Guest service experience in ecocentric hotels: a content analysis

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Abstract

Purpose – Sustainable tourism is becoming more popular all over the world. Eco-friendly (green) hotels are properties that are friendly to the environment and are becoming increasingly popular among green travellers. Electronic word-of-mouth is a technique of communicating with consumers in order to share their experiences, and it is a significant marketing tool for hotels. This paper aims to identify the main themes shared in online reviews by tourists visiting eco-friendly hotels, and which of these themes were associated with satisfaction and dissatisfaction ratings.

Design/methodology/approach – The research used qualitative content analyses to analyse 1,202 user-generated content of the top 10 hotels in UK shared by guests on an online platform.

Findings – The analyses revealed nine themes in descriptions of airline travel experiences. These are “hotel amenities”, “services”, “location”, “staff”, “eco” (eco-friendly activities), “value” and “recommend/revisit” (intentions). Negative comments are associated with the “bathroom”, “mattress”, “water”, “bed”, “price”, “shower”, “Wi-Fi” and “restaurant” concepts.

Originality/value – This study differs from previous research in which it aims to address a void in the literature on the shortcomings of research focused on finding the dominant themes expressed in online reviews by tourists visiting eco-friendly hotels, and it does so using data mining approach.

Keywords Green service practices, Customer satisfaction, Word of mouth, Green hotels, Perceived service quality

Paper type Research paper

1. Introduction

In today’s highly competitive service environment, understanding true perceptions and meeting the expectations of customers is critical (Malik, Akhtar, Raziq, & Ahmad, 2020; Preko, Gyepi-Garbrah, Arkorful, Akolaa, & Quansah, 2020), especially in the time of pandemic (Saydam, Arici, & Olorunsola, 2022a). The new coronavirus (COVID-19) has

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resulted in a heightened concern for service safety and a reorganization of service operations for improved segregation and decreased interaction (Jafari, Ozdur, & Saydam, 2021). Similarly, COVID-19 is a disruptive impact on the hotel sector (Jafari, Saydam, Erkan, & Olorunsola, 2020; Karatepe, Saydam, & Okumus, 2021), resulting in considerable adjustments to the offers and operations to meet a new set of standards. This indicates that hotels have been redesigned after the first verified occurrence of COVID-19 was identified in December 2019 (Rezapouraghdam & Karatepe, 2020).

The outcomes of service quality are key since it results in customer satisfaction, positive word of mouth, loyalty and also positive business outcomes like high profit, market share value and image (Chandra, Hafni, Chandra, Purwati, & Chandra, 2019; De Ona, 2020; Fang, Lu, & Dong, 2021). Over the past years, studies have revealed growing concern, by investigating how consumers perceive service quality as well as how organizations can develop strategies to provide quality service as anticipated by the consumers (Brochado, Rita, Oliveira, & Oliveira, 2019; Lian, 2017). However, enhancing the quality of services offered and achieving tourists' satisfaction is particularly challenging in labour-intensive industries such as the hotel industry (Ali, Dey, & Filieri, 2015). Besides, measuring service quality is very complex because of the uniqueness embodied in the service-oriented product itself (Lee et al., 2019). In reality, service is hardly reproduced constantly as well as precisely, due to the variability of service from time to time and from one consumer to another (Chen, Chen, & Su, 2018). Several researchers reported that service quality plays a prodigious role in customer satisfaction as well as positive word of mouth which is important for organizations in gaining competitive advantages (Chang, Huang, Wang, & Lee, 2021) and sustaining customer patronage (Prentice, Wang, & Loureiro, 2019).

In the advent of the serious negative impact of industrial activities on the environment, several organizations have employed different environment-sustaining strategies including the hotel sector (Buffa, Franch, & Rizio, 2018; Horng, Liu, Chou, Tsai, & Chung, 2017; Nilashi et al., 2019). The hotel sector globally has seen a growing surge in the adoption of environmental practices (Karatepe, Rezapouraghdam, & Hassannia, 2020). Mainly because it first addresses the environmental degradation issues, and also it is deployed as a differentiation strategy, positive image improvement strategy and corporate social responsibility strategy among many other benefits (Han, Yu, & Hyun, 2020; Yarimoglu & Gunay, 2020).

This green approach creates a new way of doing business, which comes with its challenges. In light of these realities, how then should the organization position itself to offer better service? What determines service quality in green hotels? What are eco-guest saying? And what are they looking for? We posit that for all stakeholders to be able to deliver a high level of service quality, they have to know what eco-guest are looking for to maximize guest satisfaction. Although different service quality scales have been employed to measure service quality as highlighted in several extant literature such as Parasuraman, Zeithaml, and Berry’s (1988) SERVQUAL and Knutson, Stevens, Wullaert, Patton, and Yokoyama’s (1990) LODGSERV, only very few research have attempted to relate it in the context of eco-friendly hotels such as Lee and Cheng’s (2018) GLSERV. Notwithstanding, there are still mixed findings and a lack of consensuses on which service attributes establish service quality, especially regarding the green hotels.

