



Generation Y's perceived preference for green hotels

Roland S. Urwin & Erica A. Sao Joao*
School of Tourism and Hospitality
Bunting Road campus
University of Johannesburg
Auckland Park
Johannesburg, South Africa
E-mail: ericasj@uj.ac.za

Corresponding author*

Abstract

The global business environment and hospitality industry have followed the trend of showing a significant increase in environmentally friendly (EF) practices and facilities. Generation Y consumers are a socially conscious generation, who are known to think of the negative impact on the environment. Internationally, consumers have become more aware and action-orientated of the greening trend, as there is an increased market demand towards environmentally friendly business approaches. The objective of the study was to identify the perceived impact of environmentally friendly facilities and practices that Generation Y consumers have towards the greening trend within the hospitality industry. The research followed a quantitative survey research design, with a non-probability convenience sample of 100 personally administered questionnaires that were completed, collected and analysed. The results indicated that Generation Y consumers have shown a shift towards requesting greening within hotels but not to the extent of international consumers. The findings agreed with international research in terms of respondents having a positive environmental awareness, showing that 83% were willing to stay in a green hotel. Respondents generally agreed to environmentally friendly facilities and practices within hotels. Generation Y consumers in South Africa have moved consciously towards demanding greening within the hospitality industry, which will have a positive impact on the hotel market. This trend is expected to grow to match international positive perceptions of greening within the hospitality industry. An increased effort by hotels to promote greening would increase awareness and improve the competitive advantage of these.

Keywords: Environmentally friendly, Generation Y, green hotel, hospitality industry, sustainable development.

Introduction

Globally, the hospitality industry has seen a change in approach towards a more environmentally friendly hotel with green hotels becoming the preferred way of operating. This shift has come about because of pressure from environmentally conscious organisations and guests. To conserve the planet, management in a green hotel aims to reduce water and energy consumption whilst saving on costs (Karavasilis, Nerantzaki, Pantelidis, Paschaloudis & Vrana, 2015:268-269; Kubickova, Nusair, Parsa & Hu, 2015:4; Mbasera, Du Plessis, Saayman & Kruger, 2016:1). This trend has grown within the United States of America due to extensive media coverage, including the Earth Summit in 1992, and the launch of the Agenda 21 programme (Micioni, 2003:8). The greening trend in the South African hotel groups introduced environmentally friendly and sustainable development programmes, which included friendly practices and procedures (Leonard & Dlamini, 2015:2-3). For instance, companies and programmes such as the Hospitality Property Fund (Irmiler, 2015:70), Green Engage



(IHG, 2016:742), Thaba Eco hotel (2016:5) and Responsible Business Program (The Rezidor Hotel Group, 2013).

This awareness resulted in an increased concern for the environment (Karavasilis et al., 2015:268; Kheiry & Nakhaei, 2012:172), prompting consumers to implement environmentally friendly practices in the way they live and work (Lee, Hsu, Han & Kim, 2010:911). Consumer demand has generated a gap in the market for greener business practices and construction, focusing attention on how their activities affect the environment in which they operate. McGraw-Hill Construction (2013:34) indicated that the greener approach towards business and construction tripled in South Africa from 2012 to 2015. Other research showed that a consumer's positive thoughts towards the environment would increase the purchase action for green products and services (Kheiry & Nakhaei, 2012:173; Martínez, Herrero & Gómez-López, 2019:6). Cometa (2012:1-2) echoed the importance of the hospitality industry but stated that there is limited research concerning customers' perception of green hotels. Generation Y consumers have an environmentally conscious ethos and a concerned attitude towards the treatment of the environment. Generation Y consumers are according to some researchers, between the ages of 21 and 36 (Kubickova et al., 2015:2) but there is some variance. Generation Y generally refers to people born between 1980 to 1995 therefore, current ages (in 2019) are between 24 and 39 years (Kubickova et al., 2015:2). According to Valentine and Powers (2013:597), various researchers argue, which are the exact years when Generation Y consumers were born. However, for this research project, it applies to those people born between 1980 to 1995. They are predicted to have a substantial impact on business in terms of the kind of product and services desired (Harris, Stiles & Durocher, 2011:42) since they are more planetary sustainability conscious. Generation Y consumers are predicted to increase to 50% of all consumers by 2025 (Turek, Gebbie, Chan & Durand, 2015:5).

The research aimed to investigate the perceived influence that Generation Y consumers would have on environmentally friendly practices and facilities within green hotels. Globally, the trend has influenced many hospitality operators to introduce environmentally friendly practices as consumers have shown interest in greening practices (Lee et al., 2010:901).

Literature review

The tourism and hospitality industry is one of the largest worldwide and continues to grow at a steady rate (Calicchio, 2019). Its profitability makes it an attractive industry for many countries to invest in, by boosting growth and development within their economies. However, there are negative effects; for example, the destructive effects on the environment with regards to water, air and soil pollution (Graci & Dodds, 2008:252; Penny, 2007:287). The appeal of a tourist location is determined by its natural beauty and realism of these resources, which are negatively affected by overexploitation and degradation (Graci & Dodds, 2008:254). With the expected growth of the tourism and hospitality industry, the environmental impact will be significant, with higher consumption rates of energy and non-recyclable resources. This, in turn, will lead to the development and implementation of environmentally friendly practices (Jiang & Kim; 2014:309; Martínez-Martínez, Cegarra Navarro, García-Pérez & Moreno-Ponce, 2019:663).

Research has indicated that internationally, the environmentally friendly trend has become a focus to ensure sustainability in the tourism industry by implementing these various greening practices and procedures because of consumer demand. This shift indicated a need to investigate the potential preferences for greening facilities and practices in the hospitality sector in South Africa (Eirini & Antonia, 2014:51-52). A green hotel is one that incorporates greening and environmentally friendly practices in the building and facilities (Millar, 2010:5; Jiang & Kim, 2014:310), by finding new

knowledge, experiences and operational practices that help improve decisions for the betterment of the environment (Micioni, 2003:5). Karavasilis et al. (2015:268) and Kubickova et al. (2015:12) added that a green hotel is one, which is more environmentally friendly through the better use of water, energy and materials while maintaining service standards and efforts to remain sustainable. Taking into consideration the factors affecting the implementation of greening in a hotel, a decision is still based on the hotel's social behaviour (Leonard & Dlamini, 2015:3; Martínez- Martínez, et al., 2018:673). Hotel operators see the implementation of these practices as challenging, despite agreeing to the importance of greening. There is a cost associated with the initial introduction of these practices and the potential effect on guest satisfaction levels, especially when hotels are known to focus on lavishness, luxury and splendour (Penny, 2007:293).

Kubickova et al. (2015:3) conducted a study to better understand Generation Y behaviour towards greening procedures and practices within the hospitality industry, concluding that this populations' preference for greening is unclear. Their environmentally conscious ethos and concerned attitude is displayed by an increase in social awareness, thus hotels have begun to implement greening practices into their operations (Karavasilis et al., 2015:268). Sustainability within hotels is viewed as the efficient use of resources to ensure an extended duration and reduce the negative impact that hotels have on the environment (Bärlund, 2004). Karavasilis et al. (2015:269,276) inferred that hotels should implement greening procedures and improved marketing strategies to better their market position amongst other hotels. Graci and Dodds (2008:257-258) have a different point of view in that by incorporating the competitive and financial benefits of three areas: pollution prevention, product stewardship and sustainable environmental activities, there will most likely be a stronger economic performance. Figure 1 displays the advantages of greening practices within the hospitality industry.



