

Summer 2011

## The Green Movement in Hotels: Are College Students on Board?

Amy Walker

Follow this and additional works at: <https://digitalscholarship.unlv.edu/thesesdissertations>



Part of the [Educational Assessment, Evaluation, and Research Commons](#), [Hospitality Administration and Management Commons](#), and the [Sustainability Commons](#)

---

### Repository Citation

Walker, Amy, "The Green Movement in Hotels: Are College Students on Board?" (2011). *UNLV Theses, Dissertations, Professional Papers, and Capstones*. 1105.  
<http://dx.doi.org/10.34917/2493080>

This Professional Paper is protected by copyright and/or related rights. It has been brought to you by Digital Scholarship@UNLV with permission from the rights-holder(s). You are free to use this Professional Paper in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s) directly, unless additional rights are indicated by a Creative Commons license in the record and/or on the work itself.

This Professional Paper has been accepted for inclusion in UNLV Theses, Dissertations, Professional Papers, and Capstones by an authorized administrator of Digital Scholarship@UNLV. For more information, please contact [digitalscholarship@unlv.edu](mailto:digitalscholarship@unlv.edu).

The Green Movement in Hotels: are College Students on Board?

By

Amy Walker

Bachelor of Science in Hotel, Restaurant, and Tourism Management  
University of South Carolina  
May 2007

A professional paper submitted in partial fulfillment  
of the requirements for the

**Master of Science in Hotel Administration**  
**William F. Harrah College of Hotel Administration**

**Graduate College**  
**University of Nevada, Las Vegas**  
**August 2011**

**Table of Contents**

PART ONE:	
Introduction.....	3
Purpose.....	3
Justification.....	4
Constraints.....	4
Glossary.....	5
PART TWO:	
Literature Review.....	6
Corporate Social Responsibility .....	6
The Green Movement.....	6
The Green Movement in the Hotel Industry .....	7
Hotel Consumers and the Green Movement .....	18
Cultural Aspects in the Green Movement and Hotels.....	20
Hypothesizes .....	27
PART THREE:	
Methodology.....	27
Ethics.....	27
Sampling Frame .....	28
Survey .....	28
Pilot Test.....	31
Data Collection .....	31
Results.....	32
Survey.....	32
Discussion/Conclusions .....	39
Limited Discussion.....	39
Conclusions .....	40
Professional Implications/ Future Research .....	41
Professional Implications .....	41
Future Research .....	41
REFERENCES.....	43
APPENDIX:	
Appendix A.....	47
Appendix B.....	48

## **Part One**

### **Introduction**

The green movement has been spreading in the hospitality industry, with the rise of environmentally friendly practices. Hotels are now using better lighting and recyclable materials, having programs for recycling and encouraging guests to reuse towels, instead of having them changed every day. Many hotels are striving for L.E.E.D. certification or comparable certifications that designate an environmental friendly status. Hotels are implementing these programs based on public opinion, but are consumers utilizing these programs, or just being politically correct when stating they are a factor when choosing hotels?

Studies by Kasim (2004) and Choi, Parsa, Sigala, and Putrevu (2009) have looked at environmentally friendly practices in hotels, but their studies have had conflicting results. Kasim (2004) found that tourists in Malaysia did not consider environmentally friendly practices when choosing a hotel. Choi et al. (2009) found that environmentally friendly practices were a factor when choosing a hotel and that consumers would be willing to pay more for environmentally friendly practices. These two conflicting studies bring about the need for this study.

### **Purpose**

The purpose of this study is to see if environmentally friendly practices are a factor for college students when selecting a hotel. Another purpose of this study is to see if students would be willing to spend more for hotels who offer these environmentally friendly practices.

### **Justifications**

This study will give operators and marketers an idea as to what Generation Y consumers are interested in when selecting a hotel and whether environmentally friendly options are worthwhile. Environmentally friendly options can be costly to initiate so a consumer's perspective on whether or not they are important and willing to pay for them would be an important factor in the decision making process. This study may also give insight into which environmentally friendly items or services are important to consumers. If an environmentally friendly item or service is more likely to draw in a consumer to a property, marketers should capitalize on these items or services.

### **Constraints**

The survey method also comes with limitations and biases. While a survey is the best method for this study, it does have issues with validity, social desirability bias, and acquiescence bias. Validity issues would arise from whether or not the questions in the survey can measure what they are supposed to measure. Acquiescence bias is another limitation for this study. Respondents may have a tendency to agree on all the questions instead of selecting different answers. If a respondent is unfamiliar with environmentally friendly items they may choose to say yes since they want to agree with the new topic or idea.

