



# Guest dynamics and perceptions towards environmentally-friendly practices in hotels in KwaZulu-Natal, South Africa

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## Abstract

Hotels provide resource intensive services with excessive consumption of non-durable goods such as electricity and water that has a permanent footprint on the environment. This large consumption of natural resources has induced the hotel sector to explore sustainable practices to protect the environment, since their existence is dependent on the environment. Increasingly, the hotel sector has begun to adopt environmentally friendly practices in their daily operations to gain positive public attention and more especially, to fulfill the needs of guests for an environmentally friendly product. Environmental concerns have also brought changes in consumer behavior with more environmental awareness, and preferences for greener or eco-friendly hotels, pressurizing hotels to adopt green principles. Although there have been numerous international studies that have examined individual travelling behavior related to the environment, very few have been undertaken in the African context on hotel environmental practices and guest preferences for green products. The aim of this paper is, therefore, to analyze guest perceptions towards environmental measures at hotels in a developing country context, South Africa. A simple random sample of twenty, star-graded hotels and a convenience sample of 20 guests from each hotel in KwaZulu-Natal, using a structured questionnaire to obtain primary quantitative and qualitative data, was implemented. Some of the main findings were that demographic characteristics of consumers are significant factors in understanding consumer behavior; a higher proportion of females were willing to pay more for environmentally sound hotels and most guests considered price was a key attribute when choosing hotels. Moreover, over half the guests gave preference to hotels that had environmental accreditations, and a large number believed that the current star grading should incorporate green issues and grading determined by environmental actions.

**Keywords:** hotels, environmentally-friendly practices, guest perceptions, environmental management.

## Introduction

Traditionally hotels emerged as an establishment, offering lodging and food and beverage to guests. Today, hotels have grown to include a variety of services such as restaurants, meeting rooms, conference facilities, spa facilities, resorts and a wide range of entertainment. The services provided by hotels to guests are resource intensive (Bohdanowicz & Martinac, 2007; Graci & Dodds, 2008), and consequently the hotel sector is viewed as having the most permanent carbon footprint on the environment (Grosbois, 2012; Tang *et al.*, 2011; Weaver,



2006). The excessive consumption of non-durable goods and energy in the hotel sector accounts for 21% of all CO<sup>2</sup> emissions (Han & Kim, 2010; Penny, 2007). This large consumption of natural resources has prompted the hotel sector to explore sustainable practices (Miao & Wei, 2012; Al-Aomar & Hussain, 2017). Hoteliers are now responsible for protecting the environment since their continued existence is reliant on the environment, and hotels are now pressured to focus attention on environmental issues and policies at every phase of their business venture. Hoteliers recognize the significance of environmental protection and resource conservation and have begun adopting environmentally-friendly practices in their daily operations (Robinot & Giannelloni, 2010; Al-Aomar & Hussain, 2017; Chan, Hsu, & Okumus, 2016). This has helped hotels gain a competitive advantage, augment their overall image, reduce operational costs, gain positive public attention and fulfill the needs of guests for an environmentally-friendly product (Penny, 2007; Manaktola & Jauhari, 2007, Chan *et al.*, 2016).

Concerns about environmental protection have also brought about changes in consumer demand and behavior (Han *et al.*, 2011). Consumers are now becoming more environmentally aware and prefer to purchase green products (Han *et al.*, 2011; Han & Kim, 2010; Manaktola & Jauhari, 2007), and there is growing consumer pressure for hotels to adopt green principles (Rahman *et al.*, 2018). The green tourists are seeking to “purchase eco-friendly products and services, preferring firms that favor environmental practices” (Han *et al.*, 2011:1). Moreover, “as environmental awareness increases, consumers are increasingly searching for eco-friendly hotels over conventional hotels” (Han *et al.*, 2011:346). Travelers are willing to pay a premium for the privilege of staying in a green facility (Bohdanowicz, 2006), and hotels that do not conform to environmentally-friendly practices may be pressurized by consumers to adopt sustainable practices (Masau & Prideaux, 2003).

A number of studies have examined the effect of individuals' traveling behaviors on the environment (Bruns-Smith *et al.*, 2015; Han *et al.*, 2015; Trang *et al.*, 2018, Kim *et al.*, 2017; Han *et al.*, 2011; Miao & Wei, 2012, Han & Kim, 2010). However, a survey of the literature reveals that there are very few studies, undertaken in the African developing countries, on hotel environmental practices and guests' preferences in relation to environmentally-friendly products. This is despite the fact that many key tourism destinations are located in these, value for money, destinations with tourism products being nature-based. Guest experiences and perceptions in these contexts towards environmental issues are also a neglected area of research. In light of the above, the aim of this paper is to analyze guest perceptions towards environmental measures at hotels in a developing country context, South Africa, to add to the tourism literature.

## Literature review

### ***Environmental management and tourism***

Globally, the environment has become under threat because of an increasing world population, industrialization and widespread pollution, which requires an urgent need for sound environmental management (Saarinen, 2006). The term “environmental management” is entrenched in environmental law, and is considered a “management strategy that is ultimately aimed at shaping or changing the behavior of people in their environment” to regulate the “effects of peoples' activities, products and services on the environment” (Nel & Kotze, 2009:1). The growth of environmental management in the service industry, particularly the tourism sector, is relatively recent, and implementation of environmental management in this sector has improved in the last few years (Best & Thapa, 2011; Kilipiris & Zardava, 2012).

