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Determining ecotourism satisfaction attributes – a case study of an ecolodge in Fiji

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ABSTRACT

Increasing competition and demanding ecotourists mean customer satisfaction is critical for any ecolodge business. Ecolodges are a unique accommodation type in the tourism market that attempt to represent ecotourism principles. This study uses Llosa's tetraclasse model to explore underlying satisfaction attributes within an ecolodge located on the island Kadavu, Fiji. Using semi-structured interviews and focus groups, supplemented by online reviews, this study identifies key moments of positive and negative experience during guests' stay in the ecolodge. The results of this study provide ecolodges and other small-scale accommodation businesses with specific attributes that heighten satisfaction and identify those attributes that lead to dissatisfaction.

Introduction

The tourism industry in Fiji is the largest contributor to the country's gross domestic product. Fiji has a high level of tourist arrivals, relative to the resident population of more than 840,000 visitors in 2017 (Fiji Bureau of Statistics, 2018). In order to manage any negative impacts of tourism development, the government of Fiji over the past two decades, in collaboration with non-governmental organizations, formulated sustainable tourism growth plans and policies through recent tourism development plans (Ministry of Industry Trade and Tourism, 2018). These plans encouraged and promoted ecotourism initiatives that strive to maximize positive environmental and socioeconomic impacts and minimized negative impacts of the host community. According to the UN Pacific Strategy 2018–2022 (United Nations, 2017), the government of Fiji recognizes that ecotourism has the potential, not only to provide quality employment, income and business opportunities for local people, but also to act as a catalyst for the preservation of the natural environment and indigenous culture (Harrison & Brandt, 2003). Despite discrepancies in ecotourism and sustainable tourism policy formulation *vis-a-vis* realities on the ground (Bricker, 2003), the tourism development plans have led to a rise in the ecotourism market in Fiji (National Development Plan, 2017). Fiji has also reported an increase in demand for ecotourism (Blue and Green Tomorrow, 2014; Farrelly, 2011). This demand has been met with a rise in ecotourism businesses offering nature-based activities and cultural

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forms of tourism (National Development Plan, 2017). Ecotourism represents a small but growing segment of the global tourism market (The International Ecotourism Society, 2006), with growth rates exceeding those of mainstream tourism. Now, 35% of tourists are more likely to book an 'eco' holiday (GlobalData Consumer, 2017).

Due to the increased demand for ecotourism, it is important that tourist service providers know what factors contribute to tourist satisfaction and dissatisfaction in order to retain their customers (Castellanos-Verdugo, Vega-Vázquez, Oviedo-García, & Orgaz-Agüera, 2016). Increased competition among ecotourism destinations present challenges for ecotourism business operators in determining attributes that influence ecotourists' satisfaction (Liu, Xiao, Li, & Pechacek, 2013). There have been many studies assessing tourists' satisfaction with ecotourism experiences in various locations including Africa (Lindsey, Alexander, Mills, Romañach, & Woodroffe, 2007), Asia (Hasegawa, 2010), Europe (Oliveira & Pereira, 2008) and South and Central America (Lu & Stepchenkova, 2012; Torres-Sovero, González, Martín-López, & Kirkby, 2012). However, the satisfaction of ecotourism experiences in the Pacific region has been under-researched. Therefore, because of the importance of satisfaction for the ecotourism experience and the importance of tourism for Pacific communities, there is a need to better understand satisfaction with ecotourism experiences in this context.

Numerous studies have demonstrated that higher customer satisfaction leads to profitability, increased customer repurchase intentions or retention, and higher levels of consumer trust and loyalty for service organizations (Bernhardt, Donthu, & Kennett, 2000; Kassim & Asiah Abdullah, 2010; Santouridis & Trivellas, 2010). However, Dolnicar, Coltman, and Sharma (2015) point out that a direct positive relationship between satisfaction and revisit intention is not so straight forward. Potential problems include the complexity of the links between satisfaction and revisit intention where other causal factors may be overlooked; problems with consistency in measuring satisfaction and revisit intention; and variability due to response bias and method bias. Although overall satisfaction leads to positive outcomes, there is a need to identify which service attributes or factors are more important and should be improved to increase satisfaction and which attributes are not so important or hold little influence over customer satisfaction. This means not all service attributes have the same influence on satisfaction. Some attributes strongly influence satisfaction while others have little effect (Llosa, 1997, 1999). Therefore, this knowledge represents a strategic goal for accommodation managers who, with limited resources, must focus on the most impactful dimensions of their service.

The overall aim of this study is to determine the attributes influencing ecotourists' satisfaction in Fiji. This study uses Llosa's (1997, 1999) Tetraclasse model to determine and classify hotel attributes contributing to satisfaction. Using this model, the study categorizes attributes into four types of tourist satisfaction: basic, plus, key and secondary elements. The study investigates satisfaction attributes and characteristics of tourists of ecotourists at Matava Resort in Fiji using qualitative interview data supplemented by online reviews. Accordingly, the objectives of this research are to (1) develop a conceptual framework of tourist satisfaction of ecotourism; (2) determine tourist satisfaction attributes of ecolodges; and (3) assess the relationship between ecotourist characteristics and satisfaction with respect to an ecotourism accommodation in the Pacific context.

This research focuses on ecolodges as opposed to other ecotourism activities such as village visits, visiting ecoparks and similar experiences. Lai and Shafer (2005) indicate that ecolodges

are a sizeable sector in the ecotourism market that encompasses accommodation and other ecotourism experiences like cultural visits, nature treks, and tours. Ecolodges are a suitable segment to study as they encompass all these other experiences. The outcomes for this research will provide businesses in Fiji and other developing countries with information on ecotourists' satisfaction attributes that can address critical areas of service delivery.