Social desirability bias is a limitation for this study. Respondents may want to be more environmentally friendly, since it is such a hotel topic in the United States. The want to be more environmentally friendly may cause them to incorrectly state their answers to be more environmentally friendly than they actually are. Not many people

would want to say they don't care about the environment, it would not be very politically correct.

Another limitation to this study would be the price conscious or sensitive consumer. Since this study was conducted with students, some of which may not have a substantial income, they may be more likely to only care about price. If price is the main concern for a consumer, environmentally friendly options would not be considered when selecting a hotel. This price sensitive consumer would obviously not be willing to pay more for environmentally friendly options. With the current economic conditions around the world the price sensitive consumer segment is growing.

### **Glossary**

Environmentally Friendly Practices (or Environmentally Responsible Practices) - According to Choi et al (2009) environmental strategies and practices by a company, and their performance to support this notion.

## **Part Two**

### **Literature Review**

#### **Corporate Social Responsibility**

Aspects of corporate social responsibility (CSR) that relate to the environment have two prongs the philanthropic and ethical. According to Carroll (1991) ethical responsibilities encompass emerging values or norms society expects businesses to meet, even though those values or norms portray a higher standard than what the law requires. Environmental standards expected by society, and especially environmental activists, are usually higher than the legal requirements, while the government may push for companies to do more, they often do not require it.

Carroll (1991) states that philanthropy, in regards to CSR, covers those business actions that are a response to society's expectations that corporations be good corporate citizens. The difference between philanthropy and ethical responsibilities is the lack of moral or ethical obligation for philanthropy. A company that does not engage in philanthropy is not unethical. Society expects for a business to engage in philanthropy but it is technically voluntary.

From CSR the concept of business environmental and social responsibility has developed, which according to Kasim (2006) is what the responsibilities of business are in respect to environmental and social issues pertinent to the business' operations. This term was developed because it narrowed down the broader term CSR.

#### **The Green Movement**

Since the 1980s, when the concept of sustainable development became prevalent as part of the World Conservation Strategy, it has become a concern for people all over

the world. Brundtland (1987) believed that sustainable development is based on moral and ethical principles. In 1992 a sustainable development actional program was suggested in Earth Summit as “Agenda 21” (United Nations, 1992). In 2002, The World Summit on Sustainable Development conference was held discuss the progress of the actional program. In the past, resources have been exhausted, species have become extinct, and changes in our natural environment, have resulted in people today changing their perspectives about the environment. A new trend is developing that involves investing in the environment and focusing on personal values as opposed to economic efficiency (Aburdene, 2005).

**The green movement in the hotel industry.**

Until the 1980s, the tourism industry had a slack attitude towards environmental protection, despite its rise as an important developmental industry (McLaren, 1998). Concerns for the negative impacts and social impacts of tourism, have indicated a challenge for the key players in the industry to be responsive towards the principles and practices of sustainable development. Sustainable tourism has been acknowledged as the new direction for tourism (Dimitros & Ladkin, 1999). Moore (1996) suggests that sustainable tourism development has to take in to consideration the protection of natural resources for the future as well as meet the current needs of tourism and locals in the region.

As a key sector in tourism, hotels do their part in the green movement, because they have several key environmental and social impacts, such as: energy consumption; water consumption; waste production; waste water management; chemical use and atmospheric contamination; purchasing/procurement; and local community initiatives

(Kirk, 1995). To begin working on environmental and social responsibility these key areas should be addressed (Kasim, 2006).

Kasim (2006) completed a case study involving business environmental and social responsibilities of the tourism industry, specifically hotels. He studied the aforementioned key impacts. Hotels use large quantities of water, and as more hotels are built, it takes more of the local water resources. Resorts, especially, use more water with swimming pools, golf courses, spas and bathrooms. Also, hotels need to help improve in water quality, particularly in developing nations, by incorporating water quality measures in their operations (Kasim, 2006).

In another significant area of hotels' environmental impact, energy, the need for conserving is clear, because of the high electricity needs for lighting, cooking, and heat/air-conditioning, which leads to pressure on local resources and increases cost. Energy conservation is not only good for the environment, but it is also cost efficient for hotels. Solid waste is also another key environmental impact for hotels. The financial gains of managing solid waste may make recycling a profitable initiative for hotels. Reducing and reusing materials can cut down costs and recycling could become a side revenue earning initiative (Kasim, 2006).