This study attempts to gain insight from customers’ experiences in eco-hotels on key service attributes that influence their satisfaction level in green hotels. Identifying these attributes are vital because they are the precursor to customer satisfaction, brand loyalty, customer revisit intention and positive word of mouth (Malik et al., 2020; Rather & Camilleri, 2019). Furthermore, Arasli, Saydam, and Kilic (2020) and Arasli, Saydam, Gunay, and Jafari (2021) have solicited the examination of experience-based user-generated content (UGC) to determine service quality. The aforementioned authors posit that this methodology allows researchers to get a comprehensive response (with an emotional disposition towards service) and experience-based data. Many studies have examined the green practices of hospitality firms using customer
surveys (e.g. Yi, Li, & Jai, 2018), and some research has tested these environmental implications by analysing hotel websites or reports (e.g. Okumus, Kuyucak Sengur, Koseoglu, & Sengur, 2020), and a few studies have used social media and UGC – namely, reviews about green hotels (e.g. Arici, Cakmakoglu Anci, & Altinay, 2022). However, scholarly understanding of perceived green service quality and green satisfaction, which are believed to be important criteria for obtaining better service quality, is still in its infancy. Recent research done by Kamboj, Matharu, Lim, Ali, and Kumar (2022) and a systematic literature review conducted by Acampora, Lucchetti, Merli, and Ali (2022) on green hotels revealed that, despite the promise of green hotels in the marketplace, little is known about consumers’ perceptions and reactions towards adopting (or booking and staying at) green hotels. Akin to aforesaid gaps, Yadegarieh-kordi et al. (2021) and Arici et al. (2022) called studies to analyse the UGC of gusts targeting eco-friendly hotels. To our knowledge, however, only a few research have used content analysis of UGC to evaluate customer perceptions and satisfaction with green service quality. As a result, the primary goal of this research is to fill the gap by UGC to gain a macro perspective on customers’ opinions of green service quality and satisfaction. In demarcating such points, this study has the following objectives: (1) to identify the dominant themes that portray overall impressions of green hotel tourists’ experiences posted online; and (2) to pinpoint the themes thoroughly associated with satisfaction and dissatisfaction ratings.

This research has the potential to make important contributions to the literature by following these goals. To begin with, the preponderance of customer satisfaction and service quality studies have sample sizes that are too small. Furthermore, there is a scarcity of consumer green satisfaction and service quality perception research that takes territorial disparities into account. In our study, we attempted to fill this research lacuna by analysing a large dataset using Leximancer and identifying the most prevalent themes depicting green hotel visitor experiences using a sample of the best green hotels in the UK. Second, being one of the first studies, ours adds to the body of knowledge by presenting both verified and unconfirmed green-specific themes/concepts that affect customer satisfaction and dissatisfaction.

2. Literature review

2.1 Eco-hotels and green service attribute

According to Çop et al. (2021), the tourism sector was proposed that the hotel sector poses the greatest threat to the environment. Graci and Kuehnel (2011) suggested that deploying sustainability strategies via adopting green practices in hotels will help mitigate negative environmental. In response to this urgent need for sustainable development and climate safety consciousness, a lot of hotels around the world are infusing diverse green service practices into their operations which range from imbibing recycling practices to buying products locally and also imbibing the standards of green policymakers. A few studies have conceptualized precise characteristics that establish green services in different sectors. Multiple features instituting green services for a product-oriented establishment were recommended by Chan, Wong, Lai, Lun, Ng, and Ngai (2016). The research identifies characteristics such as customer environmental awareness schemes, sustainable policy structures, environmental-friendly packs, recycling systems, reuse systems, energy-conservation systems, water-conservation systems and so on. In the hospitality practical context, Karatepe et al. (2020) gave an example of current green attributes in the hospitality industry, Hilton, which developed an adapting and evolutionary system to attain sustainability via drawing patterns and identifying areas with the highest level of effect on the ecosystem.

Annually, the Hilton hotel group recycles approximately 14,000 pounds of their kitchen oil and reduces food wastage by about 150 tons. The adoption of this kind of system has enabled hotels to get up to 25% savings regarding energy usage in an average hotel (Yu, Li, & Jai,
Millar and Baloglu (2011) cogitate characteristics of lodge service that facilitate a heightened predilection for eco-lodge, like eco-amenities, recycling program, lighting system, towel and linen policy and green certification. Conversely, the study adopted conjoint exploration to observe preferences thereby limiting the scope of the attributes. In addition to the body of knowledge as regards, green service attributes. Pakdil and Kurtulmuşoğlu (2017) advanced our knowledge of service quality attributes of green hotels in the context of green service practice via the introduction of the ECOSERV scale, which is used for evaluating service quality in the ecotourism sector. The ECOSERV scale encompasses 29 dimensions designed from six concepts. The conceptualization of the scale reveals an extra dimension “ecotangibles” which account for the environmentally proactive dimension of services experience in the tourism sector. Lu and Stepchenkova (2012) in their studies reveal attribute 26 with respect to service quality ecologodes with concepts such as “amenities”, “convenience”, “price”, customer service and eco-friendliness.

The green attribute “eco-friendliness” is recognized to be crucial, signifying it can positively influence customer’s perception and also negatively. The aforestated studies have not been able to crystalize service attributes that lead to consumer satisfaction. Lee and Cheng (2018) identified 25 items providing a new insight for measuring the service quality of green eco-friendly lodges. The study has been criticized for its lack of balance laying a lot of emphasis on staff. A balanced model, with an equivalent focus on all parts of an eco-lodge service practice from the customer’s perspective, is urgently required. Largely, previous research reveals that hotels possess attributes in “social servicescape” which entails intangibles that usually emanate from customer-employee interaction and “physical servicescape” tangibles such as building, land-scape and amenities, which are major drivers for service quality (Durna, Dedeoglu, & Balikçioğlu, 2015). Although the focal attributes of hospitality services include the provision of rooms, food and so on, previous research further exposes the functional performance of adopting green service practices, which may result in consumers’ satisfaction (Kang, Stein, Heo, & Lee, 2012). Essentially proper evaluative process is required to concretize green service quality practices that instigate customers’ satisfaction. Considering the lack of consensus on the service attribute that measures service quality. This study attempts to fill this gap by answering this research question. R1: What are the key service attributes in green hotels?