Literature review

Ecotourism

Discussions surrounding the definition and conceptualization of ecotourism have been going on for at least three decades now (Conway & Cawley, 2016), resulting in dozens of definitions of the concept (Donohoe & Needham, 2006). Ecotourism involves the promotion of nature-based tourist activities, meaningful cross-cultural experiences, ecological and cultural conservation, and sustainability by educating tourists and maximizing benefits for local stakeholders (Das & Chatterjee, 2015; Fennell, 2014). Ecotourism is globally regarded as a key strategy in response to tourists' demand for authentic experiences involving nature and culture (Lu & Stepchenkova, 2012). In 1999, Fiji adopted its National Ecotourism Policy (NEP) which was formulated to meet the needs of different stakeholders such as local communities, tourism associations, and non-governmental organizations (Bricker, 2003). The NEP defined ecotourism as follows:

> A form of nature-based tourism which involves responsible travel to relatively undeveloped areas to foster an appreciation of nature and local cultures, while conserving the physical and social environment, respecting the aspirations and traditions of those who are visited, and improving the welfare of the local people. (Harrison, 1998, p. 5)

Today's tourists have become more ecologically conscious than before (Dewald, Bruin, & Jang, 2014), and it comes as no surprise that the demand for more environmentally and socioculturally friendly products has increased significantly since the turn of century (Jang, Kim, & Bonn, 2011). Starmer-Smith (2004) predicted that by 2024, ecotourism travel will grow three times faster than other leisure holidays. Ecotourism is seen as an economic solution and facilitates raising the local community's standard of living. In reality, this is not always the case, as the local communities rarely share in the profits or any benefits (Cater, 2006). Factors like revenue leakage, a limited number of tourists and lack of the local community's participation and control are some major drawbacks affecting this type of development. Despite problems in the implementation of ecotourism (Wall, 1997), there is still widespread belief that ecotourism can help solve tourism development problems, if managed properly in a holistic manner that includes economic, environmental and sociocultural aspects (Donohoe & Needham, 2006). Ecotourism is perceived to be a beneficial industry and a better alternative to extractive industries such as mining and logging. Ecotourism can ensure the local people and the tourism industry work closely together to achieve common conservation goals (Sharpley, 2006).

Eco-oriented accommodation

Eco-friendly or eco-oriented hotels refer to accommodation or lodging establishments that are committed to performing various ecologically sound practices such as saving water,

saving energy, waste reduction programs and local involvement (Manaktola & Jauhari, 2007). Wallace and Pierce (1996) highlight six principles that an ecolodge should practice: (1) minimize negative impacts to the environment and the local people; (2) understand and be aware of the local area's ecology, local and cultural traditions and the degree of interaction and impact of visitors with these systems; (3) implement natural environment reserves and wildlife conservation; (4) involve local people in the development of the ecolodge to determine the number of visitors in the area; (5) share the economic benefits with local people that complement rather than replace their customs or traditional practices, for example, fishing, farming and traditional performances; (6) provide opportunities for both visitors and local people to learn about ecotourism practices of the resort and provide employment for local people specializing in nature-based, culture-based and other ecotourism activities. Despite the fact that ecolodges are an integral part of the ecotourism sector, empirical research on ecolodges is limited (Fennell, 2014; Kwan, Eagles, & Gebhardt, 2010). Laarman and Durst (1987) develop a useful ecolodge accommodation spectrum, outlining soft and hard ecotourism on a continuum. Other studies analyzed performance indicators and satisfaction levels (Osland & Mackoy, 2004) finding that sustainable goals are the most frequently mentioned indicators.

Given the popularity of the eco-oriented initiatives in the accommodation sector, many chain-affiliated hotels have adapted ecotourism initiatives to conserve and preserve natural resources, reduce solid and water waste, recycle and reuse materials, educate people about these initiatives, include organic food in hotel menus, and get involved in community activities (Rahman, Reynolds, & Svaren, 2012). As the sector grows and many tourist establishments want to capitalize on this market, there is an increasing need for accreditation and certification of ecotourism products and services in order to distinguish ecolodges from traditional resorts (Fennell, 2014). Ecotourism certification programs in the tourism industry serve as important tools for distinguishing genuinely responsible companies, products, or services from those that are merely using terms such as eco- or sustainable as a marketing tool to attract consumers (Honey, 2002).

Tourist satisfaction

Tourist satisfaction has received considerable attention from tourism scholars, as holiday experiences have positive effects on tourism satisfaction and overall life satisfaction (Chen, Huang, & Petrick, 2016). Tourists' satisfaction is one of the most important issues for the tourism industry as it can determine the success or failure of any tourism business. According to Bowen and Chen (2001), high levels of customer satisfaction elicit positive images of product or service, but they also motivate customers to make recommendations, pay more and increase the number of repeat visits in the future. Although customer satisfaction is one of the most fundamental issues in consumer and marketing research, it can be used and applied in different ways, resulting in considerable debate about its meaning and application (Wilson, Zeithaml, Bitner, & Gremler, 2012).

Satisfaction models

Many studies in tourism focus on defining and measuring tourist satisfaction using diverse approaches, including Oliver's disconfirmation paradigm (Oliver, 1980), equity theory,

(Oliver & Swan, 1989), the SERVQUAL model (Parasuraman, Zeithaml, & Berry, 1985) and Herzberg's dual-factor job satisfaction theory (Herzberg, Mausner, & Snyderman, 2011). Although previous scholars vary in their definition of and distinction between quality and satisfaction, it is evident that satisfaction involves more than just customers' opinions towards a product/service/firm and includes their feelings during and after the experience (Kim & Park, 2017).

The SERVQUAL model, also known as Service Quality model, indicates that people do not see the quality in any particular way, but rather have multiple criteria of quality for the procurement of a product or service, for example, the durability or reliability of cars (Wilson et al., 2012). Parasuraman et al. (1985), developed this model and identified five specific dimensions of service quality namely; reliability, responsiveness, assurance, empathy and tangibles. Khan (2003) adapted the SERVQUAL model to be used to measure customer satisfaction in ecotourism and termed this 'ECOSERV'. This model included a new variable, the eco-tangible dimension, where tourists relate quality to an ecotourism destination (Sapari, Shuib, Ramachandran, & Herman, 2000). This eco-tangible factor refers to physical facilities, amenities, equipment, environment, other guests, view or ambience. One criticism of Khan's model is that it only measures service quality expectations and does not include key service quality variables of ecotourism such as education and learning in the eco-tangible dimension. Education and learning are vital ecotourism experiences and a framework for satisfaction assessment should take this into account.