Kasim (2006) was able to conclude from his case study that the hotel industry has a direct relationship with the physical and social environments. The slow response from the industry towards integrating environmentally responsible practices and social considerations into hotel development indicates the need for a collaborative effort from the entire hotel industry, as well as government policymakers, to prioritize environmental and social issues in their daily operations.

Leslie (2001) did a case study looking at benchmarking in the United Kingdom for environmental standards in the hospitality industry. Benchmarking is very common practice in the industry. It sets the standards for the industry, so that hotels and other members of the industry know what levels they need to be achieving. With the varying environmental standards around the world, setting benchmarks for environmental responsible practices would be a starting place for the industry.

The most frequently used process for assessing the environmental performance of a business in the United Kingdom is called environmental auditing, which according to Goodall (1994) is a tool used by management that involves a methodical, unbiased, periodic evaluation of the processes in place to protect the environment. Environmental auditing is self-regulating because it is not required that this approach be utilized (Leslie, 2001).

In the United Kingdom there are three major environmental management techniques that can be utilized by companies: BS 7750; Eco-Management and Audit Scheme (EMAS); and ISO 14001. These are good for large companies, they are much harder to put in place in small companies due to the scope and potential costs to implement them. There are other initiatives that can be put into place to green hotel companies in the United Kingdom, those are: The International Hotels Environment Initiative (IHEI); Green Globe; the Green Audit Kit, and in Scotland, the Green Business Scheme (Leslie, 2001).

From his case study of a small tourism area in Lake Cumbria, England, Leslie (2001), concluded progress in this area to address environmental performance is very slow, despite the growing range of initiatives in this area. Findings from the study show

that awareness is not the key issue, but the attitudes and values of the owners or managers along with the combined knowledge and understanding of environmental issues and related practices are the key factors enacting environmentally responsible practices.

Leslie (2001) suggests that the encouragement of these businesses to enact environmentally responsible practices is needed, but legislation and other set standards to continue the greening of hotels and other tourism businesses is largely absent.

Blanco and Muller (2009) did a study to look at voluntary environmental initiatives in tourism. They did research to determine what was being done. Voluntary environmental initiatives included a diverse set of efforts that can be classified into three broad categories: unilateral commitments; negotiated agreements, and certified voluntary programs (Khanna, 2001). All of these are considered voluntary initiatives because their promoters are not required by law to launch initiatives (WTO, 2002).

It was concluded by Blanco and Muller (2009) that it would benefit the tourism destinations to have sound institutions for managing natural resources, because natural resources will be overused if there is no external intervention governing behaviors. They also found that there are both monetary and non-monetary incentives for stakeholders to develop voluntary environmental initiatives. Blanco and Muller's (2009) main conclusion was that there should be regulations to define the legal framework establishing minimum standards, and voluntary initiatives can complement these standards by fostering environmental improvements beyond the regulations.

O'Neill and Alonso (2009) did a study on how small businesses in the hospitality industry approach the issue of environmental sustainability. They looked at the factors of awareness, motivation, practice, and barriers to practice. The results of their study

showed a high level of awareness relative to the importance of environmental sustainability, but there is a low level of understanding as to the best way to implement sustainability into operations. O'Neill and Alonso's (2009) findings support Tilley's (1999) earlier findings that the environmental attitudes of small businesses do not correlate with their environmental behaviors. Operators of small businesses seem to be content with only following the environmental practice of recycling. Only a couple of cases in O'Neill and Alonso's (2009) study suggest businesses are adhering to the practice of energy use reduction and alternative energy forms. None of these small business operators used energy efficient appliances or saw any benefits to marketing efforts surrounding going green to its customers.

O'Neill and Alonso (2009) concluded that operators are aware of the issues, but they need to exercise more leadership and drive to initiate the environmental practices. The implementation of environmentally friendly practices in the small hospitality business community is a much more difficult task than for the larger hospitality companies and other industries due to a large number of factors, which influence small businesses' external and internal strategic and operational practices. They also concluded that if small hospitality businesses can implement and expand on smaller scale environmental practices then they are likely to succeed in showing consumers their environmental commitment, giving them an image that could turn into higher revenues and profits (O'Neill & Alonso, 2009).