### 2.2 Green hotels and tourist satisfaction

The association considering service attributes and customer satisfaction in the hotel domain have been broadly discussed by scholars (Malik et al., 2020; Prentice et al., 2019). But, more consideration should be paid to explore the association between environmentally-friendly hotel features and guest satisfaction (Merli, Preziosi, Acampora, & Ali, 2019). Customer satisfaction is acknowledging a vital component to endure competitive business (Brochado et al., 2019). It is also an important pointer in assessing organizations’ performances (Izadi, Jahani, Rafie, Masoud, & Vali, 2017) and financial success (Yee, Yeung, & Cheng, 2010). Additionally, it might be distinct as a cognitive process that associates customer experience and its primary reference base (Xu & Gursoy, 2015), resulting in a feeling of pleasure or disappointment from comparing a product’s perceived performance in relation to expectation (Crónin, Brady, & Hult, 2000). This consideration is crucial in evaluating the role of green practices on guest satisfaction. As stated earlier, travelers are more than ever expecting the application of environmentally-friendly action in hotel management (Akbari, Mehrali, SeyedAmiri, Rezaei, & Pourjam, 2019; García-Madariaga & Rodríguez-Rivera, 2017; González-Rodríguez, Díaz-Fernández, & Font, 2020; Yarimoglu & Gunay, 2020). In addition, Yarimoglu and Gunay (2020) analysed the impacts of the extended theory of planned behaviour constructs (attitudes towards green hotels, subjective norms, perceived control,
environmentally friendly activities and overall image) on visit intentions and also to predict the effects of visit intentions on willingness to pay, satisfaction and loyalty. Merli et al. (2019) reported on how tourists perceive “green hotel” practices and to test the relationship between guest perceptions of hotel green practices and behavioural intentions. Cited authors found the impact of green practices in determining a specific loyalty towards green hotels. In addition, the authors found the role of guest satisfaction as a mediator. The importance of the association between green practices and satisfaction has been analysed and shown by scholars in the context of the tourism domain (Merli et al., 2019; Yu et al., 2017; Assaker, O’Connor, & El-Haddad, 2020). Despite the predictive nature of green service attributes in inducing satisfaction. A major gap still lies within the literature in that extant literature have failed to identify attributes that influence the satisfaction level (satisfier) of the customers the most and attributes that reduce the satisfaction level (dissatisfier) of customers in the scope of green hotels. Herzberg’s motivation-hygiene theory identified “satisfiers” and “dissatisfiers” as two concepts that can work independently (Herzberg, 1966). Satisfaction will be increased by the presence of a satisfier. Although the presence of “satisfiers” will not necessarily guarantee satisfaction, the absence will lead to dissatisfaction. The identification of the overall customer’s perception of service experience in research pointing out satisfiers and dissatisfiers will enable hoteliers to plan effectively and shape customers’ experience to positively elevate the customer’s satisfaction level. This study attempts to identify “satisfiers” and “dissatisfiers” by answering this research question. R2: What are the key services satisfier and dissatisfier in green Hotels?

2.3 Green experiential quality
Experiential quality involves not only the service provider but also the receiver (Crompton & Love, 1995). Chen and Chen (2010) refer to experiential quality as the psychological outcome resulting from customer involvement in tourism activities. This study suggests a novel concept of green experiential quality and explains the term as a subjective evaluation of a customer’s experiences with eco-friendly products or services while staying in a green hotel. Green experiential quality is used to measure the extent to which green hotel management sees the specific needs of the customers in delivering environmentally friendly products or services, as perceived by customers. Therefore, green experiential quality is a subjective measure of green hotel customers’ reasoning of the overall value of the product or service provided and thus does not replace, but strengthens, end-to-end green experiential quality by giving the quantitative link to the customer perception (Bill Xu & Chan, 2010). Chen and Chen (2010) and Wu and Li (2017) find that experiential quality has a good influence on experiential gratification. Many studies have focused on the components of experiential quality. Cole and Chancellor (2009) suggest that programs, amenities and entertainment are components of experiential quality. Lemke, Clark and Wilson (2011) show that product category, involvement, product complexity and relationality are parts of experiential quality. De Rojas and Camarero (2008) showed that experiential quality encompasses interaction quality, physical environment quality, outcome quality, access quality and administration quality.

In addition to aforesaid information, a recent study conducted by Kamboj et al. (2022) attempt to shed light on consumer engagement towards green hotels. The acquired information from hotel visitors in India is analysed. This research reveals four significant findings: (1) utilitarian value is the most significant predictor of value, followed by biospheric and hedonic values; (2) consumer innovativeness is a stronger innovation predictor than innovation characteristics; (3) consumers with high green involvement are more likely to adopt green hotels than those with low green involvement; and (4) consumer adoption intention is a significant predictor of consumer adoption behaviour. Liu and Hu (2021) research was conducted to fill research gaps by identifying crucial success criteria in the
context of green hotel investment in Taiwan. The results indicate that “financial investment advantages” is regarded as the most important success element for green hotel investments. Pekovic’s (2021) study examined the association between green pull motives and overall visitor satisfaction in an effort to close a research gap. The results indicate that green pull motivations are negatively connected with overall tourist satisfaction at the macro level. On the other hand, green pull motives at the micro level are significantly associated with overall tourist satisfaction.