As a result, some tourism researchers have used and adapted Herzberg's Job Motivation and Satisfaction dual-factor theory to explore and explain attributes in ecotourism that influence the satisfaction of visitors (e.g. Chan & Baum, 2007). Herzberg's Motivation – Hygiene theory of Job Satisfaction (Herzberg et al., 2011) states that underlying satisfaction and dissatisfaction form two constructs: hygiene factors (dissatisfiers) and motivators (satisfiers). This theory recognizes that certain factors only increase satisfaction (motivators), while others only dissatisfy (hygiene factors) when absent or not performed well. The theory argues that the opposite of job satisfaction is not job dissatisfaction but no job satisfaction. This approach allows a deeper insight into the service experience and aims to identify priority attributes of service experiences. At the same time, this model also identifies which attributes to focus on and improve in order to increase satisfaction and avoid dissatisfaction.

Many tourism scholars who are influenced by Herzberg's dual-factor theory tend to view satisfaction as a bidimensional construct (Alegre & Garau, 2010; Pritchard & Havitz, 2006). Camelis and Maunier (2014) criticize these studies as being limited in scope as they only focus on a limited number of service attributes and overlooked the complexity of the tourism experience. Llosa's tetraclasse model overcomes this criticism. The tetraclasse model provides a more holistic approach by providing a framework for classifying attributes according to their contribution to guest satisfaction.

The Llosa's tetraclasse model

The tetraclasse model was created and developed by Llosa (1997, 1999; see Figure 1) and classifies four types of contributions to the service experience:
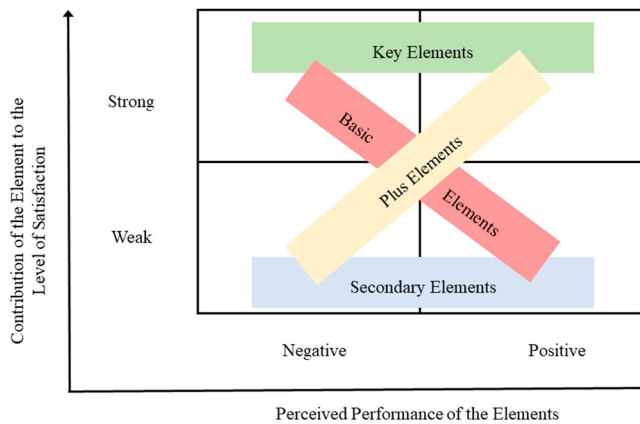
Figure 1. The tetraclasse model: the four service elements that contribute to customer satisfaction. Source: Llosa (1997).

(a) *The basic elements* refers to accommodation attributes that when negatively evaluated by guests, strongly contribute to dissatisfaction. On the other hand, when they are evaluated in a favorable way, they only slightly contribute to satisfaction. Basic elements are those hotel attributes that guests expect a hotel to possess. Examples can be the cleanliness of rooms, room amenities, food and other attributes that accommodation places are expected to have. Should services and products fall below these expectations, guests are normally very unhappy and this leads to dissatisfaction. However, should the accommodation place meet the guests' expectations, this only slightly contributes to guest satisfaction. Overall satisfaction only increases when the hotel exceeds expectations.

(b) *The plus elements* refer to accommodation attributes that, when evaluated positively, strongly contribute to the level of overall satisfaction. However, they only slightly contribute to dissatisfaction when they are evaluated in an unfavorable way. These are attributes of services or products that guests do not expect but are presented with during their stay. Examples might include an upgrade to a better room or a free voucher for an activity. Guests tend not to expect these attributes; therefore, if they are not provided, this does not increase dissatisfaction for guests. On the other hand, the presence of these attributes contributes strongly to guests' satisfaction.

(c) *The key elements* refers to accommodation attributes that strongly influences the overall satisfaction, whatever their evaluation is. Examples can include the restaurant service in an ecolodge, nature-driven activities and closeness to natural attractions. These attributes are key satisfiers for guests, in that they strongly contribute to satisfaction when evaluated in a positive way. They also have a strong influence on dissatisfaction when evaluated in a negative way.

(d) *The secondary elements* do not have a significant impact on overall satisfaction, whatever their evaluation is. Hotel attributes that fall under this category are normally those elements that guests expect the resort to have and probably choose the resort due to these attributes. For example, remoteness of the location. Some guests choose this because they want to get away from the hustle and bustle of their everyday lives.

Empirical studies on a wide range of service activities have applied this model and confirmed the existence of these four categories of service attributes (Bodet, 2006; Robinot & Giannelloni, 2010). The reliability of this model has also been confirmed in research conducted by Bartikowski and Llosa (2004) and Ray and Gotteland (2005). Camelis and Maunier (2014) note that this model follows two constructs. First, certain attributes will have a stable effect on customers' overall satisfaction, regardless of how they have been evaluated (i.e. strong contribution in 'Key' elements versus weak contribution in 'Secondary' elements). Thus, the performance of key elements should be monitored and managed efficiently because they contribute strongly to customer satisfaction. Key elements can refer to ecotourism practices of an accommodation place or the building materials used. Another key element is the quality of food or menu with the inclusion of indigenous local organic food.

Second, other elements have a variable effect on satisfaction. This means that their impact will depend on the performance of that attribute as perceived by customers. A distinction should be made between 'basic' elements and 'plus' elements. When guests evaluate a 'basic' element negatively, this will strongly influence the overall satisfaction but a favorable evaluation of a basic element will have little impact on satisfaction since guests do not expect this. In the accommodation sector, basic elements refer to facilities, room, reception, customer service or surrounding/landscaping. The same effect applies to 'plus' elements. The existence of this element increases guests' overall satisfaction as they do not expect this. However, 'plus' elements do not influence or contribute very little, to guests' dissatisfaction when they are not provided or when they are evaluated in an unfavorable manner.

Satisfaction attributes and ecolodges

Since this study focuses on ecolodges, it is imperative to also look at certain key factors that are pertinent to hotel customer satisfaction and hotel selection (Table 1). Qu, Ryan, and Chu (2000) identify six factors affecting the overall customers' satisfaction with hotels: the quality of staff performance, the quality of room facilities, and the value for money, variety and effective services, and business-related services, and safety and security. Heung (2000) identifies eight dimensions including food and beverage, service quality and value, and augmented product quality. On the other hand, Matzler, Renzl, and Rothenberger (2006) report that the key determinants of tourists' satisfaction with hotel services are the rooms, wellness area, friendliness and service, reception, restaurant and breakfast.

