – When the review was posted	Date (DD/MM/YYYY)
8	Overall rating – The overall satisfaction score given by the reviewer/poster with respect to the performance of ecolodge	1. Terrible 2. Poor 3. Average 4. Very good 5. Excellent
9	Rating by attributes (Value) – The satisfaction score given by reviewer/poster with respect to the performance of ecolodge in value for money	1. Terrible 2. Poor 3. Average 4. Very good 5. Excellent
10	Rating by attributes (Room) – The satisfaction score given by reviewer/poster with respect to the performance of ecolodge in room facilities	1. Terrible 2. Poor 3. Average 4. Very good 5. Excellent
11	Rating by attributes (Location) – The satisfaction score given by reviewer/poster with respect to the performance of ecolodge in physical location	1. Terrible 2. Poor 3. Average 4. Very good 5. Excellent
12	Rating by attributes (Cleanliness) – The satisfaction score given by reviewer/poster with respect to the performance of ecolodge in cleanliness	1. Terrible 2. Poor 3. Average 4. Very good 5. Excellent

Table A-1. Continued

Variable	Definition	Coding
13	Rating by attributes (Service) – The satisfaction score given by reviewer/poster with respect to the performance of ecolodge in providing service	<ol style="list-style-type: none"> 1. Terrible 2. Poor 3. Average 4. Very good 5. Excellent
14	Date of stay – When the reviewer/poster traveled to Costa Rica and stayed at this ecolodge	Date (MM/YYYY)
15	Trip type	<ol style="list-style-type: none"> 1. Family 2. Couple 3. Friends getaway 4. Solo travel 5. Business
16	Trip purpose – What the reviewer/poster was traveling for	<ol style="list-style-type: none"> 1. Leisure 2. Business
17	Trip companion – Who the reviewer/poster was traveling with	<ol style="list-style-type: none"> 1. Large group/tour 2. Family with teenagers 3. With spouse/partner 4. Family with young children 5. Extended family 6. With friends 7. Solo traveler 8. Other
18	Recommendation – The likelihood for the reviewer/poster to recommend this ecolodge to a friend or relative	<ol style="list-style-type: none"> 1. Yes 2. No
19	Poster age – Which age group represented the reviewer/poster's age	<ol style="list-style-type: none"> 1. 13-17 2. 18-24 3. 25-34 4. 35-49 5. 50-64 6. 65+
20	Poster gender	<ol style="list-style-type: none"> 1. Male 2. Female

APPENDIX B
ECOLOGGE PROFILE INCLUDED IN THIS RESEARCH

Table B-1. Costa Rica ecolodges

Ec lodge	CST	Price range (per room)	Region	Province	Location
Arenal Observatory Lodge		\$51-\$452+tax/night	North	Alajuela	Arenal Volcano National Park
Volcano Lodge & Gardens	Yes	\$105-\$188/night (incl. breakfast, tax)	North	Alajuela	Arenal Volcano National Park
Peace Lodge		\$255-\$495+tax/night	North	Alajuela	Vara Blanca
Bosque del Cabo Rainforest Lodge		\$80-\$550/night (incl. meals, tax)	Mid Pacific	Puntarenas	Puerto Jimenez, Osa
Arco Iris Lodge	Yes	\$25-\$175/night (incl. tax)	Monteverde	Puntarenas	Santa Elena, Monteverde
La Cusinga Eco Lodge	Yes	\$118-\$176/night (incl. breakfast, tax)	South Pacific	Puntarenas	Uvita
Monteverde Rustic Lodge		\$56-\$66+tax/night	Monteverde	Puntarenas	Santa Elena, Monteverde
Lapa Rios Ec lodge	Yes	\$150-\$480/night (incl. meals, tax)	South Pacific	Puntarenas	Corcovado National Park, Osa
Monteverde Lodge & Gardens		\$225-\$295+tax/night	Monteverde	Puntarenas	Monteverde Cloud Forest Reserve
Arenal Lodge		\$72-\$226+tax/night	North	Alajuela	Arenal Volcano National Park
Pachira Lodge		\$99-\$549+tax/night (incl. meals)	Caribbean	Limon	Puerto Limon

APPENDIX C CODING MATRIX FOR CONTENT ANALYSIS

	A	B	F	G	H	I	J	K	L
1	Category	Attribute/Case ID	5	7	30	52	56	58	73
2	Location	Accessibility						The road to the Hotel	the 8-9 km drive on
3		Closeness to town	it's at least a 20	the drive from the		It is down a long	If you have a vehicle,	I would recommend	
4		Closeness to attraction			Yes, it's out there,	We are very close to		Holy Cow, what an	
5	Lodge settings	Grounds/surroundings					The grounds are		beautiful grounds with
6		Ambiance							
7		Ecofriendliness							
8		Noise							
9		Other guests							
10		Amenities	But the property has	They also had an	The Lodge has a very	Their is also a	The grounds are	The Pool and Hot tub	
11	Room	Room/bathroom decore and layout	The room and the		ours seemed newly	It is a large room that	Our room was small	The Room was nice	
12		Room/bathroom facilities							
13		Room amenities	The great thing was	We stayed in the		It is a large room that	The view was	Holy Cow, what an	The volcano views are Ou
14		Insect problem	so there are lots of						
15	Service	Customer service		everyone was so	The staff, while not	Very friendly			Their staff is very Thi
16		Room/housekeeping service							
17		Entertainment choice							
18		Tour/tour guide service					(go on your own or	The Best Zip-Line in	
19		Restaurant service							
20		Reservation process							
21		Management policies						My only gripe was	
22	Food	Food quality	dinner was very	To be honest the	The dinners are	The food their was			The restaurant is The
23	Value for mone	Room rates							
24		Food/drink price		To be honest the	The dinners are	The food their was	Even if you don't get	My only gripe was	The
25		Other prices				In the moring we road			
26	Nature	Nature-based activities			We enjoyed a free,	In the moring we road	(go on your own or	The Best Zip-Line in	beautiful grounds with
27		Nature-based attractions	The great thing was	we were very lucky	Yes, it's out there,	It is a large room that	The volcano can also	Holy Cow, what an	The volcano views are Ou
28		Weather	There was cloud	we were very lucky	we hunkered down		was too cold to sit in		
29									