3. Methodology

The research sampled 10 hotels from TripAdvisor for this study (Table 1). The 10 samples are in the category of the "Platinum" badge of the TripAdvisor GreenLeaders scheme which signifies the highest eco-friendly practitioner on the platform and is the most mainstream green lodging, as indicated by the “TripAdvisor Popularity Index” (TripAdvisor, 2013). According to TripAdvisor (2013), platinum badge lodge possesses the most elevated level of interest in eco-friendly activities. The lodges under this category must achieve the requisite requirement of the TripAdvisor GreenLeaders scheme, more also they must accomplish a 60% grade or more on the GreenLeader Survey. The 10 hotels have executed a variety of green practices ranging from fundamental essentials such as “linen and towel re-use” to implementing advanced practices such as the installation of “solar panel” and so on. The choice of the 10 green hotels guarantees that the research accessed adequate and rich data on visitor experience and observation of quality service (Table 2).

Convenience sampling was utilized to confirm the number of online reviews required to use Leximancer and to match the sample size of previous research (Saydam, Olorunsola, Avci, Dambo, & Beyar, 2022b; Brochado et al., 2019). While selecting online reviews, we used English reviews as well as longer reviews were collected. This method also was followed in

<table>
<thead>
<tr>
<th>Name</th>
<th>Hotel class</th>
<th>Total number of comment</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hotel A</td>
<td>4</td>
<td>1,131</td>
</tr>
<tr>
<td>2</td>
<td>Hotel B</td>
<td>4</td>
<td>1,907</td>
</tr>
<tr>
<td>3</td>
<td>Hotel C</td>
<td>3</td>
<td>1,440</td>
</tr>
<tr>
<td>4</td>
<td>Hotel D</td>
<td>4</td>
<td>476</td>
</tr>
<tr>
<td>5</td>
<td>Hotel E</td>
<td>4</td>
<td>507</td>
</tr>
<tr>
<td>6</td>
<td>Hotel F</td>
<td>3.5</td>
<td>486</td>
</tr>
<tr>
<td>7</td>
<td>Hotel G</td>
<td>2</td>
<td>1,588</td>
</tr>
<tr>
<td>8</td>
<td>Hotel H</td>
<td>5</td>
<td>663</td>
</tr>
<tr>
<td>9</td>
<td>Hotel I</td>
<td>4</td>
<td>1,972</td>
</tr>
<tr>
<td>10</td>
<td>Hotel J</td>
<td>3</td>
<td>1,860</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>3.6</td>
<td>12,030</td>
</tr>
</tbody>
</table>

Table 1. Green hotels

<table>
<thead>
<tr>
<th>Rating</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>46.7</td>
</tr>
<tr>
<td>Very good</td>
<td>34.2</td>
</tr>
<tr>
<td>Average</td>
<td>8.6</td>
</tr>
<tr>
<td>Poor</td>
<td>7.9</td>
</tr>
<tr>
<td>Terrible</td>
<td>2.6</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 2. Descriptive rating of the comments
studies that utilized content analysis (Arasli et al., 2021; Cassar, Caruana, & Konietzny, 2020). A total of 1,202 online reviews were collected.

3.1 Data treatment
Content analysis has increased awareness as a viable technique to translate the rapidly growing web communication platforms. According to Zhang and Cole (2016), both quantitative and qualitative examinations can be used to process literary information. Content review can be analyzed with “structured quantitative or unstructured qualitative strategies.” According to Krippendorff (2012), this includes separately, verifying words or phrases and estimating the discernible qualities of the content or understanding what is composed and making a generalization on the latent implications of the information. The researcher used Leximancer 4.5 for the content analysis of UGC (Sulu, Arasli, & Saydam, 2021; Arici et al., 2022). This software transforms the literary information of the characteristic language into semantic patterns (Wu, Wall, & Pearce, 2014).

3.2 Data analysis
The data collected was processed through excel and converted to CSV file format, then uploaded into the software. The software package detects the utmost repeatedly used words. Then the program identifies word patterns and word clusters consistent in the review transcripts (classifying them as concepts). Finally, Leximancer determines the frequency of co-occurrences and interconnectivity between concepts, which the program displays graphically as output. Concepts are grouped into a bigger set and classified as themes (Biroscak, Scott, Lindenberger, & Bryant, 2017). The themes are represented in a color-coded circle containing interconnected concept seeds (Saydam et al., 2022a, b; Saydam, Ozturen, & Kilic, 2022c; Dambo, Ersoy, Auwal, Olorunsola, & Saydam, 2021).