Drawing from Herzberg's dual-factor theory, Lu and Stepchenkova (2015) identify 26 hotel attributes of ecolodges in Costa Rica that are categorized into 7 groups: ecolodge settings, nature, service, location, food, room and value for money (Table 2). Table 2 lists seven categories of ecolodge satisfaction attributes. This study will use the tetraclasse model to assess Lu and Stepchenkova's satisfaction attributes in the context of an ecolodge in Fiji.

Methodology

Interviews, focus groups and secondary sources were used in this study. This research uses a theory-led single case study approach. Theory-led single case study refers to a case study

Table 1. Hotel satisfaction attributes.

Category	Attributes	Source
Factors affecting customer satisfaction with hotels	Quality of staff performance Quality of room facilities Value for money Variety and effective services Business-related services Safety and security	Qu et al. (2000)
Underlying dimensions of tourists' perceptions	Service quality and value Food and beverage quality Augmented product quality Reliability Core product quality Availability of supplementary service Value-added service Convenience	Heung (2000)
Satisfaction with service dimensions	Rooms Wellness area Friendliness and service Reception Restaurant and breakfast	Matzler et al. (2006)

Source: author compilation.

Table 2. Ecolodge satisfaction attributes.

No	Category of attributes	Attributes
1	Ecolodge settings	Grounds/Surroundings Lodge amenities Ambience Eco-friendliness Noise Other guests
2.	Room	Room/Bathroom décor and layout Room amenities Room/bathroom facilities Insect problem
3.	Nature	Nature-based activities Nature-based attractions weather
4.	Service	Customer service Tour/tour guide service Entertainment choice Restaurant service Management policies Reservation process
5.	Food	Food quality
6.	Location	Closeness to town Accessibility Closeness to attraction
7.	Value for money	Food/drink price Room rates Other prices

Source: Lu and Stepchenkova (2015).

that utilizes a theory or concept to conduct research and study into a single unit or case study (Simmons, 2012). A case study is defined by Yin (2009) as an empirical inquiry that investigates a contemporary phenomenon within its real-life context especially when the boundaries and scope of the phenomenon and the situation and context are not clearly defined. A case study as a research method has been used successfully by

many researchers in the tourism field in relation to topics such as perceptions and socio-demographic characteristics of ecotourists (Weaver, 2002), and ecotourists segmentation and price levels (Pearce & Wilson, 1995).

Context: Matava resort

Matava Resort is located on Fiji's fourth largest island, Kadavu, which is situated 100 km south of the main island of Viti Levu. There is limited road infrastructure on Kadavu Island. The main mode of transport is by boat. The resort and many other areas of the island currently have no access to the Internet. There are three flights to Kadavu every week, and it is serviced by Fiji Link, a Fiji's domestic airline, on aircraft which seats 14 passengers. Kadavu is surrounded by the Great Astrolabe Barrier reef, the third-largest barrier reef in the world. The resort has aligned itself as an eco-accommodation and over the years has put in place eco-oriented policies. The owner calls the resort *Matava Fiji's Premier Ecotourism Resort* due to its ecotourism practices (Figure 2).

Data collection methods

In order to collect rich data, this single case study combines interviews with guests, a focus group discussion with guests, and the use of secondary data in the form of online reviews
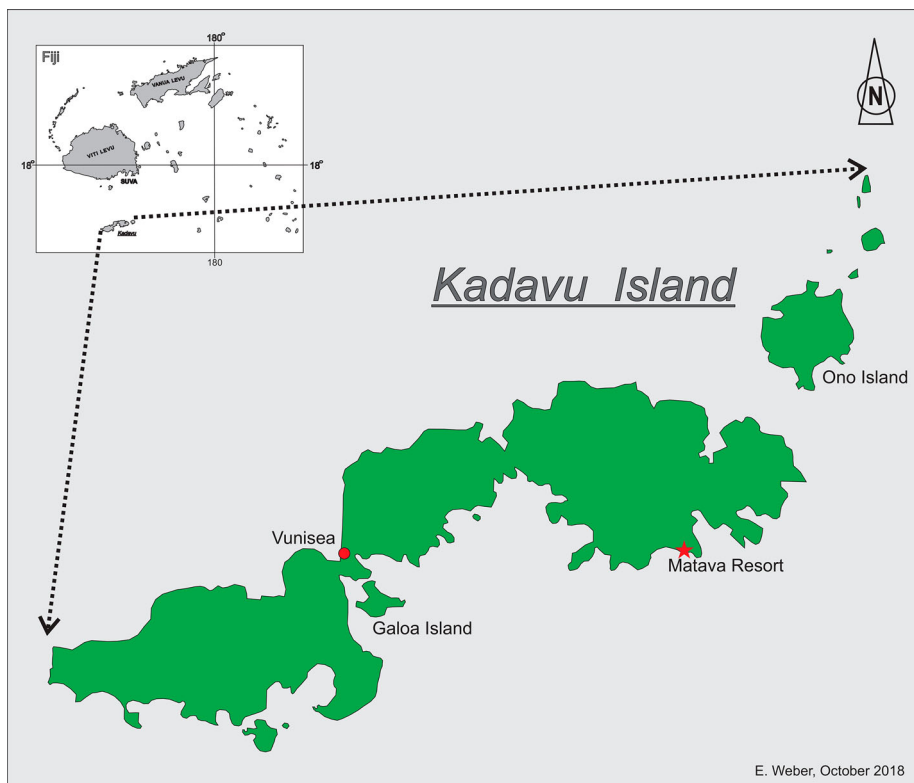

Figure 2. Map of Kadavu Island in the Fiji Islands.

from TripAdvisor. The ecoresort has the capacity to accommodate up to 22 guests. There were a total of 11 guests at the resort at the time of data collection. All guests participated in the research.