Figure 1. Advantages of greening in the hospitality industry (Adapted from Graci & Dodds, 2008:258)

With the introduction of green practices and procedures, there are economic benefits such as the reduction of costs, which becomes a positive motivator for hotel operators (Graci & Dodds, 2008:258-259; IHG, 2016:742). If hotels can improve efficiency and reduce waste, this would lead to cost reductions, increased customer satisfaction, greater guest loyalty, improved employee morale and improved competitor advantage and therefore sustainability (Mbasera, Du Plessis, Saayman & Kruger, 2018:9). A hotel can decrease its energy consumption by 20-40% through environmentally friendly practices, without affecting operating efficiency. The Rezidor Hotel Group (2013) reduced energy consumption by 25% by 2016. The Radisson Blu Hotel Zürich (a member of the Carlson



Rezidor) implemented the “water light #superbreakfast”, which used 22% less water than the provision of the previous breakfasts (Radisson Blu, 2015). The environmental objective of the Marriott group is to reduce the usage of water and energy by 20% by 2020 (Marriott International, 2016).

The competitive advantage of being a green hotel opens the market to environmentally conscious consumers. The image of the hotel speaks to the reputation that the hotel has within the community in which it operates (Graci & Dodds, 2008:259-260; Leonard & Dlamini, 2015:3). The implementation of environmentally friendly practices has seen the enthusiasm and morale of employees increase within green businesses. Green teams have been initialised within these businesses (Graci & Dodds, 2008:260-261) whilst consumers demonstrate a demand for greening within hotel properties.

Consumers’ behaviour towards greening

Consumers are moving towards a more environmentally friendly approach to business and lifestyle, which indicates a consumer demand (Jiang & Kim, 2014:309). In a survey conducted by Millar (2010:3) it was stated in 2009 that 66% of hotel consumers were aware of hotel greening efforts in comparison to 57% in 2008. Millar (2010:3) stated that 85% of leisure tourists were considered to be environmentally conscious consumers. Additional research indicated that 43 million American tourists had a concern for the environment (Vora, 2007). Further research showed that 34% of business travellers now search for environmentally friendly hotels, while 28% of participants would be willing to pay 10% more to stay in a hotel with environmentally friendly facilities (Clausing, 2008).

However, some consumers believe it to be the responsibility of governments or large companies to encourage and enforce greening activities. A study done by Jiang and Kim (2014:310) investigated the perceived value that greening has for consumers when staying at hotels in relation to the benefits of green versus the costs of greening. Perceived value can be described, based on three factors, namely; functionality (price and quality), emotional and social value. The results showed that the concern of the consumer for environmental issues and their personal daily commitment to be green would influence how they perceive the benefit of a green hotel compared to the cost of a green hotel (Jiang & Kim, 2014:323).

The Costa Rican Certification for Sustainable Tourism (CST) aimed to investigate the participation of accommodation-based operations in the programme. The operations that took part would achieve differentiation advantages that would produce increases in prices and achieve higher room rates. The study concluded that the implementation of environmentally friendly practices increased the competitive advantage, which led to gains in higher price offerings and turnover. The Government monitored the participants in the CST programme. The results highlighted an important role that government, and the associated industry, played in the degree to which accommodation-based operations implemented environmentally friendly practices (Graci & Dodds, 2008:257). According to Turek et al. (2015:15), there are other aspects to be considered when designing a sustainability programme, which resulted in sustainable designs, environmental safety, waste control, greening initiatives and the use of renewable energy sources. All these aspects have an impact on the decisions made by hospitality operators to ensure that consumer expectations are met and where possible exceeded.

There are certain perceived benefits to greening a hotel for consumers. Functional benefits relate to the quality and cost, whereas the use of non-toxic chemicals has a decreased effect on the environment, and the consumers have a safer and healthier experience at the hotel. Emotional benefits add to a consumer’s positive feeling towards environmentally friendly practices and facilities in helping the environment. The social benefits are linked to consumers believing that staying at a



green hotel will leave a good impression with other consumers (Jiang & Kim, 2014:312–313). Millar (2010:4) emphasised that there was limited research on a consumer's preference towards greening in hotels and the importance of environmentally friendly facilities. Consumers on Penang Island, Malaysia, are aware of the environmental programmes; however, it was not a deciding factor in the choice of a hotel as they could accept rooms that have environmentally friendly facilities and features (Millar, 2010:7).

Millar (2010:13) focused on factors like 'recycling policy, shampoo amenities, controlled lighting, energy light bulbs, towel policy, linen policy and green certification'. Refillable shampoo dispensers and green certification were the highest rated preferred factors. Towel and linen policies, with the use of key cards to control the power to the hotel room, were a high preference as guests preferred control over the room (Millar, 2010:21-23). Cometa (2012:55) conducted a comparable study, which yielded similar results, showing consumers were likely to support towel-reuse procedures, recycling programmes and energy efficient lighting. Authors noted the willingness of consumers to choose hotels, which have environmentally friendly facilities and practices in place (Martínez, et al., 2019:6; Mbasera, et al., 2018:10; Millar (2010:27). Berezan, Millar and Raab (2012:11) added that customers placed a high value on recycling policies, purchasing green products and having water-saving units in public areas, therefore, generally demanding greener facilities.

The hospitality industry faces challenges in implementing the greening trend. There are costs and different structures within the industry that prevent individual hotels from implementing environmental practices. Companies' non-willingness to share information regarding the best ways to green hotels is a challenge. The lack of involvement by governments in the development of environmentally friendly policies and procedures for the tourism industry is seen as a hindrance (Graci & Dodds, 2008:254). Canadian-based research has shown that one-third of participants would change to a hotel that followed the greening trend over their regular hotel choice. Another study showed that 75% of participants believed it to be important that hotels have environmentally friendly practices and procedures in place (Graci & Dodds, 2008:261). Concerning consumer demand, hotel businesses have also shown a market demand for greening in conference facilities and events (Graci & Dodds, 2008:262).

Generation Y consumers and environmentally friendly consciousness

The Generation Y population is also known as 'Millennials' and 'Echo Boomers' (Valentine & Powers, 2013:598). Generation Y has the largest proportion (26%) of the total adult population in the United States (Valentine & Powers, 2013:597; Kubickova et al., 2015:2) and is expected to 'represent 50% of all travellers by 2025' (Turek et al., 2015:5). The Generation Y consumers are a technology-focused population group, each seeking their own identity, own way of communicating and a need for tourism experiences. The growth in the average income level of consumers has resulted in an increase in spending power among mid-level income earners. This indicates an increase in financial health, and in turn being able to spend more on the tourism and hospitality industry (Turek et al., 2015:2-3). Generation Y consumers' disposable income is predicted to increase steadily over the coming years as they enter the job market (Kubickova et al., 2015:3). This will be especially evident in Generation Y consumers who have post-secondary school qualifications, which lead to increased opportunities in a range of careers and better salaries.

The emerging technological revolution has caused many changes within the tourism and hospitality industry, providing new options to Generation Y consumers. These new options include the ease of access to information, booking for hotels online and the use of smart technology in completing business. They are more resourceful in finding and reviewing holiday destinations. This generation is



looking for a better link between their daily lives and hospitality services. The lifestyle desired by Generation Y consumers has also led to the importance of better health and lifestyle choices (Harris et al., 2011:25). Along with the growth of the industry, there is a need for sustainable practices and procedures, which are balanced with economic performance and guest satisfaction. With natural environments as one of the reasons to travel to a specific destination, the consumer is pursuing more sustainable greening and consumption behaviour (Turek et al., 2015:5,14).