The destructive environmental impacts of tourism are increasing rapidly through natural resource extraction, the generation of waste and pollution, loss of vegetation coverage, the



destruction of coral reefs, and increased deforestation (Faulk, 2000; Tang *et al.*, 2011), and “the economic repercussions for destinations with visibly exhausted or polluted natural environments can be severe” (Williams & Ponsford, 2008:2). In the last two decades, an increasing number of studies have focused on the impacts of tourism on the environment and the depletion of natural resources (Tortella & Tirado, 2011). Tourists utilize greater amounts of energy, water and materials in tourism destinations than they do at home (Irandu, 2006; Saarinen, 2006; Tang *et al.*, 2011). Tourism has therefore been accused of being “a despoiler of pristine environments, a destroyer of valued lifestyles and an exploiter of poor nations” (Griffin, 2002:24) and “there is no such thing as zero impact tourism” (Irandu, 2006:191).

The increased growth in the tourism sector and its associated environmental impacts have led to debates on the sustainability of this sector and the emergence of the concept of sustainable tourism (Butler, 2008; Han *et al.*, 2011; Lozano-Oyola *et al.*, 2012). As the detrimental impacts of tourism became realized, and the rise of environmentalism and the ‘green’ consciousness emerged, the role of tourism in the environment was reassessed (Berry & Ladkin, 1997). In particular, rapid hotel development, higher occupancy rates and the higher consumption of energy and resources imposes an “increasing ecological footprint” (Chung & Parker, 2010:49), directing attention on current research agendas to “the environmental performance, environmental management and sustainable operational practices of hotels” (Leslie, 2007:315).

### **Green hotels and green guests**

Hotels can go green in various ways such as energy and water management, recycling practices, reduction in the consumption of resources, engaging with green vendors and providing green services (Rahman *et al.*, 2018, Chan, Hsu, & Okumus, 2016). The global trend is to encourage hotels to engage in green practices (Han *et al.*, 2011), resulting in an increasing number of hotels currently embarking on the implementation of environmentally-friendly practices and sustainable environmental strategies (Han *et al.*, 2011; Kang *et al.*, 2012; Bruns-Smith *et al.*, 2015). Hotels are now joining the green movement to reduce their harmful impacts on the environment and these ‘eco-hotels’ or ‘green hotels’ are being favoured in the travel and hospitality industry (Han & Kim, 2010).

Persic-Zivadinov and Blazevic (2010:166) describe an eco-hotel or green hotel as “a hotel or accommodation facility that has made important environmental improvements to minimize its impact on the environment”. According to Han *et al.* (2011:1), a green hotel is “an environmentally-friendly hotel establishment that practices green principles and programmes to help save the environment as well as to improve the hotel’s effectiveness”. ‘Green’ refers to actions that reduce the impact on the environment, is eco-friendly, environmentally responsible or environmentally friendly, and includes all properties that improve their environmental practices and credentials (Han *et al.*, 2011). Bostwick (2007) maintains that regardless of whether they are called eco-hotels, eco-lodges or green hotels, they are all part of the greening of the hospitality industry, representing a determined effort on the part of hotels to become environmentally and socially conscience. Achievement of these goals is through implementing green policies and programmes in the areas of water usage, energy efficiency and indoor environmental quality (Bostwick, 2007; Chan, Hsu, & Okumus, 2016).

Bohdanowicz (2006:680) believes that the demand for green hotel operations will increase amongst customers, and “those pioneering in related environmental work and efforts are most likely to reap most of the early benefits”. Kim, Li, Han & Kim (2016) maintain that green hotel practices have a substantial influence on customers' overall ratings and hotel performance. Knowledge of hotel guests' environmental attitudes, demographics and eco-friendly intentions can assist hotel managers to understand their potential customers to formulate effective marketing strategies (Han *et al.*, 2011; Rahman & Reynolds, 2018). According to Trang *et al.*



(2018), many multinational companies are also implementing environmental management programmes due to pressure from their customers. Gupta *et al.* (2019) believe that consumers' environmentally conscious attitudes undoubtedly influence their eco-friendly purchasing behaviors. Mensah (2004) confirms that 90% of US hotel guests prefer to stay in hotels that adopt green management.

According to Butler (2008), the Kimpton Hotels and Restaurants announced that 16% of their guests chose their hotels because of their eco-friendly practices and 53% of British and Australian tourists also preferred hotels with an environmental management programme. Manaktola and Jauhari (2007) and Kang *et al.* (2012) also reported that customers patronize hotels that implement environmentally-friendly practices. Additionally, Han *et al.* (2009) claims that guests who prefer green hotels are willing to pay more for environmentally-friendly hotel products. This is context specific as indicated by research reported on in European and Asian Countries. In the former, only 5% of the travel market paid higher prices for sustainable products (Dodds & Joppe, 2005) as compared to 52% in Asia who were willing to pay up to 10% extra for environmentally friendly products.

Generally, it is evident from the literature that tourists are becoming more environmentally aware and there is hope by some authors that tourists will become more discerning in their choice of sustainable tourism products and destinations (Masau & Prideaux, 2003; Teng, Wu & Liu, 2015, Han & Yoon, 2015; Chan, Hsu, & Okumus, 2016). Numerous studies thus focus on consumer behavior towards environmentally-friendly hotels (Chen & Peng, 2012; Choi *et al.*, 2009; Han *et al.*, 2009, 2010; Han & Kim, 2010; Kasim, 2009; Lee & Cheng, 2018; Manaktola & Jauhari, 2007; Teng, Wu & Liu, 2015; Chen *et al.*, 2018, Han & Yoon, 2015; Kim *et al.*, 2017; Gao & Mattila, 2016; Trang *et al.*, 2018).