Semi-structured interviews were conducted with eleven guests at Matava Ecolodge in May 2017 (Table 3 for characteristics of respondents). Based on an interview guideline, these conversations covered questions related to demographic and socioeconomic characteristics of participants, destination choice and preferences (including past experiences, sources of travel information and motivations for travel), accommodation experience and satisfaction (Matava ecolodge experience including amenities and eco-related activities/initiatives), and experiences and satisfaction with food and cultural activities. Furthermore, guests' knowledge of ecotourism or eco-friendly practices in the hotel, and the importance of these practices was asked.

Data collection with ecolodge guests was further undertaken via a focus group. Focus groups are carefully planned discussions with a small group of people on a focused topic, and the group setting and dynamics are integral to focus group data collections (Guest, Namey, & Mitchell, 2013). An important feature of this qualitative data collection method is that group discussion uses important elements of normal human conversation, that is, sharing of experiences, perceptions, opinions, and reactions, which also triggers or helps other group members to remember past experiences that enable the group to address the research objectives (Strauss & Corbin, 1998). This method allows an open forum for discussion, argument, probing and challenging viewpoints and their underlying reasons or explanations in a safe environment. Data were collected in the form of a group discussion following the Pacific way of a *talanoa* (free and open discussion). Tourists were part of a *yaqona* (kava) ceremony where they sat together to discuss their experiences. In this

Table 3. Characteristics of the eleven research respondents.

Category	Frequency
Gender	
Male	3
Female	8
Age	2
20–29	3
40–49	6
50–59	
Nationality	
United States	4
United Kingdom	3
Australia	2
France	2
Highest level of education	
Tertiary	11
Income	
High income (self-reported relative income)	11
Review of Tripadvisor comments visiting Matava	
Yes	11
Main motivation for visiting Matava	
Diving	5
Off-the beaten track	4
Returned because had a positive experience	2
Aware of remoteness of Matava	
Yes	11

Source: author fieldwork.

relaxed setting, the guests freely shared their experiences at Matava resort. It also allowed the guests to open up about issues that they were not happy with and things they were satisfied with at the resort. Although researchers tend to allow the participants to speak freely, the researcher prepared a set of topics and prompts to direct dialogue in the desired direction that relates to the issue of study. The aim was to elicit guests' stories and experiences with Matava eco-related activities and amenities. The session lasted about two hours, and detailed notes were taken.

In addition to interviews and the focus group, a total of 77 online reviews written by previous Matava Ecolodge guests on TripAdvisor covering the period 2014–2017 were analyzed. The resort has undergone major renovations and changes in management in 2014; thus, only reviews post these changes are considered for this analysis. TripAdvisor is a popular travel website company providing hotel bookings as well as reviews of travel-related content. Users can add their reviews of their travel or accommodation by ranking their experiences (overall satisfaction, value for money, location, sleep quality, rooms, cleanliness and service) and further elaborate on the satisfaction or dissatisfaction through comments which are visible to other users. The platform contains more user-generated content than other travel websites (Huang, Basu, & Hsu, 2010; Mate, Trupp, & Pratt, 2019). TripAdvisor reviews written by recent Matava Resort guests thus have the potential to complement the empirical data collected through face-to-face interviews and focus group discussions.

Analysis of data

The study implemented a thematic analysis technique for the data collected, that is, from interviews, the focus group and online reviews. Thematic analysis is a type of qualitative analysis that is used to analyze classifications and present themes or patterns that relate to that data (Boyatzis, 1998). The study involves the following steps as identified by Daly, Kellehear, and Gliksman (1997), which are the process of coding in six phases to create established, meaningful patterns. These phases are data familiarization, generating initial codes, searching for themes among codes, reviewing themes, defining and naming themes, and producing the final report. The process involves reading through textual data collected, identifying themes in the data, coding these themes, and then interpreting the structure and content of the themes (Guest et al., 2013).

Thematic content analysis is also applied to online reviews from TripAdvisor.com collected in this study to identify positive and negative comments on the different categories or themes within the reviews and form conclusions on the overall satisfaction or dissatisfaction of ecotourists visiting Matava Resort. The analysis focuses on attributes that satisfy ecotourists and provides an insight into the ecotourism market at Matava resort and in Fiji as an eco-destination. The authors apply an interplay of deductive and inductive analysis. First, the authors coded attributes or themes according to Lu and Stepchenkova's (2015) seven ecolodge categories of attributes. Second, apart from these theory-driven attributes, the authors identified other emerging attributes that are unique to Fiji (see Table 4). In a further step, this study will use the tetraclasse model to assess Lu and Stepchenkova's (2012) satisfaction attributes to identify and group themes emerging from the data collection.

Table 4. Extended ecolodge satisfaction attributes.

No	Category of attributes	Attributes (Lu & Stepchenkova, 2015)	New attributes
1	Ecolodge settings	Grounds/Surroundings	Culture
		Lodge amenities	Cultural events
		Ambience	Herbal farm/food
		Eco-friendliness	Local engagement
		Noise	Marine reserve
		Other guests	Solar power
2.	Room	Room/Bathroom décor and layout	
		Room amenities	
		Room/bathroom facilities	
		Insect problem	
3.	Nature	Nature-based activities	
		Nature-based attractions Weather	
4.	Service	Customer Service	Diving instructor service
		Tour/tour guide service	Management services
		Entertainment choice	
		Restaurant service	
		Management policies	
		Reservation process	
5.	Food	Food quality	Cultural (local) food
6.	Location	Closeness to town	Remoteness
		Accessibility	
		Closeness to attraction	
7.	Value for money	Food/drink price	
		Room rates	
		Other prices	

Source: Lu and Stepchenkova (2015); authors' fieldwork.