Generation X is more ambitious and optimistic than Generation Y, which is known for its technological literacy, influenced by the internet and individualistic focus (Kubickova et al., 2015:3; Valentine & Powers, 2013:597). Generation Y has a volunteer mind-set and is socially conscious. These consumers pay attention to the message of business and brands that are unique, creating a sense of self-expression. Generation Y is described as more concerned about the quality of the work environment and is more responsible when compared to previous generations (Valentine & Powers, 2013:598). Generation Y is a population group that seeks to meet personal goals and perform work that contributes to society and improve the world around them. However, Generation Y is also known not to have professional boundaries, requires immediate feedback and has low critical thinking skills, whilst focusing on achieving success but spending less time on duties and tasks (Kubickova et al., 2015:3). As the next group of income earners, this could lead to a potential increase in hotel occupancy, especially if the hotel has environmentally friendly facilities and practices (Harris et al., 2011:25-26). Kubickova et al. (2015:24) concluded that hotels that have environmentally friendly practices would ensure the interest and retention of Generation Y customers whilst maintaining a competitive advantage.

Greening facilities and practices in the hospitality sector

The growth within the tourism and hospitality sector has seen the need for implementing environmentally friendly practices, procedures and policies to reduce the negative impact on the environment (Chan, 2008:542; Leonard & Dlamini, 2015:2-3). Penny (2007:287) and Martinez et al. (2019:6) indicated that those hotels that implement environmentally friendly facilities, which lead to a green environment for employees and guests, would in turn improve the image of the company. Climate change has affected the fauna and flora of a wide range of regions, influencing the attractiveness of regions. South Africa has strong environmental legislation; however, the execution continues to be a struggle (Leonard & Dlamini, 2015:2-3). There is a lack of literature on how South Africans speak to implementing and encouraging greening practices and procedures within hotels because of the financial implications and lack of government encouragement. Mbasera et al. (2016:3; 2018:2) agrees with Leonard and Dlamini (2015:8) that there is little effort from the South African Government in terms of policies and the enforcement to ensure greening procedures are implemented in hotel operations.

Hotel operations incorporate procedures to reduce the impact the hotel facilities have on the environment, initiating strategies to use energy efficient light bulbs, reusing sink and shower water (called grey water) for gardening purposes, fitting low flow water fixtures and re-use programmes (Chan, 2008:553; Millar, 2010:3-4). Various South African hotel groups abide by local, regional and national laws and have implemented a variety of environmental strategies; to reduce energy, carbon emissions, and the impact of water and waste on the environment (Mbasera et al., 2016:4). Guests are informed of programmes through signage, written documents and employees promoting the greening practices and programmes (IHG, 2016:742). The hotel groups (as listed below) indicated that employee training is essential for the maintenance of the various greening programmes. The employees need to understand why these are important, and then they will suggest and initiate other programmes. See Table 1 for ideas and strategies implemented by the following organisations:



- Hospitality Property Fund (HPF) (Irmiler, 2015:70);
- Green Engage in the Intercontinental Hotel Group (IHG, 2016:742);
- Responsible Business Program, Carlson Rezidor (The Rezidor Hotel Group, 2013);
- Hotel environmental plan, Marriott with Protea Hotels (Marriott International, 2016);
- Thabo Eco Hotel (2016:5), and
- Tsogo Sun (n.d 1-2).

Table 1. Implemented environmental strategies in the hospitality sector.

<p>Efficient water usage – Strategies to reduce water usage in guest rooms, laundry and other hotel facilities</p> <ul style="list-style-type: none"> • New ways to recycle grey water; • Hot water calorifiers set to only work when heat capacity is reached and when hot water is at its highest demand; • Guests are made aware of ways to reduce the laundering of towels and linen; • Shower and tap heads installed with aerators to allow for a high flow rate but at a lower rate of usage; • Showers replaced baths in the new or renovated hotels; • The laundry facilities centralised with housekeeping staff being trained on correct loading of machines; • Garden irrigation performed during the cooler times of a day to reduce evaporation; • The flora in the gardens changed to water-wise and indigenous plants, and the removal of alien species; • Water usage-controlled by water meters to detect leaks and high usage areas; • Double-plumbing systems, dual flush toilets, tap aerators and low flow showerheads installed; • A rain harvesting system as an alternative water supply system; • Necessary regular preventative maintenance necessary to ensure efficiency and no leaks; and • Use jugs of water instead of bottled mineral water especially in conference areas.
<p>Efficient electricity usage</p> <ul style="list-style-type: none"> • Air conditioners have set timers to control when air conditioning is switched on in public areas; • Water-heat is reduced through all systems being insulated; • Key-card activated switches installed in refurbished rooms to allow energy to be consumed only during room occupancy; • Air discharged from heat pumps is recycled into the chill rooms, where possible; • Motion sensors are used in administration offices; boardrooms and conference centres for air-conditioning and lights; • Pool blankets used for swimming pools; • On-site laundry operating hours matched to low electricity demand periods; • Energy-saving light bulbs used along with regular maintenance and checks; • Under-floor and towel heating only used on cold days and coldest months of winter; • All hotel rooms fitted with solar geysers, with insulated pipes; • Energy usage reduced by lighting being dimmed during breaks of conferencing; and • The air conditioning temperature controlled (22°C comfort zone) if the temperature is too cold the air conditioning is turned off and customers are encouraged to wear warmer clothes during colder periods.
<p>Waste reduction</p> <ul style="list-style-type: none"> • Waste from the hotels separated to allow for recycling; and • Develop action plans to handle; store and dispose of waste.
<p>Other ideas and ways to green facilities</p> <ul style="list-style-type: none"> • Chemicals used in the laundry and kitchen areas are all bio-degradable and environmentally friendly; • Avoid the use of harmful chemical pesticides and find environmentally friendly alternatives, like using parasitoids, environmentally friendly insect detergent sprays and keeping a litter-free environment; • Grease traps to ensure grease does not enter water systems; • Salt chlorinators used to reduce the use of chlorine-based products; • Guest supplies are bio-degradable; • Reduce air pollution by complying with smoking legislation and effective filtration of kitchen and laundry extraction; • Air filters regularly cleaned and maintained;



- In-house training conducted to encourage employees to recycle;
- A non-profit corporation, which collects and recycles unwanted soap and shampoo products to give to underprivileged people;
- Partnering with suppliers to ensure energy is conserved and waste reduced;
- Recycled key cards, pens or biodegradable laundry bags are used;
- Encouraged to buy organically sourced foods, to plant herb gardens, recycle cooking oil and use sustainable seafood suppliers;
- When planning the construction of the hotel, the typography considered first before construction;
- The design of the rooms incorporates the colours of the rocks and tree bark to lower visual impact and regulate temperatures.
- Local sustainable materials used in the rooms along with permaculture principles to support energy and water saving practices
- Hotels should maintain indigenous landscaping principles, removing municipal watering irrigation to improve the biodiversity of the area.
- The clippings from pruning shrubs and trees used as mulch for the gardens.
- Electronic formats for documents are the preferred method for sending documents to reduce paper usage.
- The pens in conferencing facilities replaced with pencils as the greener approach.
- Recycling methods include the placement of paper recycling bins in the conference facilities, and printing & branding suppliers using biodegradable and compostable packaging
- Hotels get products from the surrounding areas and supporting local entrepreneurs within South Africa, for instance, micro herbs, wheatgrass and nuts from the Hartebeespoort area or coffee beans are sourced from a local coffee farm and cheeses from the Midlands in Kwa-Zulu Natal
- Wine lists can be tailored with carbon-neutral, local and organic wines requested by the customers.
- Meat-free Monday initiative is followed by Sandton Sun, in the sense that meal breaks on Mondays offer more vegetarian options and shy away from red meat options

The hospitality industry is considered a major contributor to the negative impacts on the environment. By initiating green practices, the hotel properties have been seen in a positive light (Mbasera et al., 2016:5). Hotels are more focused on environmentally friendly facilities and practices to improve the property, business image and guest experiences. The benefits have gone beyond a social responsibility mindset towards cost savings, customer retention and an increased competitive advantage. Mbasera, et al. (2016:5-6) stress that the consumers and hospitality management need training on the impacts that tourism and hospitality activities have on the environment and the initiatives that could levitate this negative impact. Generation Y consumers are understood to have an environmentally conscious mindset, expressing a demand for greening within business practices. Smith and Nichols (2015:40) note that the Generation Y are more confident and value team members because of tolerance experienced in a diverse society. They have grown up using the technology available to them so are able to access information and trending news relatively quickly. Consumers have taken an interest in the environment in which they conduct business and live (Mbasera, et al., 2016:6).