Figure C-1. The matrix sheet recording the key words and statements extracted from each review

APPENDIX D CODING SHEET FOR CONTENT ANALYSIS

	A	B	C	D	E	F	G	H	I	J	K	L	M
	ATTRIBUTE /CASEID	Accessibility	Closeness to town	Closeness to attraction	Grounds/surroundings	Ambiance	Ecofriendliness	Noise	Other guests	Amentities	decore and layout	Room/bathroom facilities	Room amentities
2	42	2	0	0	0	2	0	0	0	0	0	0	0
3	88	2	0	0	0	0	0	0	0	0	0	0	2
4	90	0	0	0	0	0	0	0	2	0	0	0	0
5	166	0	0	0	0	2	2	2	0	0	1	1	0
6	200	0	2	0	2	1	0	0	0	0	0	1	0
7	201	0	0	0	0	1	0	0	2	0	2	0	0
8	202	2	2	0	1	2	0	0	2	0	2	1	0
9	255	0	0	0	1	0	0	0	0	0	0	1	0
10	258	0	0	0	1	0	0	0	0	0	2	0	0
11	272	0	0	0	2	2	2	0	0	0	0	0	0
12	277	0	0	0	2	0	0	0	0	0	2	1	2
13	281	0	0	0	0	0	0	2	2	0	2	1	0
14	289	0	0	0	2	0	0	0	0	0	0	1	0
15	328	0	0	0	0	0	0	0	0	1	0	0	0
16	376	0	0	0	1	1	0	0	0	0	1	2	2
17	399	0	0	0	0	0	0	0	0	0	0	0	2
18	450	0	0	0	0	0	0	0	0	0	0	0	0
19	552	0	0	0	0	0	0	0	0	0	2	0	0
20	705	0	0	0	0	0	0	0	0	0	0	2	0
21	715	0	0	1	1	1	1	0	0	0	1	2	2
22	740	0	0	0	0	0	0	0	0	0	2	2	0
23	743	0	2	0	1	1	0	0	0	0	0	2	0
24	752	0	1	1	1	0	0	0	0	0	0	0	0
25	760	0	0	0	1	0	0	0	0	0	0	2	2
26	762	0	2	0	0	0	0	0	0	0	1	2	0
27	765	0	0	0	0	0	0	0	0	0	0	1	0
28	797	2	0	0	1	0	0	0	0	0	0	0	0
29	817	0	0	0	0	0	0	0	2	0	0	2	0
30	819	0	0	0	2	0	0	0	0	0	1	0	0
31	831	0	0	0	1	0	0	0	0	1	1	1	0
32	834	2	2	0	2	0	0	0	0	0	0	2	0
33	846	0	0	0	0	2	0	0	0	0	0	2	0
34	849	0	0	0	1	0	0	0	0	0	1	n/a	0
35	851	0	0	0	0	0	0	0	0	0	0	0	0
36	858	0	0	0	0	0	0	0	0	0	1	0	0
37	861	0	0	0	0	1	0	0	0	0	1	0	0
38	863	2	2	2	1	0	0	0	2	0	2	0	2
39	901	0	0	0	2	2	0	0	0	0	0	0	2
40	23	2	2	0	1	1	0	0	0	0	0	0	0
41	29	2	2	0	0	1	0	0	0	0	0	2	0
42	33	2	0	2	0	0	0	0	0	0	0	1	0

Figure D-1. The coding sheet in which each review was coded into “1” for favorable comments, “2” for unfavorable comments, or “0” for no mention for every single attribute.

APPENDIX E CODER TRAINING PROCESS

The coder training process was referenced to Neuendorf (2002, p. 134).

- Write codebook
- Coder training, with discussion
- Coders practice code together, engaging in consensus-building discussion
- Possible codebook revisions
- Coder training on revisions
- Coders practice code independently on a number of units representing the variety of the population
- Coders discuss results of independent practice coding
- Possible codebook revisions
- Coder training on revisions
- Coders code pilot subsample for reliability purposes
- Researcher checks reliabilities
- Possible codebook revisions
- Coder training on revisions
- Final, independent coding, incl. the final reliability check
- Coder debriefing

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BIOGRAPHICAL SKETCH

Weilin Lu was born in 1984 in Shanghai, China. She went to the schools in her hometown. With a bachelor's degree in Economics, she started working in the marketing research business in 2006. She was a market research analyst in travel and leisure field before she enrolled in the Department of Tourism, Recreation and Sport Management at the University of Florida in the fall of 2009. Her academic interest in travelers' behavior research was partially prompted by the previous working experience.

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