Tzschentke, Kirk, and Lynch (2008) did a study on the barriers to action for small, green tourism firms in Scotland. They focused on attitudinal, financial and operational barriers. They found that inadequate infrastructure along with a lack of

support and interest from a local and central government were the major restraints on pursuing environmentally friendly actions. This article concluded that there is a need to contest the skepticism that surrounds environmental products and practices, so that proactive operators may be able to successfully implement environmental practices without worrying about a negative reactions or dissatisfaction from guests. Therein lies the difficulty, both the operators and the public need to be educated on environmental practices in an attempt to increase knowledge and awareness and dismiss misconceptions, which in the long term will expand the understanding of environmental responsible practices. This should help contribute to raise the demand for green products and services, making going green a financially viable option for businesses. Thus easing the fear of operators and making the environmental practices more acceptable (Tzschentke et al. 2008).

In the United States lodging industry, Green and Sustainable (2008) has compiled what is being done for green movement. In a February 2008 study by *Lodging Hospitality*, hotel owners found the following as benefits of green design and operation (multiple responses were allowed):

- lower operating costs: 83%,
- reduced impact on environment: 80%,
- meeting expectations of hotel guests: 56%,
- ability to differentiate in marketing: 54%,
- ease of resale: 32%,
- higher return on investment: 29%,
- higher occupancy: 22%, and

- higher rates: 20%.

According to a nationwide poll by BBMG in September 2007, 74% of consumers always or sometimes patronize companies that demonstrate green practices and 17% always do (Green and sustainable, 2008).

For the past two decades, hotels have been implementing practices to reduce electricity use to lower their energy bills. The hospitality industry spends \$3.7 billion a year on energy, which accounts for 60% to 70% of utility costs. To reduce energy hotels have been switching incandescent light bulbs for fluorescent bulbs, installing motion sensors to reduce power use, replacing windows or adding insulation to cut heat and cooling costs. These practices used to be done to reduce costs, but now can also be seen as green practices (Green and sustainable, 2008).

Hotels are also addressing waste management and water conservation issues. Waste generation can be as high as 30 pounds per room in hotels. Recycling programs are being implemented at hotels to keep 80% of the waste from landfills. According to the California Green Lodging Program, hotels typically use 218 gallons of water per day per occupied room. To reduce water and sewer bills, hotels have installed water-efficient fixtures and have reduced their bills by 25% to 30% (Green and sustainable, 2008).

A survey by Starwood Hotels & Resorts in 2007, found that 59% of frequent guests leave their green practices at home, using more water and energy than they would when in their own homes. Guest behavior, in many instances, is rooted in the belief that hotels are ambivalent about conservation practices. J.D. Power Associates did the 2008 North American Hotel Guest Satisfaction Study and reported that 73% of people would participate in green initiatives at a hotel in which they were staying, however 29% were

unaware if hotels they stay at had green programs. The most visible sustainability program at a hotel is the cards in the rooms that encourage guests to reuse linens and towels. The Green Hotels Association has distributed these cards since 1993 (Green and sustainable, 2008).

Leadership in Energy and Environmental Design (LEED) is a program of the U.S. Green Building council that provides certification that a building is environmentally responsible and offers a healthy interior for occupants. LEED is a nationally accepted benchmark for the design, construction and operation of green buildings. Recently there has been a surge in interest among hotel companies in the United States to earn LEED certification for properties under development. As of June 2007, there were only four hotels in the U.S. that had received LEED certification. In June 2008, around 200 hotels were seeking LEED certification (Green and sustainable, 2008).

The Hilton Vancouver in Washington was one of the first hotels to become LEED certified. The hotel opened in 2005 and is a model of green design. The hotel operates on 30% less energy than is required by local codes and it offers alternative fueling stations for electronic cars. Administrative offices also have sensors that turn off the lights when the offices are not in use. Local landscaping was used on the property that can handle the dry summer seasons. Storm water from the building is directed to underground dry wells to filter the pollutants from the room and around the building. Many of the building materials were purchased from local vendors and the building was assembled with recycled steel and recyclable brick. In addition, 75% of the construction waste from the hotel was recycled (Green and sustainable, 2008).