Methodology

The secondary data has highlighted a gap in knowledge, which allows for the development of a main research question, with investigative questions to create the questionnaire. Primary resource gathering can be defined as gathering information for a specific research purpose from an appropriate survey method (Sekaran & Bougie, 2013:13; Smith & Album, 2012:35). The research design for this investigation was a descriptive study that included the quantitative collection and analysis of data (Sekaran & Bougie, 2013:97). The survey design method was used in the form of quantitative research that sought to study trends, attitudes and behaviours within a large population. The survey design is further defined as a cross-sectional survey (Bhattacharjee, 2012:9; Creswell, 2012:377). Questionnaires have a fixed number of questions which have been constructed within closely defined



boundaries (Sekaran & Bougie; 2013: 147). Questionnaires were used because they are cost effective and can be administrated and collected timeously especially for the time allocated in for this research project. The cover page attached was to ensure clarity and confidentiality in what is required from each participant.

Sampling

The sample is a subgroup of the population that the researcher intends to research for generalising about the population (Creswell, 2012:142). The key advantage of using a sample is that the data can be gathered faster and timeously at a reduced cost (Smith & Album, 2012:92-93). Non-probability sampling was utilised, with a convenient sample, being Generation Y students from the University of Johannesburg. Their ages ranged from 21 to 35 years. The sample size was 100 valid questionnaires. The students were selected because of the convenience, availability, cost and time constraints. The personally administered questionnaires totalled 110, however, ten (10) of the questionnaires were invalid and unreliable for analysis, therefore the final sample included 100 usable questionnaires.

Data Collection

Questionnaires are considered a primary source of data collection in quantitative studies (Sekaran & Bougie, 2013:147). The initial questionnaire was pre-tested with a pilot study of nine respondents. The pilot study (Creswell, 2012:390; Van Teijlingen & Hundley, 2001:289) yielded minor changes and a review of the language, grammar and sentence structure. Once permission was granted from the various lecturers, the questionnaires were handed out to students at the University of Johannesburg. This approach allowed the researcher to distribute, clarify any uncertainty that the student may have and allow for easier and timeous return of questionnaires (Bhattacharjee, 2012:74).

Data analysis

For this research project, nominal and ordinal scales were used (Kumar, 2011:81). The nominal scale allows for the arrangement of respondents based on mutually exclusive attributes. There is no difference in the order in which the subgroups of the questions are written as the subgroup bears no relationship to each other. The ordinal scale has the same characteristics of a nominal scale, however, it ranks the subgroups in a certain order. 'Subgroups are arranged in order of magnitude of the characteristic'. (Bhattacharjee, 2012: 45-46; Kumar, 2011:83).

Questions from Sections C and D made use of the Likert rating scale for assessment when each statement had equivalent attitudinal value (Bhattacharjee, 2012:47; Kumar, 2011:159). The data was then coded using the nominal and ordinal scales. Coding is the procedure of changing data into a numerical format (Bhattacharjee, 2012:119). SPSS 23 was used for the coding of the data. The data was then analysed using a frequency distribution. The results were presented using texts and graphs (Kumar, 2011: 258, 259).

Ethical considerations

To complete the questionnaire, the study required participants to be over 21 years old because they needed to fall within the Generation Y bounds. Participants had an equal opportunity to be included, participation was voluntary and responses kept anonymous. The questions required the participants' opinions and were not emotionally invasive by nature. Although the researcher was present to answer



any questions or clarify terms, there were no incentives offered to participants and all ethical aspects were cleared by the university ethics committee.

Results

Following the data capturing and analysis, the following results were obtained.

The socio-demographic profile of the sampled respondents, who participated in the study, were predominantly female (63%). The majority of the respondents were between 21 and 25 years old (70%). The majority were black (58%). The highest number of hotel visits was once in a year (28%). (See Table 2)

Table 2. A socio-demographic profile of respondents.

	<i>n</i>	%
Gender		
Female	63	63
Male	37	37
Total	100	100
Age Group		
21-25 years	70	70
26-30 years	16	16
31-35 years	14	14
TOTAL	100	100
Ethnicity		
Black	58	58
Coloured	10	10
Indian	7	7
White	25	25
TOTAL	100	100
No of Hotel Visits		
3 time or more	19	19
Twice a year	15	15
Once a year	28	28
Once every 2 years	19	19
Once every 3 years	9	9
Never	10	10
TOTAL	100	100

The results depicted below were in response to the awareness and perceived impact greening will have on Generation Y. The respondents had to choose between a moderately priced non-green hotel and a more expensive green hotel. The results indicate 41 respondents selected a green hotel at R950.00 per night (41%) and 37% (n=37) chose a non-green hotel at R850.00 per night, with 22 respondents (22%) indicating that it made no difference, which hotel would be selected (See Figure 2).

The question depicted in Figure 3 is a similar question to Figure 2 but the price was excluded from the question. The results indicate that 73% (n=73) chose a green hotel; five (5) respondents chose a non-green hotel (5%) and 22 (22%) said it made no difference (See Figure 3). Interestingly, the majority (73%) chose a green hotel when the price was not considered, however, there was a 32% reduction to 41% when the price was included. (See Figures 2 and 3).

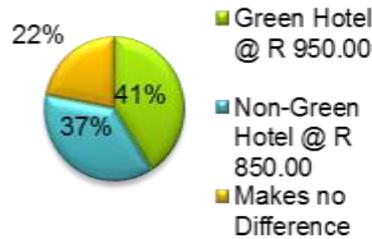


Figure 2. Price difference for a green hotel

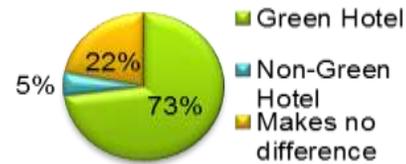


Figure 3. Choice difference for a green hotel

Personal attitude towards greening statements

When investigating a personal attitude towards greening behaviours, the following results were noted. Interestingly, Figure 4 shows 53% (n=53) of respondents support greening practices in their lifestyle, which corresponds with the 53% that switch off lights in rooms, not in use. Respondents (35%) rarely recycle paper and plastic products, and only 31% consider buying energy efficient products. The varying responses are due to the level of commitment required by the respondents towards the greening practice. Recycling requires more dedication than buying environmentally friendly products and switching off lights. It emerged that if the student was required to purchase electricity for their place of residence, their awareness was heightened but this was not investigated specifically in this study. Note the similar percentages of 'rarely' and 'often' of respondents preferred choice of environmentally friendly businesses, indicating a mixed attitude towards this. (See Figure 4)