Results

Ecolodge satisfaction attributes

This section highlights the ecolodge attributes that influence the satisfaction of guests. As noted above, ecolodges are a unique accommodation type in the tourism market that attempts to represent ecotourism principles (The International Ecotourism Society, 2006; Wallace & Pierce, 1996). The collected data indicate that the majority of themes and attributes identified in the study are in accordance with previous literature, particularly with the study by Lu & Stepchenkova (2012). Seven categories of satisfaction attributes of ecolodges were identified as per Lu and Stepchenkova (2012), namely *ecolodge settings, food, location, nature, room, service, and value for money.*

However, the authors discovered a number of new emerging attributes in this study which were not acknowledged by Lu and Stepchenkova (2012) and are unique to this study. The new attributes fall under the following categories: *ecolodge settings, food, location* and *service*. There were no new attributes identified under the *nature* category, *room* category and *value for money* category. The *nature* category refers to nature-based attractions (beach, flora and fauna, marine life, ocean, views, waterfall and weather) and nature-based activities (bird watching, diving, fishing, kayaking, picnic, snorkeling, swimming and trekking). There were a large number of positive comments about nature. Given that nature is such an essential ingredient of ecotourism, it forms a key element. Many guests commented on the water activities. The *room* category refers to attributes such as room layout, room design, insects and bugs, bathroom facilities or layout, and room amenities. The comments regarding the room were overwhelmingly positive. The *value for money* category refers to the price of rooms, price of meals and

drinks and other prices. In general, there were polarized views about value for money regarding the ecolodge. Some guests perceived Matava ecolodge as good value for money, while other guests felt that they were being ripped off. Several guests highlighted the incongruence between the marketing and promotion of this ecolodge and the actual service and quality of the product. The new attributes identified in this study will be discussed below under the respective categories (Table 4).

Ecolodge settings

Under the *ecolodge settings* category, the emerging attributes are culture, cultural events, herbal farm/food, local engagement, marine reserve and solar power. Guests predominantly described their positive experiences and satisfaction in the context of village visits, participation in cultural events, experience of local cuisine and interaction with local people.

> Our large group thoroughly enjoyed the stay, but the visit to the village is more memorable than the resort. (Male, 34–49 years, USA – Tripadvisor)

> But here you really get a chance to know the Fijian people of Kadavu. (Female, 55–64 years, UK – TripAdvisor)

Unfavorable comments were generated towards the resort for not including more interactions with local people, little inclusion of local foods or traditional menus.

> Hoping to hear some local ballads or music but no one at the resort could sing during the kava ceremonies we have some nights. (Female, 55–64 years, UK – Focus Group)

> We were told that everything is sourced locally, but we had more western cuisine rather than local food with local ingredients. (Male, 25–34 years, Australia – Interview)

Guests found the ecolodge engaged in 'knowledge of eco-practices', and this raised their expectations. In some cases, they were happy that the resort had environmental practices but they were also dissatisfied with some actions of staff and or services of the resort in this category. For example, one guest, in particular, was not happy with how the staff left the water running.

Service

Under the *Service* category, emerging attributes are 'diving instructor service' and 'management services'. As a core service or activity of the resort, most guests relied on the expertise and services of the staff of the resort dive center. Most importantly, they relied on the dive instructor's knowledge of the reefs and surrounding waters in order to have great dive experiences during their stay at the resort.

> Excellent experienced dive masters who knew what they were doing and were excellent on health and safety whilst being chilled. (Male, 35–49years, USA – Interview)

> One of the owners joined us for dinner on our first night and regaled us with stories of the resort and his interactions with the local people. (Female, 65+, UK – Interview)

> The owners were so different from the wonderful staff at the hotel. Briefly said hello to us and sat away from us. But service especially from Sala was exceptional, she entertained us every evening that we stayed there. (Female, 25–34 years, USA – TripAdvisor)

The second attribute in this category, the 'management services' attribute, was found to be lacking by some guests. This is largely due to the fact that the management team does not reside or is not physically present at the resort, but rather manage the day-to-day activities from the USA. Therefore, interactions with the management team are very little or none at all.

Food

Under the *food* category, most guests were not satisfied with the resort menu as it had very little to no inclusion of local menu or culturally themed menu or that the resort failed to include culturally themed meals.

> We were expecting more culturally themed food but got disappointed.

> Themes each day were Italian, Indian, Middle Eastern etc.. why serve spaghetti Bolognese, student food, pizza and corn fritters when Fijian food could be served? (Male, 65+, USA – Interview)

The emerging attribute in this category is 'cultural food'. This new attribute refers to the guests' quest for the inclusion of cultural food or local cuisine in the resort menu. For example, *lovo* night is normally included in the package for guests. *Lovo* is a traditional way to cook food using earth oven, whereby, food is cooked/baked in a dugout pit heated up by very hot stones. Second, most guests were under the impression that since this is an ecolodge, the resort will incorporate local ingredients or traditional dishes on the menu. For this same reason, guests were also quite satisfied when the resort used ingredients from the herbal gardens or the inclusion of the traditional dishes on the menu.

Location

Under the *Location* category, another new attribute 'remoteness' was identified. This category refers to how remote the location of the resort is. It provided a sense of being cut off, or off-the beaten track for guests. Most guests were extremely satisfied with this attribute and they had expected this of the resort. Second, the majority of guests described in detail how they traveled to this remote location and the adventure it entails.

> Plenty of privacy for those who are escaping the 'rat race'. (Female, 55–64 years, UK – Focus Group)

> Resort is so remote did not have access to Wi-Fi or phone. (Male, 25–34 years, NZ – Tripadvisor)

The next step in organizing these categories of attributes was to determine their order of importance according to their respective contributions to Matava Resort guests' satisfaction.

Satisfaction attributes and the tetraclasse model

As outlines above, the satisfaction attributes identified are classified as follows: ecolodge settings, food, location, nature, room, service and value for money. After coding the textual data from Tripadvisor, interviews and focus groups (identifying and categorizing all the attributes under the seven categories), all the coded attributes were tabled according

to the number of times the themes (all attributes under the seven categories) perceived positively and negatively (Table 5). These were mapped into the tetraclasse model along their levels of satisfaction (strong versus weak) and the perceived performance (negative–positive). The results of the data coding in this context were mapped onto the Tetraclasse model to illustrate seven categories of attributes' contribution to satisfaction, while at the same time classifying these attributes according to the four elements of the Tetraclasse model. The tetraclasse model is used to determine the classification of the satisfaction attributes (see Figure 3). This enables the readers to visualize the contribution of satisfaction and the classification of each of the seven satisfaction attribute categories. The discussion below starts with those categories that highly contribute to guest satisfaction.