However, the industry believes that there is no huge demand out there for environmentally-friendly products, and believe that they do not have "a lot of people banging on the door asking for greener holidays" (Rowe, 2011:1). Moreover, Johnson and Ebrahimpour (2009:500) are skeptical on this issue and noted that, "due to customer's apparent indifference, hoteliers are currently assigning eco-friendliness a low priority in their marketing efforts". This indifference is leading to a lack of demand, which means that there is no motivation for hotels to become environmentally-friendly. Williams and Ponsford (2008) and Gao and Mattila (2016) concur that travelers have not aggressively demanded environmentally-friendly tourism products. Additionally, lack of awareness on consumer attitudes, opinions and behavior about environmental issues can essentially affect hotelier's adoption of green practices (Bohdanowicz, 2006; Rahman & Reynolds, 2018).

A gap therefore exists between environmental concerns and pro-environmental behavior, as a "high degree of environmental consciousness does not necessarily translate into pro-environmental behavior" (Tzschentke, *et al.*, 2008:127). Gupta *et al.* (2019) maintain that pro-environmental behavior is complicated and is largely determined by environmental attitudes and motivations, which are relatively independent of each other. According to Tzschentke *et al.* (2008:127), "being aware and concerned is one thing, believing that one's actions bring positive change is another; one does not imply the other." Higher levels of environmental concern may lead to greater levels of action, and consumers that are generally concerned about costs tend to possess a low level of environmental concern with consumers having a high level of environmental concern are motivated by ethics (Tzschentke *et al.*, 2008). Moreover, Sasidharan's (2002:171) research indicates that environmental education and awareness of consumers "does not stimulate environmentally responsible purchasing behavior", and Tzschentke *et al.* (2008) questions whether environmental measures of consumers are an accurate reflection of their environmental concerns.





Faulk (2000:5) further cautions against the ambiguities regarding the term 'green tourist' and suggests, "there should be distinctions or 'shades of green' among tourists". Often customers are unable to identify an environmentally-friendly establishment due to their own lack of knowledge (Carter *et al.*, 2004:58). Despite the distinctions that can be made, the so-called 'green consumer' are individuals "whose purchasing decisions are substantively influenced by ethical motives" (Weaver, 2006:62). Green tourists are largely concerned with wildlife, transport, conservation, use of resources, pollution, construction and planning and the practice of tourism firms and seek to purchase eco-friendly products and services from firms that favour environmental practices (Faulk, 2000; Gupta *et al.*, 2019). Such actions have the power to change the tourism industry (Han *et al.*, 2009:1). Despite the concerns raised, the emergence and growth of green products indicate that tourists are becoming more aware of sustainable and environmentally-friendly products (Bumgarner, 1994; Gustin & Weaver, 1996; Kim & Han, 2010; Robinot & Giannelloni, 2010). Whilst the demand for green tourism products are not as great, tourists often do not return to destinations of poor environmental quality (Williams & Ponsford, 2008).

### **Conceptual issues**

The social identity theory is a relevant framework to examine customer's level of environmental concerns as "people tend to associate themselves with organizations whose identities are enduring, distinctive and capable of increasing their self-esteem" (Kang, *et al.*, 2012:565). Customers who are concerned about environmental issues tend to identify with companies that exert intense environmental practices (Lee and Cheng, 2018). Another theoretical foundation used by researchers for examining environmental concerns of customers is the means-end theory. Here customers' values influence their purchasing behavior and customers who are concerned about the environment are more likely to purchase green products and services (Kang *et al.*, 2012). More than 75% of the world's population used environmental standards in their purchasing behavior (Peattie, 1992). Therefore, "in order to create green markets and satisfy the need to transform what consumers need into products they would likely purchase, it is first necessary to analyze actual consumers' needs and wants" (Choi *et al.*, 2009: 98). It is against this backdrop that the current study examines the perceptions and needs of hotel guests in terms of environmentally-friendly practices.

### **Methodology**

A simple random sample of twenty, star-graded hotels in KwaZulu-Natal were included in this study. The convenience sampling method was used to draw a sample of 20 guests from each of the selected hotels over a period of one month. Thus, 400 guests were targeted for the study. Ethical consideration was given in the selection of the sample and in the administration of questionnaires. Informed consent was obtained from hotels and guests prior to data collection. Hotel managers and guests were informed of the purpose of the study, and at the outset, permission for their involvement in the study was obtained. Respondents were further assured that their participation in the study was voluntary. The confidentiality and anonymity of respondent's identities was assured, as the identity of hotels and guests was not required for the study, nor was there any disclosure of this in the research report. Permission was sought to access hotels well in advance of the data collection. A total of 354 completed questionnaires, comprising of quantitative and qualitative questions, were utilized in the study. The questionnaires were handed to hotel guests for self-completion. The structured questionnaires examined the attitudes and behaviors of consumers towards environmental practices in hotels, and included questions on guests' perceptions of the hotel sector's use of environmental practices, guests' attitudes towards green practices in hotels, preferences when travelling, environmentally-friendly practices adopted personally, importance of selected



responsible criteria of hotels, and the socio-demographic profiles of guests. A large portion of the questionnaire comprised of Likert (five and three-point) scales used to gauge opposite extremes in thinking, with a neutral mid-point. SPSS was used to input primary data and generate the tables, figures, descriptive and inferential statistics.

Cronbach's Alpha values were used to determine the measure of internal consistency of scale questions used to measure the underlying variables. For the level of importance of environmentally-friendly measures in hotels, the alpha coefficient was 0.949 (excellent internal consistency), for the perceptions pertaining to the environmental and environmentally-friendly measures at hotels, the alpha coefficient was 0.714 (acceptable internal consistency) and for environmental measures that may reduce level of satisfaction and comfort at a hotel, the alpha coefficient was 0.860 (good internal consistency).