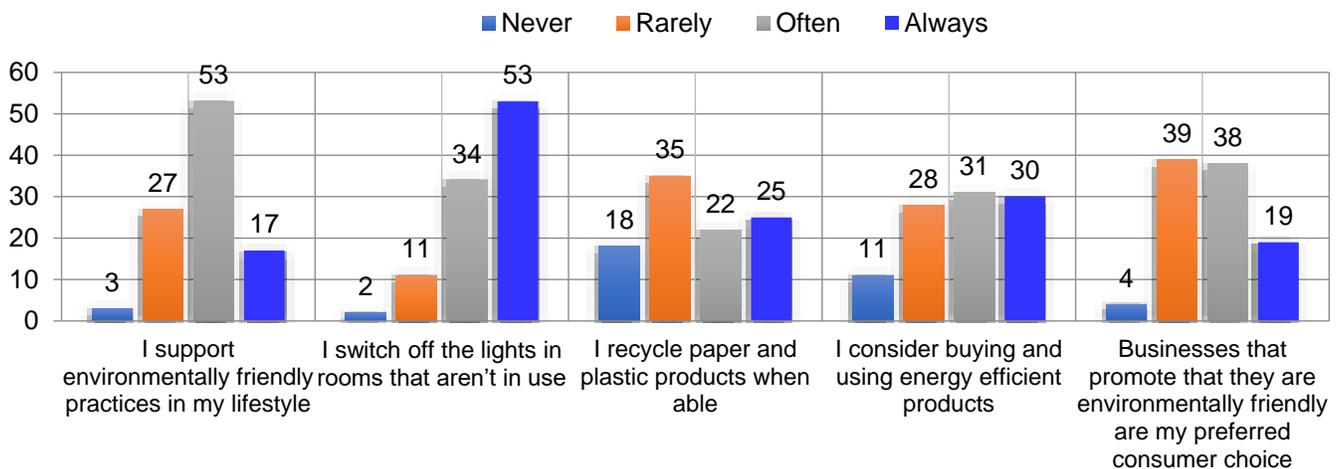


Figure 4. Shows the respondent's personal attitude towards greening statements

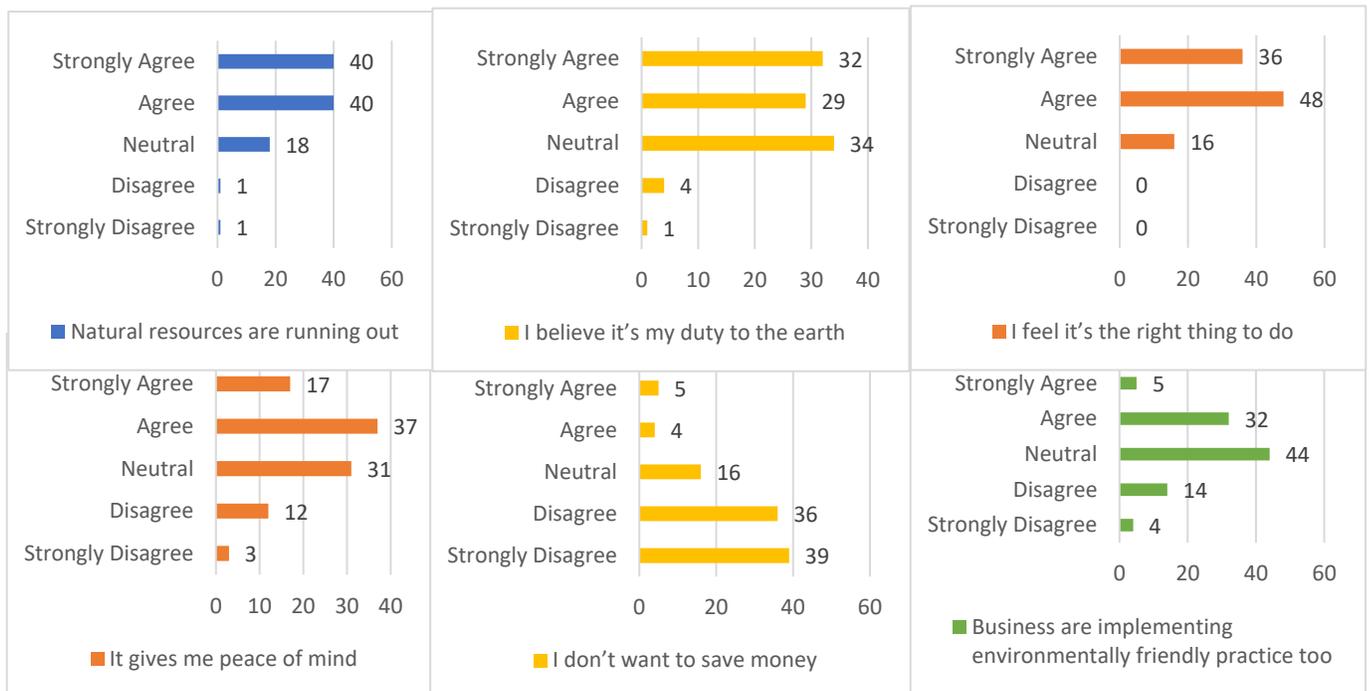


Figure 5. The personal reasons for environmental consciousness

Reasons for environmental consciousness

The following questions were asked to enquire about personal reasons for environmental consciousness. The results indicated that 80% of the respondents agree that natural resources are running out (40% strongly agree and 40% agree), with 84% indicating that it is the right thing to do (36% strongly agree and 48% agree). Interesting to note the spread of responses from strongly agree to neutral for 'believing it's my duty to the earth' and 'giving peace of mind' showing that respondents are not fully confident or committed to these reasons to be environmentally conscious. The negatively worded question of not wanting to save money shows a high disagreement (75%). This relates to respondents not willing to lose money and not willing to spend more money (see Figures 2 and 5) and when questioned on the willingness to pay for a green hotel (See Figures 2 and 3). The response to 'Businesses implementing environmentally friendly practices' shows that 44% of respondents were neutral, indicating that consumers are choosing a greener lifestyle. This could also indicate a student's naivety to possible environmental business practices and may highlight to organizations a necessity to disseminate information regarding their activities. Figure 5 shows respondents' agreements regarding reasons for environmental consciousness.

The next section discusses the responses of Generation Y students' towards the greening facilities and practices within hotels, as well as their willingness to stay in either a green hotel or non-green hotel, with the price being a factor. The section has three subsections with various questions making use of the Likert rating scale. The respondents agreed with energy efficient and water saving facilities and practices. Then lastly, respondents' opinions of other greening facilities used within the hospitality industry.

Energy greening facilities and practices

Concerning energy saving initiatives, the results showed that solar panels (78%) and energy saving key cards (81%) were the most agreed upon energy saving facilities in hotels. Lights were dimmed in hallways or turned off yielded a 64% agreement by respondents. Wearing climate-appropriate clothing to reduce the use of cooling and heating facilities, with the highest response being neutral (43%). This result shows respondents hesitate to the greening practice when it requires a personal action (See Figure 6).