Leximancer also carried out automated quantitative content analyses of textual semantic deriving output such as frequency count and the likelihood of occurrence in reviews to gauge its relevance (Brochado et al., 2019; Arasli, Furunes, Jafari, Saydam, & Degirmencioglu, 2020a; Arasli et al., 2020b). Then followed by the qualitative analysis which is revealed in narration that points out the comment enclosed in the themes presented in the analysis (Wilk, Soutar, & Harrigan, 2019). According to Elo and Kyngas (2008), content analysis is a technique that may be used for either qualitative or quantitative data, and it can also be employed inductively or deductively. The goal of the research determines which of these is employed. If there is insufficient or fragmented prior knowledge regarding the phenomena, the inductive method is advised (Elo & Kyngas, 2008). During inductive content analysis, categories are formed from the data. When the framework of analysis is operationalized based on prior knowledge and the objective of the study is descriptive research, deductive content analysis is employed (Kyngas & Vanhanen, 1999). A technique based on inductive data proceeds from the particular to the general by observing individual cases and then combining them into a bigger whole or generalization (Chinn & Kramer, 1991). Deductive reasoning is predicated on a prior theory or model, and hence, it proceeds from the general to the particular. These methods have comparable preparatory steps (Burns & Grove, 2005). When a researcher seeks to retest existing data in a new context, deductive content analysis is frequently utilized (Catanzaro, 1988). This might also entail evaluating categories, concepts, models or assumptions (Marshall and Rossman, 2014).

The following stage, if a deductive content analysis is chosen, is to create a classification matrix (Figure 1). Depending on the purpose of the study, a structured or unrestricted matrix of analysis may be employed in deductive content analysis (Kyngas & Vanhanen, 1999).

The Leximancer generates a “thesaurus” as well as applies a “machine-learning” procedure to regulate the optimal thesaurus of words from the text data, categorizing these
by themes and generating the results in a “concept map” (Rodrigues et al., 2022). This kind of map assists the researcher in order to gain sign into as well as an understanding of natural language via a “three-part” process (Saydam et al., 2022a, b, c) as depicted in Figure 2.

Leximancer employs a mix of approaches, including Bayesian statistics, that record the incidence of a word and link it to the occurrence of a sequence of other words. It then quantifies these outputs by assigning codes to individual sentences and sets of sentences (Brochado et al., 2019). As mentioned above, only English-language reviews of tourists focusing on green hotel experiences were evaluated. In an Excel file, each review was classified as a separate case. The titles, review contents and total rating of reviewers’ satisfaction were transferred into a spreadsheet. The Excel file is then submitted to the Leximancer program. The simplicity of use of Leximancer may attract the interest of unskilled researchers, who run the risk of oversimplifying the data analysis process and deriving inaccurate conclusions. However, Leximancer is regarded as a more objective analytical tool because of the elimination of researcher bias coder reliability and subjectivity (Isakhan, 2005). A crucial issue when utilizing alternative computer-assisted qualitative data analysis (CAQDAS), such as NVivo and ATLAS, is that the human coding procedure may
introduce researcher bias into the study. Consequently, it might be claimed that, due to researcher interference, the findings from other CAQDAS are problematic until the reliability and validity of coding are demonstrated (Sotiriadou, Brouwers, & Le, 2014). However, Leximancer automatically generates the code that provides the topic’s key themes and the following subsections. Leximancer is unlike other content analysis software programs. In contrast to NVivo and ATLAS, ti Leximancer does not utilize word frequency (Tseng, Wu, Morrison, Zhang, & Chen, 2015). Emerging concepts are based on their frequency of occurrence, with the most prevalent notion emerging as the cluster’s theme (Dambo et al., 2021). As the idea list that the program generates automatically is derived from the text that we input, this solves the issue of validity and dependability (Arici et al., 2022). A higher level of dependability can aid in minimizing researcher bias and maximizing the repeatability of results, but inconsistencies in how coders categorize information might compromise the reliability of coding results (Krippendorff, 2012). Reaching a high degree of dependability in human-coded content analysis is typically hard, particularly when processing large amounts of data, since the researcher’s likelihood of making mistakes increases (Arasli et al., 2021). Leximancer software was utilized to process the data in order to avoid such errors during the process of coding the themes (Saydam et al., 2022b, c). A substantial number of studies have also demonstrated that Leximancer software is trustworthy since it requires less manual interaction from the researcher and delivers objective data analysis by removing researcher prejudice coder subjectivity, hence enhancing the validity of the results (Saydam et al., 2022a; Sulu et al., 2021).

4. Results
The themes generated from the content analysis are: “hotel amenities”, “services”, “location”, “staff”, “eco” (centric activities), “value” and “recommend/revisit” (intentions).

4.1 Amenities theme
The major concepts under hotel amenities are as follows; “room” (frequency count = 2,503; connectivity rate = 100%), “clean” (673; 27%), “comfortable” (613; 24%), “drink” (604; 24%), “bed” (579; 23%), “view” (474; 19%) and “shower” (353; 14%). Connectivity rate in the context of this research refers to the frequency with which internal components within the theme are cited together. It shows the relative significance of topics (the most important is the top theme at 100%) (Wu & Pearce, 2016).

Example of comments regarding the amenities theme includes:

The toiletries in the shower room were all organic and made and purchased locally (use of locally sourced/ home-grown products being a feature of the hotels green and sustainable policies) Room was spotless with a very comfortable bed and plenty of towels, including bath sheets. Another review still reads, ‘The room I thought was badly planned, not enough plugs and you could only watch TV from the bed or bath and the “Eco” lighting system left a lot to be desired, . . . I really did struggle getting enough light to put in my contact lenses the LED lights in the ceiling were just not bright enough, luckily I had a bright torch in my bag. I did enjoy having the bath in the bedroom and being able to watch the news while having a soak.

4.2 Service theme
The occurrence frequency of major concepts under theme service are “food” (frequency count = 2,178; relevance = 87%), “restaurant” service (539; 22%), “service” (534; 21%), “Visit” (309; 12%), “experience” (301; 12%), “best” (294; 12%), “delicious” (224%; relevance = 10%), “local” purchase (209, 8%) and “guest” other guests (208; 8%).