## Results and discussion

Dolnicar (2010), Dolnicar *et al.* (2008) and Mehmetoglu (2010) contend that the most important variables in assessing environmental behavior are age, gender, education, income and political orientation. Some researchers have explored demographic variables concerning environmental perceptions and have found that age and education relate to environmental perceptions and attitudes (Jurowski *et al.*, 1997).

| Respondents characteristics               |                      | Percentage |
|---|----------------------|------------|
| Age of respondents<br>(n=354)             | 21-30 years          | 16.9       |
|   | 31-40 years          | 30.5       |
|   | 41-50 years          | 25.4       |
|   | 51-60 years          | 21.2       |
|   | More than 60 years   | 5.9        |
|   | <b>Total</b>         | <b>100</b> |
| Education level of respondents<br>(n=354) | No formal education  | 1.7        |
|   | Completed school     | 12.4       |
|   | Certificate/diploma  | 24.6       |
|   | Degree               | 32.8       |
|   | Post-graduate degree | 28.5       |
|   | <b>Total</b>         | <b>100</b> |
| Gender of respondents<br>(n=354)          | Male                 | 42.4       |
|   | Female               | 57.6       |
|   | <b>Total</b>         | <b>100</b> |
| Preferred category of hotel<br>(n=354)    | 1-3 star             | 29.7       |
|   | 4-5 star             | 49.2       |
|   | Does not matter      | 21.2       |
|   | <b>Total</b>         | <b>100</b> |

**Table 1: Characteristics of respondents**

In understanding the profile of respondents, this study examined variables such as age, gender, educational level and preferred hotel category. More than half (55.9%) of respondents were between the ages of 31 to 50 years, 27.1% were above 50 years old and 16.9% were between 21 to 30 years old. The respondents in the study comprised 57.6% females and 42.4% males. In terms of educational level, the majority of the respondents (85.9%) had post-school qualifications, with 24.6% having a certificate or diploma, 32.8% a degree and 28.5% a post-graduate degree. A small proportion of respondents (1.7%) had no formal education, whilst 12.4% had only completed school. The data further reveals that respondents in the

study preferred to stay in 4 and 5 star hotels (49.2%) and 1 to 3 star hotels (29.7%), whereas 21.2% of respondents had no particular preference in terms of hotel star grading for their stay.

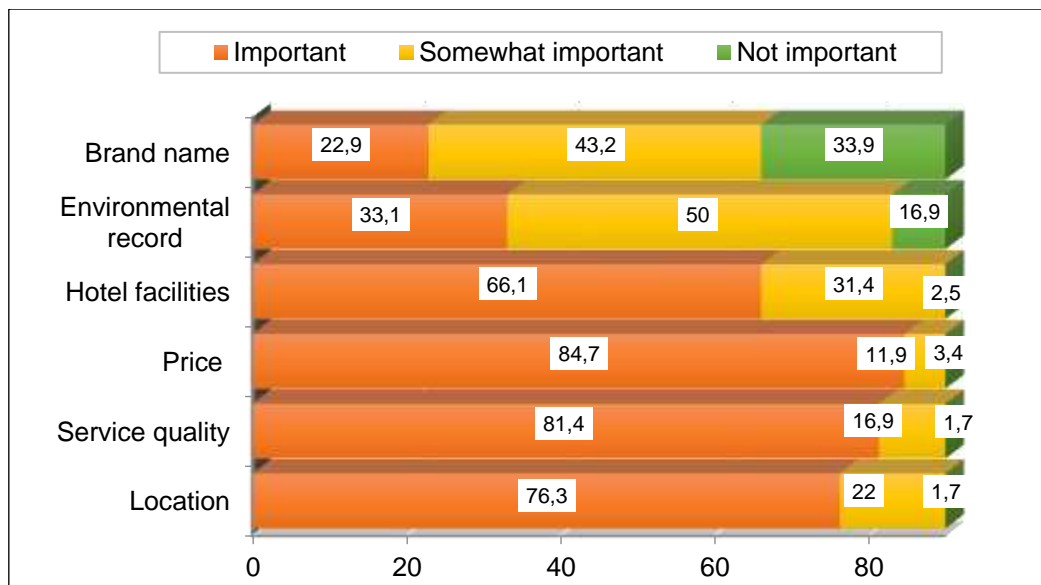


Figure 1: Importance of attributes in hotel choice (n=354)

Respondents were asked to rate their level of importance to attributes when choosing a hotel, on a 3-point Likert scale, with '1' being 'important' and '3' being 'not important'. When choosing a hotel, the most important attribute to respondents was price as indicated by 84.7% of respondents, followed by service quality (81.4%), location (76.3%) and hotel facilities (66.1%). The least important attributes in hotel choice was the brand of the hotel and the environmental record of the hotel (Figure 1).

The findings of this study concurs with other studies where price, service quality and location were regarded as important attributes in hotel choice. For example, in a study of European hotels, Bohdanowicz and Martinac (2007) found that the hotel location and its service quality were the most significant factors affecting customer choice. Additionally, Kasim (2009), in his study of Malaysian hotels, found service quality and price as important attributes. According to Chan and Hawkins (2012:410) "...having an environmentally-friendly image is definitely a plus, but not all hotel guests appreciate environmental best practices implemented by a hotel, as some may place their needs and expectations above those of environmental concern." One of the respondents in this study further stated:

I am always impressed with indications of environmental awareness, even small measures, for example, attempts to avoid unnecessary laundering of linen by requesting guests to indicate when they require linen change; a fixed soap dispenser in showers rather than individual little containers for each guest. I confess I am not au fait with industry awards for environmental efforts. My prime drivers when selecting are as indicated: location, cost and service.