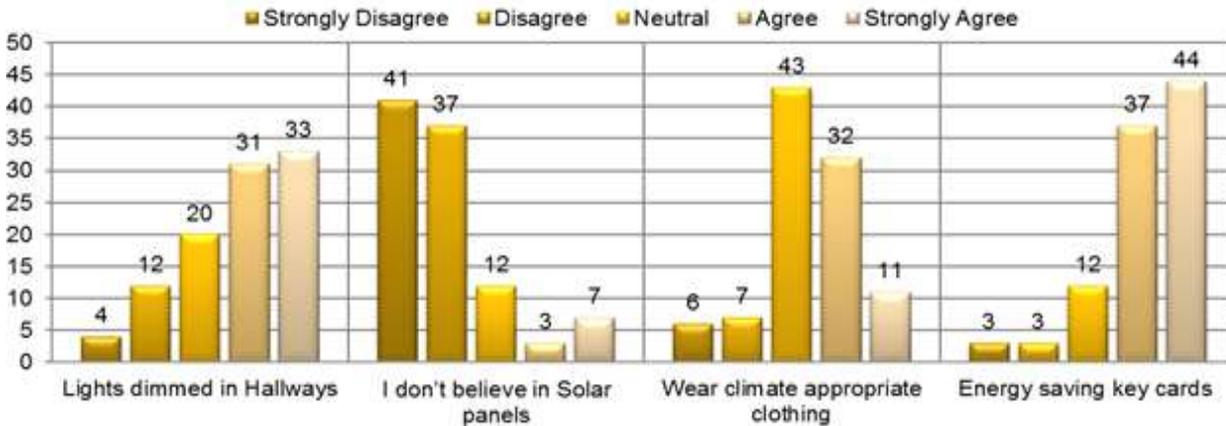


Figure 6. Energy greening facilities and practices

Water greening facilities and practices

Concerning water saving practices, the majority (79%) agreed with the use of greywater, followed by installing low flow showerheads (59%). The responses from disagreeing to strongly agree for the use of tap water over bottled water and replacing towels each day show a similar pattern to wearing the appropriate clothing. (See Figure 7). Other responses concerning the greening facilities show that there was general agreement with four of the five statements. The most agreed upon statements were being to turnoff engines of transport vehicles while offloading (77%) and using biodegradable amenities (71%). The response to the change of linen each day was neutral as the highest (28%), shows a similar trend when respondents have to make personal choices. (See Figure 8).

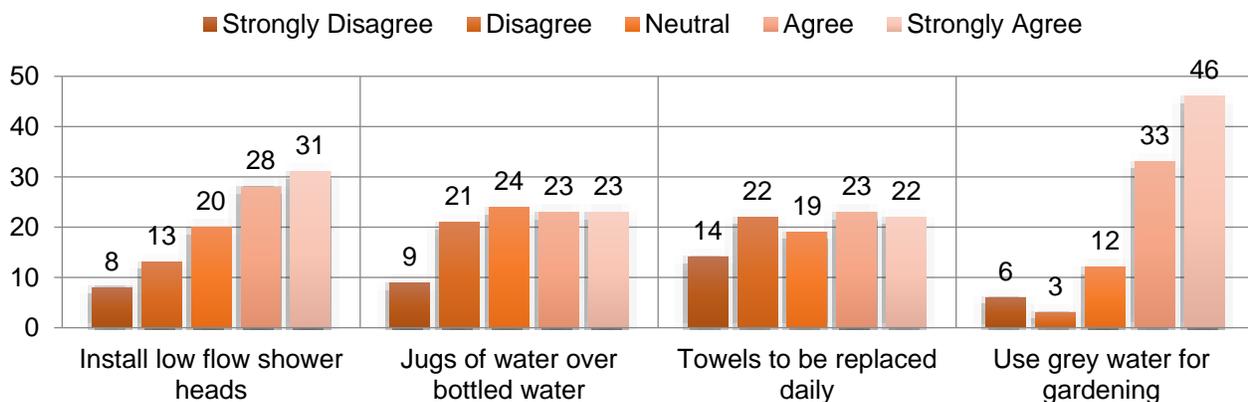


Figure 7. Water greening facilities and practices

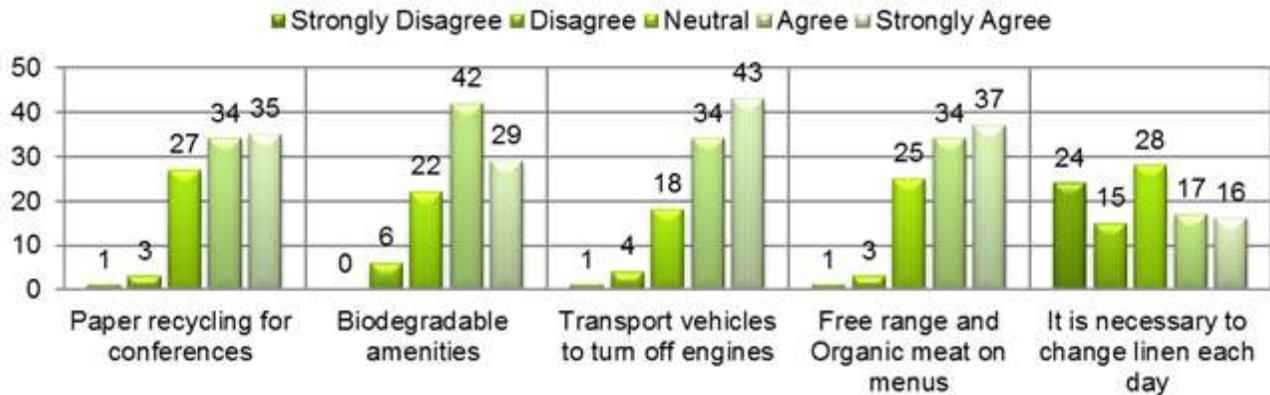


Figure 8. Other greening facilities and practice

Figure 8 shows the respondents' agreement towards energy greening facilities and practices. The bar graph of a sample size of 100 shows that:

Choosing to have paper recycling bins in conference facilities According to the responses, 4% disagree but the majority (69%) agree, whilst 27% remained neutral. This could indicate ignorance of conferencing and how green can be practiced in this area.

Having bio-degradable amenities: Of the respondents, six (6%) disagree, 22 respondents (22%) are neutral and 71 respondents (71%) agreed to have these amenities. It was considered afterward that perhaps the respondents did not understand the word amenities as it is industry jargon.

To turn off transport vehicles' engines while off-loading: Respondents agree (77%) with the practice to turn off the vehicle engine when off-loading, 18 (18%) remained neutral and five (5%) disagree.

Free-range and organic meat and poultry on menus: According to the respondents four (4%) disagree, 25 respondents (25%) are neutral and 71 (71%) respondents agree to the use of free range and organic meat and poultry.

To save water and energy is it necessary to change linen each day. According to the respondents, 39 (39%) disagree, 28 (28%) were neutral and 33 respondents (33%) agree to the practice of changing linen daily within the hotel operation.

At the end of the questionnaire, the options for selecting a green or non-green hotel was asked again. The responses as anticipated, were different to when this question was first asked (See Figures 2 and 3). Figure 9 indicates the choice made by the sample group to the price of a non-green hotel and a green hotel. The pie chart shows 41 of the sample selected a green hotel at R850.00 (45%), 51 chose a non-green hotel at R600.00 (55%), which gives a total of 92 respondents (8 responses were not answered). Note in Figure 10, the responses show the difference in the choice of a green/ non-green hotel when the price is not a factor. Figure 10, the pie chart, shows 83 chose a green hotel (83%), six chose a non-green hotel (6%), with 6 responses missing. The difference in percentage may be due to students not having a high monthly income.

■ Non-Green Hotel @ R600
■ Green Hotel @ R850

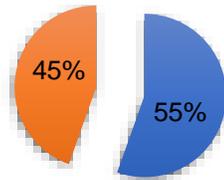


Figure 9. Indicates Generation Y's choice for a priced green hotel

■ No reponse ■ Green Hotel ■ Non-green hotel

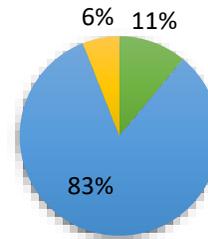


Figure 10. Indicates Generation Y's choice for a green hotel

Discussion

The research aimed to investigate the perceived impact that Generation Y consumers would have towards the environmentally friendly practices and facilities within green hotels as well as their personal practices. Generation Y being the next large generation of income earners, what impact would this generation have on the greening effort within the hospitality industry?