Examples of comments on service concepts by guests:
A guest review that 'The food was fantastic and very filling as I said the service was excellent and the restaurant staff were attentive! A customer I seen had a baby and asked a waitress where the baby change facility was the waitress took the baby’s bag from her and showed her where it was! That is what I call service.

Another guest posted, “The highlights of our visit were undoubtedly the food and drinks, from breakfast through lunch to the 8-course tasting menu, the excellent service and the caliber of all the staff who were so friendly and efficient.”

4.3 Location theme
The items revealed under the theme location include Area, full (capacity), sourced, drinks, facilities, conservatory, lack, garden, reception, complimentary, people and dining. The major concepts reviewed under the theme location is; “Area” (frequency count 893; 36%), “full (capacity)” (frequency count 234; 11%), “sourced” (frequency count 121; 7%), “drinks” (frequency count 89; 3%) and “facilities” (frequency count 33; 1%), Comment that best describe the theme and the guest’s perception include:

The 24 hr coffee/tea accessibility was great, the bed was quite comfortable, and the location was good for exploring the east side, with good access to several Undergrounds. One dissatisfied tourist added, ‘... the location of the light is terrible, it is placed directly over the bed . . .’

4.4 Staff theme
Some concepts under the theme show the relevancy to green hotel as follows; “Staff” (frequency count = 1,418; relevance = 87%), “Friendly” (936; 37%), “Helpful” (437; 17%), “feel” (275; 11%), “efficient” (117; 5%), “Attentive” (114; 5%) and “environmental friendly” (112; 5%).
A typical example of guest perception of the staff:

When we left on Sunday I was almost sad to say goodbye to Katerina. Both her and George had gone over and above what I would have expected. They made my husband and I feel so special.’ Another tourist added, ‘If you are looking to treat yourself or another or both as I did . . . then, The . . . will tick the box. Plus, they have environmental -friendly and guest-friendly staff!

4.5 Eco “centric activities” theme
Some of the concepts under the theme are “eco” (frequency count = 328, relevance = 13%), “beautiful” (261, 10%), “garden” (208; 8%), “natural” (77; 3%) “conservatory” (68; 3%), “(eco)-credential” (60; 2%) and “décor” (60; 2%).

A typical example of the usage of the theme ECO includes:

The eco-friendly style also complements the stunning beach and cliff views of the sea . . . a moss and lichen garden of driftwood and stone with hot tubs and a reed-filled natural pool . . . and then there is the spa . . . calm and stylish, with quiet relaxation areas and treatment rooms. A warm pool and wet sauna to relax after a hard day trekking, walking, or surfing. The room was stylish and functional with small touches including the unique local toiletries.

4.6 Value theme
The statistical result is shows as follows; “Worthy” (frequency count = 166, relevance = 27%), “expensive” (335, 13%) “check-in” (221; 12%), “Value” (184; 7%), “money” (136; 5%) and “disappointing” (129; 5%).

A typical example of the usage of the theme value includes:
I booked this hotel for two nights as I wanted to stay in the same hotel as my colleagues. I was very pleasantly surprised as I didn’t expect such a nice, clean and modern hotel for the price we paid. It is a great value for the money especially given the location.

Overall a terrific stay and good value for the money we paid. We also received a couple of extra’s included in the deal, a gin fizz cocktail, and a small bottle of lakes distillery gin to take home. If you need a couple of days’ rest and relaxation, this is the place to go.

4.7 Revisit/recommend (intension) theme
The concept under this theme includes “Recommend” (frequency count 517; 21%) and “enjoyable” (70; 3%).

A typical example of the usage of the theme Revisit/recommend (intension) includes:

Our room overlooking the carpark was very well appointed and lots of nice finishing touches. I can recommend this hotel to every one of all ages, we will almost certainly return. Thank you for making our brief stay so enjoyable.

A few days spent at . . . is absolutely relaxing due to its peaceful atmosphere and being looked after with such care. Thank you all. I would absolutely recommend a stay.

4.8 What are the key services satisfier and dissatisfier in green hotels?
This research also critically explores customers’ perception of key services’ satisfier and dissatisfier ratings in relation to green hotels. The analysis shows that the guests that rate green hotels highly relate their positive experience towards concepts such as room (61%), food (43%), comfort (41%), friendly (32%), view (30%), clean (25%), service (21%), helpful (17%), environmentally friendly (12%) and “eco” credentials (10%). Satisfier indicators also include concepts such as food, room and a lot of service concepts such as friendly helpful, more also comfortability was also paramount to the guest.

Concepts likelihood to co-occurrence with dissatisfier are bathroom (52%), mattress (38%), water (26%), bed (23%), price (20%), shower (16%), light (11%), guest (10%), Wi-Fi (8%), restaurant (7%) and facilities (for disable) (6%). The concepts related more to the hotel amenities are a bathroom, water, mattress, bed, room, comfort, Wi-Fi, shower, light and clean. The result also shows that 20.6% of guests are willing to revisit the hotel, while 13.1% of the total population are engaged in electronic word of mouth (eWOM) (Table 3).