However, some studies have found environmental aspects to be significant attributes in hotel choice. The study by Manaktola and Jauhari (2007) observed that 22% of hotel guests in Delhi searched for environmental information when choosing hotels, and 55% paid attention to environmental initiatives. Another study undertaken by the English Tourism Council in 2002 cited by Font and Wood (2007), revealed that 58% of respondents chose an accommodation establishment committed to the environment. In Malaysia, 55% of hotel guests cared about the environmental attributes of a hotel (Kasim, 2009), and approximately 48% of tourists in



Northern Norway indicated an above average concern for the environment and that environmental performance was a deciding factor in destination choice (Jacobsen, 2007). It should be noted, however, that although guests may select their initial visit to a hotel based on location, price and amenities, returning customers focus on the level of environmental commitment of the hotel (Graci & Dodds, 2008; Yi, *et. al.*, 2018).

|                          | Value  | df | Asymp. Sig. (2-sided) |
|--------------------------|--------|----|-----------------------|
| Age                      | 49.365 | 8  | .000*                 |
| Gender                   | 7.385  | 2  | .025*                 |
| Preferred hotel category | 10.541 | 4  | .032*                 |
| Educational level        | 5.913  | 8  | .657                  |

**Table 2: Chi-Square results of respondent's profile and importance of environmental record in hotel choice**

(\* indicates significance level <0.05)

A Pearson's chi-square test of association was undertaken to further ascertain the association between importance of environmental record in hotel choice and age, gender, educational level and preferred hotel category (Table 2). The alpha level of .05 was used for all statistical tests. There was a significant relationship between the importance of environmental record and age of respondents ( $\chi^2=49.356$ ,  $p=.000$ ), with the level of importance to environmental record increasing with age. The importance of environmental record in hotel choice and gender also revealed a significant relationship ( $\chi^2 =7.385$ ,  $p=.025$ ), with females denoting a higher level of importance to environmental record in hotel choice compared to males. A significant association was also noted between importance of environmental record in hotel choice and preferred hotel category ( $\chi^2 =10.541$ ,  $p=.032$ ), with those that preferred 1 to 3 star hotels citing a higher level of importance to environmental record. According to Hsiao and Chuang (2016), differences in green practices could be caused by the service provision of hotel star rating. Given that four and five-star hotels must provide exceptional service quality, some environmentally-friendly measures are considered as low achievability to avoid customers' inconvenience and discomfort.

| Environmentally-friendly measures                | Important | Somewhat important | Not important |
|--|-----------|--------------------|---------------|
| Hotel supports local business                    | 31.4      | 39.0               | 29.6          |
| Hotel employs local people                       | 46.6      | 31.4               | 22.0          |
| Hotel has energy saving features                 | 51.7      | 30.5               | 17.8          |
| Hotel has water saving features                  | 52.5      | 29.7               | 17.8          |
| Hotel educates guests on environmental issues    | 39.0      | 39.0               | 22.0          |
| Hotel provides staff with environmental training | 58.5      | 24.6               | 16.9          |
| Hotel communicates environmental actions         | 54.3      | 28.8               | 16.9          |
| Hotel has a recycling program in place           | 56.8      | 28.0               | 15.2          |
| Hotel uses environmental reputation in marketing | 44.9      | 35.6               | 19.5          |
| Hotel donates to local charity                   | 43.2      | 33.9               | 22.9          |

**Table 3: Importance of environmentally-friendly practices in hotels**

Respondents were asked to rate the level of importance they placed on environmentally-friendly measures at hotels, on a 3-point Likert scale ranging from '1' as 'important' to '3' as 'not important'. Evidently, providing staff with environmental training was rated as the most important environmentally-friendly practice by 58.5% of respondents. This was followed by a recycling program (56.8%), communicating environmental actions (54.2%), water saving measures (52.5%), energy saving measures (51.7%), employing local people (46.6%), the marketing of environmental reputation (44.9%), and donations to local charities (43.2%). The least important environmentally-friendly practices for guests were educating guests on environmental issues (39%) and the hotels support of local businesses (31.4%).





Chan (2008:193) affirms that, “customers normally are the key driver for the adoption of environmental management and have influence far beyond any of the other stakeholders.” Therefore, influencing the environmental behavior of guests is an important aspect of environmental management. Hotels can use newspapers, posters, flyers or annual reports to provide environmental information to guests and the public. In Ghana, 67% of hotels were found to have educated guests on environmental issues (Mensah, 2006). Similarly, Knowles *et al.* (1999) found that 50% of the hotels in London brought environmental issues to the attention of hotel guests, whilst Kattara and Zeid concluded that more than 70% of hotels in the Red Sea considered flyers as an important means to communicate and enhance environmental awareness.

Han *et al.* (2010), Kang *et al.* (2012) and Chang *et al.* (2015) assessed factors affecting the behavior of green guests and their willingness to pay for environmentally-friendly hotels, and found that one of the constraints that tourists face when choosing green hotels is the lack or difficulty to access information on it. Chen and Chang (2013:1394) also confirmed that “if the information about a company’s green behavior is interpreted by the customers as a mere ‘greenwash’, this negatively affects their ‘green trust’”. There is therefore a dire need for hotels to pay special attention to their environmental communication and how it is perceived by their guests (Lee & Cheng, 2018; Yi *et al.*, 2018). In this regard, environmental accreditations, awards and certifications of environmentally responsible hotel’s behavior should be emphasized in advertising and communication materials to guests (Yi *et al.*, 2018).