Clausing's (2008) research indicated that 28% of participants were willing to pay 10% more for staying in a green hotel. When respondents were asked about staying in a green hotel and paying extra, 22% of respondents remained undecided. Therefore, the change in respondents' decisions was based on price. Of the results gathered, 41% of respondents indicated that they would pay extra for green hotels, however, if there was not a price difference, 73% indicated they would stay in a green hotel. This shows that 32% of respondents are price-conscious when choosing a green hotel. Graci and Dodds (2008:261) mentioned that one-third of consumers would change to a hotel with greening practices and facilities that are similar to the research conducted. However, the percentage is greater, being 73%, roughly two-thirds of the sample. Cometa (2012:55) and Lee et al. (2010: 910) remarked that consumers are more willing to stay in a hotel with greening practices. This can be used as a competitive advantage within the hotel industry.

Comparing the results of the question of choice and price difference of a green/non-green hotel to the similar question asked at the beginning of the questionnaire, the results show very little difference, by excluding the 'makes no difference' responses in the first question. The question specific to choice of a green or non-green hotel shows no difference in percentage. The question, which asked about the price, shows the inverse but the percentages are similar. Therefore, the respondents' choice of green or non-green hotels did not change based on answering the questionnaire. Generation Y's hotel choice will be positively affected if the hotel had environmentally friendly facilities and practices in place. Generation Y consumers have shown a strong agreement towards a hotel having these facilities. Caution must be taken when dealing with practices that require personal commitment, as consumers are unsure of these methods for greening.

The research done by Millar (2010:3) indicated that 85% of leisure guests are environmentally conscious consumers, often practicing greening and always in their personal lives. This leans towards



the trend gaining importance amongst Generation Y consumers however, not the majority percentage as indicated in Millar's (2010:3) research. Valentine and Powers (2013:598) and Turek et al. (2015:2-3), described how Generation Y consumers are mindful of the impact of their decisions on their lifestyle and consumption behaviours. The personal attitude towards greening statements represents this lifestyle consciousness trend, which is starting to develop, as respondents answered positively (often and always) to performing the activities and decisions rather than to an answer of never. The results show that Generation Y is becoming aware of the environmentally friendly trend, although not the majority of the respondents. This can also be due to the poor exposure to greening practices as many may still live in student accommodation and family homes, with little exposure to a work environment with a high priority to greening. There is a gap between what consumers see and what is promoted about the greening trend, resulting in a lack of personal action and even will.

From the answers, the majority of respondents did not indicate to always practice greening in their lifestyles; this can have a link to why respondents do not wish to pay more for a green hotel. Research conducted by Jiang and Kim (2014:310) and Cometa (2012:54) showed a correlation between consumers' daily practicing of greening related to the value and cost that consumers associate with green hotels. This research, however, contradicts the aforementioned research.

Jiang and Kim (2014:312) indicated that consumers have an emotional benefit to practices helping the environment. The results from the respondents show a similar focus with the majority agreeing to perform greening due to 'it being the right thing to do' (84%) and 'my duty to the earth' (61%). Valentine and Powers (2013:598) described Generation Y as being more concerned about the environment and more responsible when compared to previous generations, which is evident in the respondents' answers; 'agreeing to reasons for being environmentally conscious'. The respondents' overall response to the environmentally friendly facilities and practices shows a preference for these within the hotels. The results from the sample show an 85% agreement to having energy saving key cards and solar panels in a hotel, which is the highest percentage for the energy category. This is in agreement with the studies by Millar (2010:21-23) and Cometa (2012:55) where both agree to the use of energy saving key cards. This confirms that Generation Y consumers are thinking consciously about their greening practices within their own lifestyle and purchasing decisions.

It is interesting to note the high neutral response (43%) to wearing appropriate clothing for the climate. Questions about using jugs of water and replacing towels daily showed a wide spread of answers with no definite response. The question associated with replacing linen daily was asked again under 'other'. The result showed a small difference in range (13%) of answers. Millar's (2010:21) research showed that consumers preferred a towel-reuse policy to be in place, which is contrary to the results of this research. These specific responses lead to the idea that Generation Y students are hesitant to commit to the responsibility of greening when it interferes with personal comfort.

Respondents showed the highest agreement of 79% to using greywater for the gardens. The installation of low-flow showerheads was positively answered with respondents agreeing to the facility. The top four questions asked under the 'other' subsection, indicated high support for the greening practices and facilities to be implemented. Based on the general trend of Generation Y respondents agreeing to green facilities and practices in this sample, it is in agreement with the research done by Turek et al. (2015:14), which is that there is a demand for greening behaviour. The resulting demand is in agreement with industry implementation of greening programmes, facilities, practices and action plans (IHG, 2016: 742; Irmiler, 2015: 70; The Rezidor Hotel Group, 2013; Marriott International, 2016). Research conducted by Millar (2010:4) noted that consumers in Malaysia do not see environmentally friendly facilities and practices as a deciding factor in their hotel selection. Whereas 93% of respondents indicated that they would rather stay in a green hotel than a non-green



hotel. Graci and Dodds (2008: 261–262) stated that 75% of their researched participants believe a hotel should practice greening.

In conclusion, Generation Y consumers no longer only think about their own well-being but are conscious of the environment. The greening trend in awareness and positive belief has increased amongst the consumers. The results of the study show a general upward trend towards greening practices and procedures in the lifestyle of Generation Y respondents. The results do not show the majority of respondents wanting environmentally friendly practices and facilities; however, there is a definite indication of the trend of consciousness starting to emerge in Generation Y students. One of the processes towards a future global business within the tourism and hospitality industry is with Generation Y consumers showing a positive interest in the greening trend.

Limitations

The research project did have some limitations, which need to be discussed. The first of the limitations being the difficulty in choosing which aspects of greening practices, policies and environmentally friendly facilities to choose for the questionnaire adapted from Millar (2010: 27-28). The reason it was limited was due to a large number of greening practices, procedures, policies and environmentally friendly facilities that are currently used, as discussed in the literature. Some of the preferred aspects not discussed are the use of organic linen; extensive recycling programmes and reclaimed water systems, which certain hotel consumers would like to see. The consideration that Generation Y respondents do not have high incomes as yet, was also considered when selecting the greening aspects. Caution must be exercised when generalising these results in comparison to other population groups as the study was conducted with only university students in an urban setting. It must also be said that the study researched the perceived intentions and beliefs of consumers toward greening practices and procedures and not actual behaviours.

Recommendations for further study

Future research projects could include an investigation of how hotel employees see greening; as a barrier or a hindrance, or as a problem or a benefit for a hotel property. It would be useful to ascertain if current workers in the hospitality and tourism industry have seen the additional benefits of greening mentioned above and beyond the corporate social responsibility benefit within the South Africa hospitality and tourism industry.

References

- Bärlund, K. (2004). Sustainable development - concept and action. United Nations Economic Commission for Europe. [online] Available from: http://www.unece.org/oes/nutshell/2004-2005/focus_sustainable_development.html. [Accessed 7 May 2016].
- Berezan, O., Millar, M. & Raab, C. (2012). Sustainable Hotel Practices and Guest Satisfaction Levels. *International Journal of Hospitality & Tourism Administration*, 15, 11.
- Bhattacharjee, A. (2012). Social science research: principles, methods, and practices. University of South Florida. Available from: http://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=1002&context=oa_textbooks. [Accessed 16 October 2016].
- Calicchio, P. (2019). PwC Hotels outlook: 2019–2023: Future resilience. South Africa - Nigeria - Mauritius - Kenya - Tanzania, 9 Ed. Available: www.pwc.co.za/hospitalityand.