5. Conclusion and discussion
5.1 Discussion
This study was designed to highlight what drives consumers of eco-hotels in the selection of their service providers and their opinion of the essential indicators of green service quality. To achieve this objective, we gathered and analyse comments from 1,202 guests of 10 eco-centric hotels listed on TripAdvisor. Understanding this will help hotel developers, planners, government, policymakers and hotelier associations like shareholders to understand diverse guests’ perceptions of different satisfaction, needs and expectation in green hotels. Focusing on satisfiers in service offers and zeroing out dissatisfaction triggers

<table>
<thead>
<tr>
<th>Recommendation intention (eWOM)</th>
<th>Frequency</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Revisit intention</td>
<td>248</td>
<td>20.6%</td>
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Table 3. Result for revisit and recommendation intention (eWOM)
will enhance service quality and ensure business excellence. As stated by Malik et al. (2020), satisfied customers are the foremost asset for any business.

Our findings revealed that consumers of eco-lodges are particularly interested in seven-specific themes to be considered satisfied with the green service offerings. Eco-centricity of the hotels, staff’s attitude to eco-friendliness, hotel amenities, location, nature of services, implied value and revisit/recommendation intentions were the identified themes. This result confirmed that green service quality like service quality and general service experience is a multidimensional construct that takes several aspects of service encounter into account to result in the final evaluation of the service experience (Lee & Cheng, 2018; Parasuraman et al., 1988). The methodological approach of this research gave a more balanced view of the dynamism of the service quality in green hotels, in that equal attention should be given to both tangibles and intangibles.

This study analysis identified rooms as the most important concept in green hotels. This finding is contradicting with recent research findings such as Yi et al. (2018) study that identified green practices, like reflective roofing systems, a stormwater management system and guest training as key satisfier, while Yu et al. (2017) investigation revealed “guest training”, “energy”, “water”, “purchasing” and “education and innovation.” These elements of service were reflective in the Eco “centric activities” theme, but the disparity was fostered by the isolative analysis of green-related perception in the aforestated research. This neglect the fact that guest will not evaluate satisfactory indicators in eco-lodge based on green activities alone.

The study carried out by Lee and Cheng (2018) revealed 33 items categorized into 6 dimensions (tangibles, reliability, responsiveness, assurance, empathy and green knowledge). The research methodological approach adopted for the research was rather limiting for in-depth exploration. Considering that, the researchers could not identify the room as one of the critical determinants for guests’ satisfaction. A handful of research has shown that customers consider “room” as one of the indicators and not the most vital one (Knutson et al., 1990; Lu & Stepchenkova, 2012). The comfortability of the room, noise deterrence and position of the light in the room were key insights revealed shown from the comment.

Many researchers identify location as an integral part of customer satisfaction. The location theme agrees with Manaktola and Jauhari (2007) research that makes the location an important consideration in hotel selection. This result proves to be particularly interesting due to its effect on other themes. The results highlight that location for service delivery is highly important in guest perception and it cuts across every aspect of the hotel valve chain. The location of the hotel is as important as the location of where service is provided for customers and the location of tangibles. This possesses the ability to influence the customer’s satisfaction. Particularly for eco-lodge location of material sourcing was key in molding customer’s perception of the organization’s Green ethos compliant. This can affect the satisfaction of highly eco-sensitive customers. Additionally, the location of installation of energy savings light in eco-lodge should be properly managed to accommodate better illumination in locations that require higher light intensity than the other. Otherwise if not properly managed, it could affect the satisfaction level of guests.

The “eco” theme interrelates with four other themes which are location, staff, hotel amenities and services indicating basic operational requirements for the hotels in the research content. This finding also agrees with Robin, Pedroche, and Astorga (2017) results that green practices are perceived as “fundamental” as opposed to “an addition to” by visitors. At the point when green practices are positively seen by hotel visitors, these practices contribute just feebly to the increment in satisfaction; in any case, if these practices are seen ominously by visitors, they bring about solid disappointment. Although the interrelation also further consolidates the fact that it influences every aspect of the hotel. So,
green practice must be executed effectively. Also, the basic green practices, such as linen reuse, recycling and energy conservation upon which these hotels are classified, were not prominent in guest comments. Rather, the green practices that influenced the guest’s perspective were more related to concepts such as garden, eco-oriented decoration/designs/style, conservatory and the ambience of the environment that project natural and friendly. This result shows that as much as guests are interested in environmental sustenance, self-satisfaction, empathy and assurance come first in service quality in green hotels. The futuristic behaviour such as recommendations and revisit intention rate were shown below which may be because of guests wanting to visit other hotels or tourist destinations. Also, this could be a result of a need to improve hotel amenities. The premium price of the hotel could also be a contributing factor.

5.2 Theoretical implications
The distinctiveness of the suggested framework rests in its emphasis on the themes of green satisfaction, which includes the customer’s evaluation of the goods, services and qualities of green hotels. Our results relating green hotel experiences to positive or negative review comments give a thematic map, from the perspective of hotel guests, of the effect of hotel green policies on customer green satisfaction and, therefore, their online remarks.

To the best of our knowledge, hospitality researchers have conducted scant research on consumer satisfaction based on green hotel experiences (Acampora et al., 2022; Arici et al., 2022; Kamboj et al., 2022). The research has yet to study the disparities in consumer perceptions of green satisfaction based on their post-purchase online comments; hence, our findings in this respect reflect a piece of our contribution to the subject. We recommend that more studies be conducted to explore the pathways via which Internet reviews may motivate or contribute to future, additional reviews of green hotels. This might contribute to the literature on the hotel business. Extant literature has established an increasingly positive relationship between good service quality and positive WOM (Liu & Lee, 2016; Kim, Ng, & Kim, 2009) and also revisit intention (Padma & Ahn, 2020; Kim & Kim, 2020). Opposing the extant literature, this research establishes that although good service quality could lead to revisiting intention and positive word of mouth, different contingencies could influence this decision.