Notable hotel companies and properties green programs are:

- Aramark Parks and Resorts offer EcoRooms, which are rooms that are scent-free and chemical-free, use energy efficient lighting, utilize recycled paper products and recycling receptacles, and have water efficient sinks, showers and toilets. These measures have resulted in water savings of 20% to 40%, energy savings of 30% to 70%, and waste savings of 10%.
- Fairmont Hotels and Resorts, which started its environmental initiatives in the early 1990s, has energy management and recycling at all of its 55 properties. They also changed their design standards to take LEED certification standards into consideration for hotel renovations and new hotel planning.
- Kimpton Hotels and Restaurants environmentally friendly practices include using non-toxic cleaning agents, in-room recycling bins, and compact fluorescent lighting. A recent Kimpton survey found that 16% of guests chose their properties because of their environmental practices.
- Marriott International joined the U.S. Environmental Protection Agency's Energy Star program in 2001. Marriott replaced 450,000 light bulbs with fluorescent lighting, which saved 65% on average lighting costs. Also, Marriott replaced 4,500 outdoor signs with LED and fiber optic technology, which led to a 40% reduction in the energy use of outdoor advertising.
- The Orchard Garden Hotel in San Francisco opened in 2006 and every room uses a door key card controlled system. When guests leave their room and remove the key card from its slot, a mechanism shuts off most the electrical power in the room. The hotel was built according to LEED standards, with building materials

such as, recycled steel and cement made from fly ash (Green and sustainable, 2008).

The American Hotel & Lodging Association (AH&LA) has four green initiatives in progress right now, they are:

- A green task force has been established to develop a sustainability initiative for existing properties and new construction projects;
- They are working with the U.S. Green Building Council on a hotel based LEED certification process;
- AH&LA is reviewing more than a dozen existing green programs, which include: Green Seal, Green Globe, Green Key and other state certification programs, components of these programs will be the basis for a multi-tier green lodging certification program;
- Working with the meeting planner community to create environmental guidelines for the meeting industry (Green and sustainable, 2008).

The AH&LA also lists minimum guidelines that all businesses can use to go green, these are guidelines that all properties can follow:

- Form an environmental committee in charge of developing a green plan.
- Monitor use of electric, gas, water and waste usage information to manage environmental performance.
- Immediately replace incandescent light bulbs with compact fluorescent light bulbs.

(AH&LA, 2009).

Graci and Dodds (2008) did a case study looking at the Canadian hotel industry which focused upon the benefits of going green and the future trends in the green movement. They found that when an organization increases its level of environmental commitment a competitive advantage exists. The benefits a hotel can have from going green are cost savings, improved competitive advantage, employee loyalty, regulatory compliance, being leaders in the industry, and managing risk and social responsibility.

According to Graci and Dodds (2008) in order for the hotel industry to move forward in becoming more environmentally responsible there are barriers to overcome: lack of communication, legislative issues, business culture, and the need for cohesive information. There is a need for better communication and the sharing of best practices among the industry. These bigger, more mature organizations need to share their knowledge with the smaller organizations. Legislation needs to have a top down approach for environmental issues. In Canada, the jurisdiction for environmental legislation is shared between the federal and provincial governments. Unfortunately, this creates confusion and overlap. In Canada, the only environmental practices taking place are very basic. Practices such as sheet changing and towel reuse programs are often part of a multinational corporation's policies. Hotel operators need to shift their mentality and business culture to realize the practical, easy and cost effective practices that can reduce environmental impacts and see an attainable return on investment (Graci and Dodds, 2008).

Graci and Dodds (2008) concluded that the hotel industry is currently supply driven, instead of demand led in terms of environmental practices. The demand for green hotels by the general public is growing; individual hotels must see these results to be

convinced to partake in environmental practices. Being environmentally committed ensures competitiveness and increased organizational performance that will lead to improved reputation, lower costs and strategic alignment with possible future changes. Through the hotel industry working collectively and sharing environmental best practices great things can be achieved. The hotel industry must move towards action to preserve and protect the environment, as well as ensure future viability and growth (Graci & Dodds, 2008).

### **Hotel Consumers and the Green Movement**

Goldstein, Cialdini, and Griskevicius (2008) did a study looking at social norms and how they motivate environmental conservation in hotels. More and more travelers are being urged to reuse their towels to help save energy reducing the amount of detergent related pollutants released into the environment. Most hotels place cards in the bathrooms of their rooms to get consumers to reuse their towels. Many hotels are doing this not only for the benefits to the environment, but also for the economic benefits in reduced costs for labor, water, energy, and detergent.

Over 75% of Americans think of themselves as environmentalists (Mackoy, Calantone, & Droge, 1995), so it is not surprising that hotels are looking at environmental practices as tactics of importance in operations today. Guests are told via the card in the room that reusing their towels will conserve natural resources, help save the environment from further depletion, disruption and corruption. Left off of these cards is the possibly very persuasive and potentially powerful motivator of prosocial behavior, social norms (Goldstein et al., 2008).