|   | Strongly agree | Agree | Neutral | Disagree | Strongly disagree | Mean |
|---|----------------|-------|---------|----------|-------------------|------|
| Prefer to stay in environmentally-friendly hotels                   | 28.8           | 42.4  | 25.4    | 1.7      | 1.7               | 2.05 |
| Prefer hotels with environmental awards and accreditations          | 18.6           | 37.3  | 37.3    | 4.3      | 2.5               | 2.35 |
| Willing to pay a higher price for environmentally-friendly hotels   | 5.9            | 23.7  | 28.0    | 37.3     | 5.1               | 3.12 |
| Environmentally-friendly hotels compromise luxury and comfort       | 5.9            | 11.0  | 30.5    | 39.0     | 13.6              | 3.43 |
| Environmentally-friendly hotels are of a lower quality and standard | 1.7            | 5.9   | 20.4    | 50.0     | 22.0              | 3.85 |
| Current star rating should include environmental issues             | 28.8           | 45.8  | 16.9    | 5.1      | 3.4               | 2.08 |
| There is an urgent need to conserve our natural resources           | 54.3           | 34.7  | 4.2     | 1.7      | 5.1               | 1.69 |

**Table 4: Respondents attitude towards environmental issues in hotels**

Respondents were asked to rate their level of agreement with various statements pertaining to environmental issues at hotels. The majority of respondents agreed that there is an urgent need to conserve our natural resources (mean=1.69). Other statements that respondents highly agreed on were that they prefer to stay in environmentally-friendly hotels (mean=2.05); the current star rating should include environmental issues (mean=2.08); and they prefer hotels with environmental awards (mean=2.35). Respondents somewhat disagreed with the willingness to pay higher prices for environmentally-friendly hotels (mean=3.12), that environmentally-friendly hotels compromise luxury and comfort (mean=3.43) and that environmentally-friendly hotels are of a lower quality (mean =3.85).

Although 71.2% of respondents agreed that they preferred to stay in environmentally-friendly hotels, only 29.6% were willing to pay a higher price for an environmentally-friendly hotel (Table 4). Tzschentke *et al.* (2008) maintains that 80% of tourists would prefer



environmentally-friendly hotels if given a choice. However, consumer demand and willingness to pay higher prices for green products is unclear, as research on these issues, according to Kang *et al.* (2012), has produced mixed findings. For example, Penny (2007) found that improving environmental performance might not increase customers' satisfaction, as price is a major customer consideration in hotel choice, followed by location and service quality. In addition to these factors, "environmental ethics does not appear to trump any of these purchasing factors" (Williams & Ponsford, 2008:4).

Manaktola and Jauhari (2007) found that consumers looked for tangible evidence of a hotel's environmental commitment that entails visible communication and a display of green practices, participation in environmental accreditation schemes and recycling, and the use of environmentally-friendly products. Aker (2008:56) avers, "that there is an ever-increasing segment of the population looking for properties that are incorporating green and sustainable business practices. It's not a trend that is going to go away". However, Chan and Hawkins (2012) found that although a green image was an added bonus, not all guests favor environmentally-friendly hotels, as other concerns affect their needs and expectations.

According to Table 4, 74.6% of respondents in this study agreed that the current star grading system should incorporate environmental issues (Table 4). The current star grading system in South Africa is criticized for not giving importance to green credentials of a hotel and only "fulfills the criteria of green-wash" (Ashton, 2012:1). Little attention is given to solar water heating, LED lighting, recycling, and natural ventilation. Instead, the Tourism Grading Council of South Africa's (TGCSA) grading criteria allocates a high scoring for towels being washed daily and for the presence of dishwashers and large fridges, all of which are against the greening of the environment (Ashton, 2012).

Additionally, Table 4 denotes that 72% of respondents disagreed that environmentally-friendly hotels are of a lesser quality and 52.6% disagreed that environmentally-friendly hotels compromise luxury and comfort. Whilst the findings of this study concurs with some previous studies (Graci & Dodds, 2008; Han & Kim, 2010; Kasim, 2009), it is dissimilar to others that indicate guests often make it difficult to implement environmental measures as hotels fear that it would negatively affect guest comfort and satisfaction (Chan & Hawkins, 2010). In Malaysia, for example, 57% of hotel guests preferred freshly laundered towels daily (Kasim, 2009). A paradox thus exists between consumers and the environment as "consumers expect the natural beauty to remain, but are not willing to help it remain because they are not ready to sacrifice their hotel experience for environmental practices" (Johnson *et al.*, 2009:499). Environmental changes in hotels are unlikely to occur unless "consumers are willing to exchange the comforts they abuse for environmentally-friendly programs" (Johnson *et al.*, 2009:499).

Only 29.6% of respondents in the study agreed that they were willing to pay higher prices for environmentally-friendly hotels (Table 4). Conversely, larger proportions of hotel guests reported that that they are willing to pay higher prices for environmentally-friendly hotels in New Zealand (61%) (Fairweather *et al.*, 2005) and in Kenya (66%) (Masau & Prideaux, 2003). Numerous other studies (Guadalupe-Fajardo, 2002; Bumgarner, 1994; Gustin & Weaver, 1996; Kang *et al.*, 2012; Han *et al.* 2010; Kostakis & Sardianou, 2012) also found that guests were willing to pay more, either in tariffs or in an additional tax, for environmentally-friendly hotels in the USA and in Asian countries such as Thailand and Indonesia. In such cases, hotels are under pressure to increase their environmental performance. Whilst some researchers indicate that consumers are willing to pay higher prices for greener hotels, other studies indicate unwillingness to pay extra money for environmental practices (Gao *et al.*, 2016; Johnson *et al.*, 2009). One respondent in this study stated:



Hotel products are usually inflated because of environmental operations. If it worked the opposite way, then far more people would be in favor. Often people just cannot simply afford the costs.