The research further advances knowledge theoretically, first by adopting a new methodological approach in investigating the relationship between service practice and futuristic behaviour, and by newly establishing this relationship in the context of the green hotel industry.

A few studies in the existing literature have deployed content analysis studies and have focused on quantifying the data, and there is a lack of studies that have applied the critical incident technique to understand customers’ behaviour. This study encompasses both content analysis (i.e. word frequency analysis) and the critical incident technique to understand customers’ UGC futuristic behaviour. Despite the fact the content analysis helped showcase the major themes related to green hotel service, the critical incident technique identified the particular green service attributes that contributed to guest satisfaction and dissatisfaction which is enshrined in our pull and push framework.

5.3 Managerial implications
In relation to this study, current research results ensure green hotel owners/directors/decision-makers profound vision of how hotel guests perceive green hotel services concerning its quality, as revealed by their reviews on TripAdvisor. Understanding UGC will enable managers of green hotels to determine the important features essential to formulate and design positive post-service behaviours as well as diminish possible negative perceptions of guests or just opposite to increase their revisit intention. Additionally, in this
study, we determine that green hotels have a consensus on the commitments of hotels’ green practices; however, hotels ought to discover the best ideas of service encounter for their green endeavours to diminish guest dissatisfaction.

The outcome of this research adds to the service quality literature by showing different perceptions of guests in green hotels. The main themes of this current research reveal that guests are pleased with eco-service practices as well as eco-certification has a positive and effective characteristic among the green practices overall. On the other hand, although green hotel guests are accommodated in green hotels, there is still an inconsistency between the customers as well as hotels on how green practices ought to be employed and succeeded. It can be seen as well as understood that how green hotel guests pay attention to “hotel amenities” and “service” containing concepts like room, comfortable, clean, bed, shower, bathroom, floor, view, water, towels, style, light, complimentary, drink and where “service” theme contains food, excellent, delicious, dining, restaurant and experience. To achieve high service quality, guest satisfaction and revisit intention, it is obvious from the themes and concepts that green lodging visitors need a room that is comfortable, clean and has excellent dining service. What is more, the location of service delivery in the value chain was found to be essential to the total service quality and business excellence of green hotels.

In the study, the décor/decoration of guestrooms appeared as a concept. Considering the tangibles of the green hotels, it is recommended to the green hotel directors to invest as well as improve hotel decor containing both interior/exterior architect, utensils as well as the equipment utilized to deliver service as well as physical amenities. More disabled people and the thickness of the wall due to the nose should be considered during architectural design. This is consistent with Zeithaml and Bitner (2003), in the tourism sector where guests visit the hotel to receive the services, the tangibles should be overemphasized.

In the current study, the result shows that; “food”, as well as the “restaurant”, appeared in the concept map which shows both concepts are essential for green hotels guests consideration. Therefore, physical atmosphere, service, as well as food quality insights directly contribute to satisfaction (Arasli et al., 2020a, b). Therefore, green hotels’ decision-makers or managers should provide impeccable services as well as increasing distinctive new menu items would make a reliable image of the restaurant and increase its reputation for green hotels.

Moreover, green hotels should convey CSR initiatives to workers (both formally and informally) and actively cultivate an atmosphere in which employees may contribute to the creation, execution and evaluation of CSR activities (Olorunsola, Saydam, Ogunmokun, & Ozturen, 2022). This may assist employees in recognizing more CSR projects and, as a consequence, enhance their environmental participation.

In addition, the management of green hotels should realize the ability of consumers’ green engagement to exert a more substantial influence on the formation of stronger intents and subsequent acceptance of green hotels. In this sense, green hotels may profit by encouraging consumers to engage in green activities as part of their corporate social responsibility outside their main business and the green services they offer in their hotels (Kumar, Sureka, Lim, Kumar Mangla, & Goyal, 2021). Moreover, green hotels can cultivate customer loyalty by keeping their consumers and followers informed about the newest green products on the market and environmental issues that are trending in order to maintain high levels of green involvement, as well as by incorporating green and sustainability messages into their communication strategies (Sahin, Baloglu, & Topcuoglu, 2020).

Last but not least, to meet customer expectations of utilitarian value, green hotels must provide excellent value for the money, better prices than traditional hotels and useful facilities. To satisfy customer expectations for biospheric value, green hotels must protect the environment, avoid pollution, save natural resources (e.g. by building water-saving facilities), decrease waste and function in harmony with the ecosystem’s environment and species (Kamboj et al., 2022).
5.4 Limitations and future studies
This study has a few limitations that should be considered. This research work only considered 1202 UGC from the green hotel with the best green practice “platinum”, so in lieu of that, this outcome should be interpreted carefully, especially when considering hotels with a lower standard of green practice. So future research should cut across all badges of green practice to enable generalization. This research work was carried out in the UK, so this result cannot be generalized because other cultures may have different traditions, perspectives, etc. Future research should consider other geographical locations in their study to be able to compare and contrast. New research in this sphere of research should adopt the qualitative methodology and gain more depth to this finding from the guest’s perspectives. Lastly, the comments analysed were done for a specific period. It is possible that green perceptions change and new comments are included in the future. Future research should consider examining how hotel ratings are affected by perceived green practices, as well as investigate how different hotel sections/departments as these will help in the improvement of marketing strategies for eco-friendly hotel managers.

References


**Further reading**


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