First, the *Nature* category of attributes, which includes nature-based attractions and nature-based activities offered by the resort, recorded the most positive and most negative comments. This basically means that while guest satisfaction is strongly influenced by nature, this category also has a high contribution to guest satisfaction. Ecotourists are attracted to nature-based attractions and eager to participate in nature-based activities. Specific comments relate to diving as the most important attribute. Apart from the view and marine life attributes which also fall under *nature* category, under nature-based attractions, other nature-based activities such as snorkeling, fishing and hiking are major contributors to guest satisfaction. This further provides evidence that ecotourists satisfaction is influenced by this category and negative responses also contributed to ecotourists' dissatisfaction. Thus, the nature category falls under the 'key elements' of the tetraclasse model which is depicted in Figure 3. As previously discussed, attributes under this category strongly influence the overall satisfaction degree, whatever their evaluation is, that is, whether positive or negative.

Second, while *service* has a strong contribution to the overall satisfaction, it also has a strong contribution to dissatisfaction. This attribute is mapped under the 'key elements' in Figure 3. Whilst guests were happy with customer service and the engagement of staff, comments about dissatisfaction concerned the service at the Dive Centre, specifically with expertise and professionalism of staff at the Dive Centre of the resort. As a majority of the guests were divers, this is one of the core service functions of the resort and needs to be addressed. As a 'key element' of guest satisfaction, attributes under this category contribute strongly to the status of guest satisfaction, regardless of what the evaluation is.

Moreover, attributes under the *food* category fall under the 'basic elements' category of the tetraclasse model. This ecolodge element when negatively evaluated by guests strongly

Table 5. Positive and negative perceptions of satisfaction attributes.

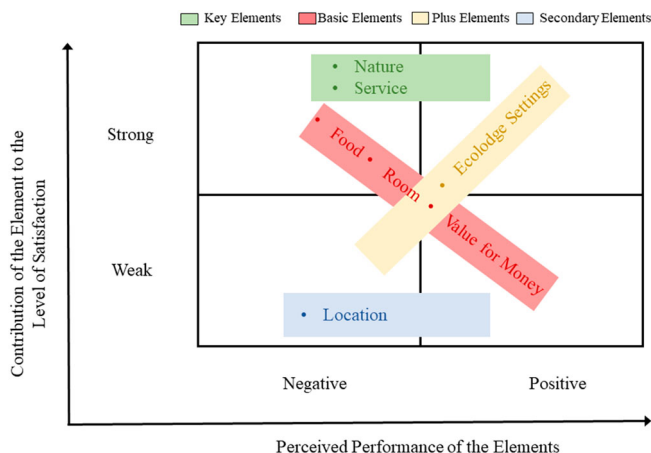| Categories of satisfaction attributes	Total number of responses	Total positive responses	Total negative responses
Nature	234	205	29
Ecolodge settings	161	145	16
Service	125	109	16
Food	112	80	32
Room	74	60	14
Location	63	61	2
Value for money	9	4	5
Total number of reviews	778	664	114

Source: author fieldwork.

Figure 3. The tetraclasse model: classification of satisfaction attributes.

contributes to guest dissatisfaction. If evaluated in a positive manner, *food* only contributes slightly to satisfaction. This is because food is a basic accommodation attributes so guests expect quality food to be available and if it does not meet guests' satisfaction, it contributes to dissatisfaction. One of the reasons for the high level of dissatisfaction of this attribute is that meals are included with the accommodation package, and there is no other place on the island where guests can acquire food. So whatever food is served to guests, they have no choice but to have it. Second, the majority of guests participate in strenuous activities every day and expect hearty meals, and if their expectations are not met, this will result in dissatisfaction. This attribute category was mapped under the 'basic element' in Figure 3.

Fourth, the recognition of strong performance of *ecolodge settings* strongly contributes to guest satisfaction, while the absence of the provision of ecolodge settings only slightly contributes to dissatisfaction. The ecolodge settings fall under the 'plus elements' of the tetraclasse model. Plus elements are accommodation attributes that, when evaluated positively, strongly contribute to the level of guest satisfaction. On the other hand, they only contribute slightly to dissatisfaction when evaluated in an unfavorable way or if these attributes are absent. These are attributes of accommodation that guests do not expect but may appear during a guest's stay. Under the ecolodge category, the 'ambience' attribute and the 'culture' attribute are frequently mentioned attributes under this category, as is 'knowledge of eco-practices' and 'engagement of local people'. For all the eco-practices of the resort, guests find the ambience and cultural attributes to be the most important and these contribute the most to guest satisfaction. Guests were mainly dissatisfied with the general lack of cultural inclusion at the resort.

Furthermore, the *room* category attributes fall under the 'basic element' of the tetraclasse model. This is presented in Figure 3. The attributes in this category are 'room layout and decor' attributes, 'bathroom attribute', 'bugs and insects' attribute and 'room amenities' attribute. The majority of the unfavorable responses were directed toward the 'bathroom' attributes and 'room amenities'. This is because a lot of guests complained of too much hot water and not enough cold water in the rooms, which is related to water pressure as the bures are situated on a hillside. Surprisingly, only very few responses relate

to 'bugs and insects'. Like the *food* category, the *room* category is a 'basic element' which needs to exceed guest satisfaction. Failure to do so will contribute strongly to guest dissatisfaction.

Sixth, attributes of *value for money* category do not have much influence on guest satisfaction, and guests rarely commented on this category of attributes. This is because guests are well aware of all the associated costs before booking and they purchase package deals and clearly know the resort offerings that they will experience. Although there were not many people who commented on this category as they already have certain expectations of the resort offerings, should the resort fall short on these expectations, dissatisfaction will result. Accordingly, this category falls within the basic element.

Finally, the *location* category is made of attributes such as transportation, remoteness and accessibility. Most participants did not mention this category at all. This can be explained that the majority of guests of Matava resort have done their background check of the location and are aware of how remote the destination is, transportation involved in getting to and from the island and accessibility of the resort. Therefore, this category falls under the 'secondary elements' of the tetraclasse model. This element of ecolodge does not have a significant role or influence on the overall satisfaction of guests whatever the evaluation is.

Discussion and conclusions

Over the past decade, ecotourism and alternative tourism have received increasing attention in Fiji. This is demonstrated by the increase in the number of ecolodges in Fiji. The study applied Lu and Stepchenkova's (2012) seven ecolodge satisfaction attributes to relevant satisfaction attributes from the Matava Ecoresort case study. These satisfaction attributes were then mapped onto the tetraclasse model to determine the classification of satisfaction attributes according to their contribution to guest satisfaction and ultimately their importance to ecolodges.