However, whilst Han *et al.* (2009) and Manaktola and Jauhari (2007) concluded from their studies that green hotel prices do not differ greatly from non-green hotels, Rivera (2002) found that Costa Rican hotels that were enrolled in sound environmental programmes were associated with higher prices.

| Environmental issues  | Age                        | Gender                     | Education level             | Preferred hotel category   |
|---|----------------------------|----------------------------|-----------------------------|----------------------------|
| Prefer to stay in environmentally-friendly hotels                 | $\chi^2=50.100$<br>p=.000* | $\chi^2=3.664$<br>p=.453   | $\chi^2=18.924$<br>p=.273   | $\chi^2=22.489$<br>p=.004* |
| Prefer hotels with environmental awards and accreditations        | $\chi^2=59.821$<br>p=.000* | $\chi^2=5.211$<br>p=.266   | $\chi^2=24.806$<br>p=.073   | $\chi^2=22.901$<br>p=.003* |
| Willing to pay a higher price for environmentally-friendly hotels | $\chi^2=35.945$<br>p=.003* | $\chi^2=20.553$<br>p=.000* | $\chi^2=19.419$<br>p=.248   | $\chi^2=35.708$<br>p=.000* |
| Environmentally-friendly hotels compromise luxury and comfort     | $\chi^2=32.471$<br>p=.009* | $\chi^2=3.024$<br>p=.554   | $\chi^2=121.546$<br>p=.000* | $\chi^2=14.020$<br>p=.081  |
| Environmentally-friendly hotels are of a lower quality            | $\chi^2=28.743$<br>p=.026* | $\chi^2=6.121$<br>p=.190   | $\chi^2=54.829$<br>p=.000*  | $\chi^2=27.711$<br>p=.001* |
| Current star rating should include environmental issues           | $\chi^2=50.478$<br>p=.001* | $\chi^2=15.885$<br>p=.069  | $\chi^2=9.643$<br>p=.885    | $\chi^2=31.471$<br>p=.000* |

**Table 5: Chi-square result of respondent's attitude towards environmental issues in hotels by respondent's profile**

(\* indicates significance level <0.05)

A Pearson's chi-square test was undertaken to ascertain the association between respondent's attitude towards environmental issues and respondent's profile (Table 5). The alpha level of .05 was used for all statistical tests. Prefer to stay in environmentally-friendly hotels ( $\chi^2=50.100$ , p=.000), prefer hotels with environmental accreditations ( $\chi^2 =59.821$ , p=.000), willingness to pay higher prices for environmentally-friendly hotels ( $\chi^2 =35.945$ , p=.003), environmentally-friendly hotels compromise luxury and comfort ( $\chi^2=32.471$ , p=.009), environmentally-friendly hotels are of a lower quality ( $\chi^2=28.743$ , p=.026), current star rating should incorporate environmental issues ( $\chi^2=50.478$ ), p=.000), and there is a need to conserve the environment ( $\chi^2=56.567$ , p=.000), are significantly associated with age. Although, environmental purchasing has shown that older customers are more inclined to purchase environmentally friendly products (Han *et al.*, 2015), Jurowski *et al.* (1997) found that younger tourists valued environmentally-friendly practices more than older tourists due to being more exposed to environmental issues.

The Chi-square analysis generated a significant association between the willingness to pay a higher price for environmentally-friendly hotels and gender ( $\chi^2=20.553$ , p=.000) with females being more inclined to pay a higher price for environmentally-friendly hotels. Social theory suggests that men and women show disparate behavior in society (Han *et al.*, 2010). Miao and Wei (2012) claim that although women had a lesser degree of environmental knowledge than men did, women showed a greater concern for the environment. The findings of this study concur with that of Han *et al.* (2011) who found that women were more environmentally conscious and the intention to pay more for environmentally-friendly products was higher for them. However, this study differs from that of Kostakis and Sardianou (2012) who found that men were more willing to pay extra for green hotels than women. The education level of respondents yielded a strong association with the statement that green hotels compromise luxury and comfort ( $\chi^2=121.546$ , p= .000) and green hotels are of a lower quality ( $\chi^2=54.829$ , p=.000). Respondents with lower education levels agreed that green hotels compromise luxury and comfort and green hotels are of a lower quality.



Chi-square tests were also undertaken to ascertain the level of association between preferred hotel category and guest's attitude towards environmental issues in hotels. A strong association was found between preferred hotel category and preference to stay in environmentally-friendly hotels ( $\chi^2=22.489$ ,  $p=.004$ ), with a higher percentage of those preferring 1 to 3 star hotels favoring to stay in environmentally-friendly hotels. The chi-square analysis also revealed a significant association between hotel category preference with environmental awards ( $\chi^2=22.901$ ,  $p=.003$ ), with a higher percentage of those preferring 1 to 3 star hotels favoring hotels with environmental accreditations. Preferred hotel category and the willingness to pay higher prices for environmentally-friendly hotels yielded a significant association ( $\chi^2=35.708$ ,  $p=.000$ ), with a higher percentage of those preferring 4 to 5 star hotels favoring to pay more for environmentally-friendly hotels.