- Chan, W. (2008) Environmental measures for hotels' environmental management systems ISO 14001. *International Journal of Contemporary Hospitality Management*, 21(5), 542-560.
- Clausing, J. (2008) Survey: Boomers more likely to go green in business travel, Travel Weekly. Available from: <http://www.travelweekly.com/Travel-News/Corporate-Travel/Survey-Boomers-more-likely-to-go-green-in-business-travel>. [Accessed 08 July 2016].
- Cometa, L. (2012). *Consumer beliefs about green hotels*. (Unpublished Master of Science thesis, Kent State University College and Graduate School of Education, Health and Human Services).
- Cresswell, J. (2012). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. 4th Ed. London: SAGE Publications, Inc.
- Eirini, T. & Antonia, D. (2014). Do beliefs affect customers' intentions to choose green hotels? *International Journal on Strategic Innovative Marketing*, 01, 51-52.
- Graci, S. & Dodds, R. (2008). Why Go Green? The Business Case for Environmental Commitment in the Canadian Hotel Industry. *Anatolia: An International Journal of Tourism and Hospitality Research*, 19(2), 252 – 258.
- Harris, K., Stiles, J. & Durocher, J. (2011). A Preliminary Evaluation of the Millennial Shopping Experience: Preferences and Plateaus. *Florida International University*, 29(1), 24 – 47.
- IHG. (2016). IHG Green Engage™ system. Available from: <http://www.ihgplc.com/index.asp?pageid=742>. [Accessed 4 July 2016].
- Irmiler, K. (2015). Hospitality Property Fund Integrated Annual report for the year ended 30 June 2015. pp.70 – 72.
- Jiang, Y. & Kim, Y. (2014) Developing multi-dimensional green value: Extending Social Exchange Theory to explore customers' purchase intention in green hotels – evidence from Korea. *International Journal of Contemporary Hospitality Management*, 27(2), 309 – 323.
- Karavasilis, G., Nerantzaki, D., Pantelidis, P., Paschaloudis, D. & Vrana, V. (2015). What Generation Y in Greece thinks about Green Hotels. *World Journal of Entrepreneurship, Management and Sustainable Development*, 11(4), 268 – 276.
- Kheiry, B. & Nakhaei, A. (2012). Consumers' Green purchase decision: An examination of environmental beliefs, environmental literacy and demographics. *International Journal of Marketing and Technology*, 2(9), 171 – 183.
- Kubickova, M., Nusair, K., Parsa, H. & Hu, H. (2015). Does Green Hotel Image Influence Guests' Behaviour: The Case of Generation Y. *Journal of Services Research*, 14(2), 10 - 11; 24.
- Kumar, R. (2011). *Research Methodology: a step-by-step guide for beginners*. SAGE Publications Ltd: London. Available from: http://www.sociology.kpi.ua/wp-content/uploads/2014/06/Ranjit_Kumar-Research_Methodology_A_Step-by-Step_G.pdf. [Accessed 16 October 2016].
- Lee, J., Hsu, L., Han, H. & Kim, Y. (2010). Understanding how consumers view green hotels: how a hotel's green image can influence behavioural intentions. *Journal of Sustainable Tourism*, 18(7):901 - 914.
- Leonard, L. & Dlamini, T. (2015). Greening within the tourism and hospitality sectors: the case of Protea Hotel, Wanderers, Johannesburg. *African Journal of Hospitality Tourism and Leisure*, 4(1), 2 – 8.



Marriott International. (2016). Environment: Our Environment Goals. Available from: <http://www.marriott.com/corporate-social-responsibility/corporate-environmental-responsibility.mi>. [Accessed 07 July 2016].

Martínez, P., Herrero, Á. & Gómes-López, R. (2019). Corporate images and Customer behavioural intentions in an environmentally certified context: promoting environmental sustainability in the hospitality industry. *Corporate Social Responsibility and Environment Management*, 1-10. Available <https://doi.org/10.1002/csr.1754>.

Martínez-Martínez, A., Cegarra Navarro, J. G., García-Pérez, A. & Moreno-Ponce, A. (2019). Environmental knowledge strategy: driving success of the hospitality industry. *Management Research Review*, 42(6), 662-680, Emerald Publishing Limited. 2040-8269. DOI 10.1108/MRR-02-2018-0091.

Mbasera, M., Du Plessis, E., Saayman, M. & Kruger, M. (2016). 'Environmentally friendly practices in hotels', *Acta Commercii*, 16(1), a362. <http://dx.doi.org/10.4102/ac.v16i1.362>

Mbasera, M., Du Plessis, E., Saayman, M. & Kruger, M. (2018). Determining the impact of green management policies on hotel performance: A manager's perspective. *African Journal of Hospitality, Tourism and Leisure*, 7(3).

McGraw-Hill Construction. (2013). World Green Building trends: business Benefits Driving New and Retrofit Market Opportunities in Over 60 Countries (pdf). Bedford: McGraw Hill Construction. Pp. 5. Available from: http://www.worldgbc.org/files/8613/6295/6420/World_Green_Building_Trends_SmartMarket_Report_2013.pdf. [Accessed 2 May 2016].

Micioni, W. (2003). Going green in the hospitality industry. UNLV University Libraries: University of Nevada, 5, 3-6.

Millar, M. (2010). Travelers' Most Preferred Green Attributes for a Hotel Room, University of San Francisco – Hospitality Management. pp 3 – 29. Available from: <http://repository.usfca.edu/cgi/viewcontent.cgi?article=1010&context=hosp>. [Accessed 4 July 2016].

Penny, W.Y.K. (2007). The use of environmental management as a facilities management tool in the Macao hotel sector. *Journal of Facilities*, 25(7/8), 286 - 295.

Radisson Blu. (2015). Water- Light # Superbreakfast. Available from: http://media.corporate-ir.net/media_files/IROL/20/205430/Reports/RB_Breakfast_water_footprint_flyer.pdf. [Accessed 4 July 2016].

Sekaran, U. & Bougi, R. (2013). *Research Methods for Business*. United Kingdom: John Wiley & Sons Ltd.

Smith, M. & Albaum, G. S. (2012). *Basic Marketing Research: Volume 1: Handbook for Research Professionals*. Provo, Utah, USA: Qualtrics Labs Inc. Available from: <http://cloudfront.qualtrics.com/q1/wp-content/uploads/2012/02/Basic-Marketing-Research.pdf>. [Accessed 9 May 2016].

Smith, T. J. & Nichols, T. (2015). Understanding the Millennial Generation. *Journal of Business Diversity*, 15(1), 36-47.

Thaba Eco Hotel. (2016). Thaba Eco Hotel Eco Brochure (pdf). Available from: <http://thabahotel.co.za/wp-content/uploads/2014/11/ECO.pdf>. [Accessed 8 July 2016].

The Rezidor Hotel Group. (2013). Think Planet commitments. Available from: <http://www.rezidor.com/phoenix.zhtml?c=205430&p=respillar1>. [Accessed 4 July 2016].



Tsogo Sun. (n.d.). Green Initiatives at the Sandton Sun: You can make a difference (pdf). pp. 1-5. Available from: <http://www.eventgreening.co.za/wp-content/uploads/2011/04/Green-Conferencing.pdf>. [Accessed 22 March 2016].

Turek, E., Gebbie, G., Chan, K. & Durand, S. (2015). Horwath HTL. Tourism Megatrends. pp 5. Available from: <http://horwathhtl.com/files/2015/12/Tourism-Mega-Trends2.pdf>. [Accessed 28 April 2016].

Van Teijlingen, E. & Hundley, V. (2001). The importance of conducting and reporting pilot studies: the example of the Scottish Births Survey. *Journal of Advanced Nursing*, 34, 289-295.

Valentine, D. & Powers, T. (2013) Generation Y values and lifestyle segments: *Journal of Consumer Marketing*, 30(7): 597 – 598. Available from: <http://www.emeraldinsight.com/doi/pdfplus/10.1108/JCM-07-2013-0650>. [Accessed 6 July 2016].

Vora, S. (2007). Business travellers go green. Available from: <http://www.nbcnews.com/id/19417697/#.V31Turh96Uk>. [Accessed 6 July 2016].