Lu and Stepchenkova's seven categories of ecolodge satisfaction attributes; ecolodge settings, food, location, nature, room, service and value for money are used as a guide to identifying the major attributes that contribute to guest satisfaction and dissatisfaction. Apart from these seven satisfaction categories, there were emerging attributes that were distinctive to Matava Resort and Fiji. These relate to local culture, local cuisine, local people engagement and remoteness.

The study then evaluated favorable and unfavorable results of guests' responses and mapped these to the tetraclasse model to determine the classification of attributes and their contribution to satisfaction within the four elements (Figure 3).

As discussed in the results section, the *room* category is a basic element. Even though this category has very little effect on satisfaction, it strongly contributes to dissatisfaction and overall negative experience for guests when evaluated negatively. The *nature* category and the customer services satisfaction attributes for Matava resort are key elements of the model, due to the high contribution to satisfaction, whether or not these two categories are evaluated negatively. Therefore, practitioners should ensure that the major nature-based activities and equipment in this category are up to par and that staff are trained in maintaining excellent customer services at all times. As key elements, failure to meet and exceed guests' expectations in these two categories will adversely affect guest satisfaction. The

attributes within the *nature* category and *services* category are what practitioners should direct attention and resources to. The *ecolodge settings* category are the plus elements as results show that while the presence of attributes in this category increases guest satisfaction, the absence of this category only slightly contributes to dissatisfaction.

On the other hand, the *food*, *room* and *value for money* categories are basic elements due to their strong contribution to guest dissatisfaction when evaluated negatively and only slightly contribute to satisfaction when evaluated positively. The *location* category is a secondary element of the model due to its low contribution to guest satisfaction.

Implications

Unlike general material products, hospitality products and experiences are an amalgam of products and services. Therefore, customer satisfaction of hospitality products, or in this case, ecolodge experiences are made of guest satisfaction or dissatisfaction of the individual attributes or all of the service attributes that make up the experience during the guests' stay. There have been many classifications of service attributes or customer satisfaction attributes over the years. Lovelock (1985) divides customer services or satisfaction attributes into two categories, core and secondary. Core services refer to the main product or service provided a service provider, e.g. airline core product would be to transport people and their luggage, secondary service attributes to satisfaction would be the check-in and check-out services, etc. Davis and Stone (1985) divide service attributes that contribute to satisfaction into two groups, direct and indirect attributes. Lewis (1987) further simplified the classification of attributes into essential and subsidiary attributes. The essential attributes are very similar to Lovelock's core and secondary attributes and Davis and Stones' direct and indirect satisfaction attributes. On the other hand, Lewis's subsidiary attributes are more similar to this study in that it takes into account behavioral and environmental factors like accessibility, location, interactions with other guests and staff.

This paper developed a classification of ecolodge attributes according to their importance or contribution to guest satisfaction. The study applied the tetraclasse model in order to gauge service attributes and their contribution to satisfaction. The findings highlighted the priority areas of service attributes and further classified elements or categories of attributes into four groups of priority areas. This guest satisfaction framework can be applied to other hospitality products and services.

This study provides an insight into Fiji's ecotourism market and is also relevant to Fiji's ecotourism stakeholders. Given that seven out of the top 10 'Things to Do in Fiji' are all eco-related (TripAdvisor, 2016), this study will assist stakeholders in aligning their business strategies to capture a larger market share. Furthermore, this study enables business owners or ecolodges to focus on areas that need improvement and capitalize on areas that ecotourists are satisfied with. It highlights business owners areas that tourists are dissatisfied with. But more specifically, these results help hotel managers who engage in ecotourism to understand how eco-initiatives and programs influence satisfaction.

The theoretical implication of this study is the contribution to the extant knowledge of the interrelationships of satisfaction models and ecotourism (specifically, ecolodges) in an island nation and in the context of the Pacific region. The present study provides an extension of the existing model on ecolodge satisfaction attributes coined by Lu and

Stepchenkova (2012). We highlight the importance of integrating cultural elements into models of tourist satisfaction. This is particularly relevant for ecotourism destinations in the Pacific where local and indigenous culture is perceived as an important part of the visitor experience.

Moreover, there has been little research using the tetraclasse model to measure and classify customer satisfaction (Camelis & Maunier, 2014; Petrova, Clerfeuille, Vakrilova, Mitkov, & Poubanne, 2009). With the exception of Robinot and Giannelloni's (2010) research on guest satisfaction, there has been very little application of the tetraclasse model in tourism research.

Study limitation and future research

As a single case study, the choice of destination represents a limitation of this research. The study cannot make a comparative analysis with similar destinations. It does not take into account hotel settings, such as whether the accommodation is in a modern or traditional setting, by the seaside or countryside or in an urban versus rural setting. Going forward, it would be advisable to replicate this study using several groups of similar destinations, in order to test the validity and stability of the four different elements for different types of destinations.

When dealing with guest satisfaction, there needs to be a more in-depth analysis of the strengths and weaknesses of each destination. The negative reviews in this study might not be enough to uncover all the negative issues felt by dissatisfied tourists regarding their experiences in ecolodges. Although a small negative review is good for practitioners, to encourage practitioners to undertake continuous improvement, limited feedback may hinder the validity researchers need to make robust recommendations based on larger samples.

Using online reviews from TripAdvisor as a data source, the study has little control over what information is collected. For example, most reviewers do not provide complete user profiles. Another drawback of using online reviews is the verification of the authenticity of each review. The researcher cannot validate that the reviews are authentic.

Other studies (Kozak, 2002; Albayrak & Caber, 2015) have also sought to determine priority areas or hotel attributes according to their influence. Albayrak and Caber (2015) compared the efficiency of two types of analyses to determine priority hotel attributes: the importance-performance analysis and asymmetric impact-performance analysis to predict the prior hotel attributes of improvement for achieving higher customer satisfaction and later offer managerial implications. Future research could use these two analytical approaches from this research and compare it with the results of the tetraclasse model.

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