A significant association was further obtained between preferred hotel category and the perception that environmentally-friendly hotels are of a lower quality ( $\chi^2=27.711$ ,  $p=.001$ ), where a higher percentage of those that prefer to stay in 4-5 star hotels being of the opinion that environmentally-friendly hotels are of a lower quality. Preferred hotel category and the perception that the current star rating should incorporate environmental issues ( $\chi^2=31.471$ ,  $p=.000$ ), showed a significant association, with a higher proportion of respondents that prefer to stay in 4 to 5 star hotels agreeing with this statement.

|                                    | Strongly agree | Agree | Neutral | Disagree | Strongly disagree | Mean |
|------------------------------------|----------------|-------|---------|----------|-------------------|------|
| Dimming of lights in public areas  | 16.9           | 25.4  | 12.7    | 33.1     | 11.9              | 2.97 |
| Low-flow showers                   | 14.4           | 39.0  | 14.4    | 19.5     | 12.7              | 2.77 |
| Low-flow taps                      | 14.4           | 33.9  | 12.7    | 28.0     | 11.0              | 2.87 |
| Re-use of towels                   | 25.4           | 20.3  | 11.9    | 30.5     | 11.9              | 2.83 |
| Re-use of linen                    | 25.4           | 21.2  | 15.3    | 27.1     | 11.0              | 2.77 |
| Restricted use of air conditioning | 22.0           | 28.8  | 23.7    | 19.6     | 5.9               | 2.58 |
| Use of showers instead of baths    | 11.9           | 18.6  | 18.6    | 32.3     | 18.6              | 3.27 |
| Use of local goods and services    | 10.2           | 15.3  | 16.9    | 35.6     | 22.0              | 3.44 |
| Use of recycling bins              | 11.0           | 7.6   | 10.2    | 37.3     | 33.9              | 3.75 |

**Table 6: Environmental practices that may reduce level of satisfaction and comfort at a hotel**

Table 6 depicts the data on the environmental measures that respondents believed may reduce their level of satisfaction and comfort at a hotel. The most cited measures were the restricted use of air-conditioning (mean=2.58), low flow showers (mean=2.77), the re-use of linen (mean=2.77), the re-use of towels (mean=2.83), low-flow taps (mean=2.87), and the dimming of lights in public areas (mean=2.97). To a lesser extent, environmental practices that are inclined to reduce the level of satisfaction and comfort in a hotel were the use of showers instead of baths (mean=3.27), the use of local goods and services (mean=3.44) and the use of recycling bins (mean=3.175). Although studies confirm that green attributes in hotels do contribute to increasing the levels of customer satisfaction in French hotels (Robinot & Giannelloni, 2010), an opposing viewpoint was expressed by Kattara and Zeid (2002:156):

Unfortunately, although the public's attitude is changing, the market is segmented. While there are some people who are not impressed with luxury if it violates the principle of environmental friendliness, there are many others that seek, as part of the hospitality experience, to be pampered with high-pressure showers, freshly laundered linen and a limousine to take them to the airport.

Generally, certain environmental practices in hotels may reduce levels of customer satisfaction whilst others may not. Consumer behavior may be the biggest challenge in





environmental action since “consumers may be a harder sector to influence” and environmental actions “may be viewed as a drop in standards” (Tzschentke *et al.*, 2008:169). The main area of concern in the implementation of environmental practices is its impacts on the levels of customer satisfaction and “falling short of guests’ expectations was a recurrent fear” hotel managers were faced with and “striking the right balance is where the difficulty lies” (Tzschentke *et al.* 2008:174). Liu and Sanhaji (2009:68) argue that hotels are generally reluctant to engage in environmentally responsible practices “for fear of interfering with guests’ comfort”, and Brace (2007:17) believes that “hotels will only change if the consumer does.”

## Conclusion

It is clear that hotel guests place high levels of importance on environmentally-friendly practices. People have become more environmentally sensitive due to the seriousness of environmental problems. Guests are consumers of hotel goods and services and therefore their commitment to green consumption patterns will ultimately influence the environmental performance of the hotel sector. Demographic characteristics of consumers such as age, gender, education and income are significant factors in understanding consumer behavior. It was also evident that a higher proportion of females were willing to pay more for environmentally-friendly hotels compared to males. The majority of guests had post-school qualifications and almost half the guests preferred four star and five star hotels that were environmentally-friendly. Most guests considered price to be a key attribute when selecting hotels, whilst service quality and location were of lesser importance and brand name the least important factor. Over half the guests gave preference to hotels that had environmental accreditations, and a large number believed that the current star grading should incorporate green issues and be graded according to environmental actions, as is the case in Qatar and Abu Dhabi (Hensens, 2016). Very few guests believed that green hotels are of a lesser quality and compromised luxury and comfort. According to most guests, the restricted use of air conditioners, low-flow showers and taps and the re-use of towels may reduce guest satisfaction levels and comfort in hotels.

Customer demand for environmentally-friendly products is likely to bring about the most visible change in environmental commitment by hotels. The challenge lies in influencing consumers to engage, voluntarily in environmental practice, or forcibly through government-imposed programmes such as carbon taxation. Educational campaigns should target the public to increase consumer demand for environmentally-friendly hotels, as the lack of environmental education is largely responsible for a lack of demand from consumers. While hotels may be willing to implement environmental measures, they fear that this may create the risk of losing customers due to misperception of a reduction in service quality. Hotels are therefore not totally convinced that environmental management is the right thing to do. The challenge for hotel managers is to try to integrate environmental procedures without compromising quality. Guest should be educated on environmental issues and be invited to participate in ecological activities to encourage responsible guest behavior. Hotels should actively advertise their environmental efforts to influence the customer decision-making process, as a lack of communication of information to guests impedes environmental progress. Provision of environmental education and accreditation schemes in brochures, guidebooks and websites can provide potential guests with added information to assist in their selection.

There is also a need to eliminate consumer skepticism of environmentally-friendly products. This will allow hotels to implement green measures without causing negative perception and dissatisfaction to guests. Marketers of green hotels should actively position their products to the environmentally conscious consumer. At the same time, marketers should inform the less environmentally conscious guest of the need to conserve the environment, and the benefits of





their contributions towards environmental management. This will motivate environmentally-friendly habits of consumption, and will help transform green hotels into commercially attractive options.

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