Two experiments were done by Goldstein et al. (2008), the first experiment was to investigate whether using a saying that expresses the descriptive norm for participation in linen reuse programs would be more effective at encouraging linen reuse than the current industry standard. To do this study they created their own towel reuse cards and recorded the extent to which each of the two says caused guests to participate in a hotel's conservation study. In the second experiment they looked at whether the norm of the hotel guests' immediate surroundings, which they call the provincial norm, motivated conformity to a norm to a greater extent than the norm of guests' less immediate surroundings. Specifically it looked at whether a guest is more likely to do something if guests that have previously stayed in the room, have done it before or what guests in the entire hotel have done. This study was done over 80 days in 190 rooms in a mid-sized, mid-priced hotel in the southwest region of the United States (Goldstein et al., 2008).

The results from these two experiments showed the power of descriptive norms to motivate others to participate in environmentally friendly practices. Furthermore the superiority of the descriptive norm messages relative to the industry standard suggests that making a meaningful social identity prominent without giving descriptive normative information is not the best way. Experiment two confirmed that individuals are more likely to be persuaded by descriptive norms when the location in which those norms are formed is comparable to the location those individuals are currently occupying. Previous research has never addressed this concept. Participants that were told that the majority of people who had stayed in the same room had taken part in the towel reuse program were most likely to participate in the program themselves (Goldstein et al., 2008).

Another significant result from this research is that the greater motivational power of the provincial group norms over global group norms does not seem to be motivated by the amount in which people consider the group identities to be personally important. In the second experiment, participants were more likely to follow the descriptive norms of a group of individuals with whom they had shared similar locations, not social identities. Participation rates were actually highest in the reference group that participants felt was the least personally meaningful to them, but that was most proximate physically. This suggests that meaningfulness of one's social identity is only one of several determinants of consumers' private adherence to social norms (Goldstein et al., 2008).

The implications from this study are that marketers, policy makers and managers need to use normative messages when trying to encourage consumers to participate in environmental responsible practices. Instead of using the messages that participating is saving the environment, normative messages that show that they aren't alone in partaking in these activities will influence guests to take part (Goldstein et al., 2008).

### **Cultural aspects in the green movement and hotels.**

Tsai and Tsai (2008) did a study of Taiwanese consumers and their views of environmental responsible practices in hotels. Surveys were sent out to sample across the country, the primary research was done in major public transport stations across Taiwan and random consumers staying in international five star hotels. The questionnaire had twelve topics, six topics for non-human-centric principles, three topics for dangers to the balance of nature and three topics for the limits to the growth of nature.

The results from this study showed that in terms of environmentally friendly consumption behaviors related to environmentally friendly hotels, Taiwanese consumers

are mostly willing to support the environmental protection and resource recycling policies of hotels. However, in all actuality, their answers on the questionnaires were significantly lower than their verbal support, even in their willingness to choose green hotels when travelling. For Taiwanese consumers, when selecting a hotel, whether the hotel promotes environmental conservation is not a main concern. The Taiwanese have high green ideals but a small portion actually act on these ideals. Taiwanese consumers actually exhibit opposite green consumption behaviors, because most people have higher expectations for the quality of service offered by hotels, and don't want to do the things they do in their everyday lives. This phenomenon concurs with previous findings of Yeh, Tsai and Huan (2003). The current gap between consumer willingness to participate and action is the main issue for hotels in Taiwan who want to pursue sustainable green consumption (Tsai & Tsai, 2008).

An important finding of this study was that in questionnaire items for willingness to choose green hotels for lodging, the average scores were low, but for the item, "if hotels disseminate their environmental experiences and result to the mass public, I will be more inclined to prefer this hotel," the results were comparatively higher. Hotels need to strengthen their messages to consumers so that consumers understand the environmental actions taking place in hotels and the consumers can participate. It would also increase corporate profile and reputation of these hotels. Another recommendation for green hotels would be to selectively price their services, because green hotels are seen as a relatively expensive product (Tsai & Tsai, 2008).

Kang and Moscardo (2006) looked at the cross-cultural differences in tourist attitudes towards eco-tourism among Korean, British and Australian tourists. The study consisted of comparing responses of fourteen statements designed to measure attitude among responsible tourist behaviors. The study had two surveys, one conducted in Korea and one in Australia. The Korean survey was conducted with visitors with eco-tourism or nature based tour companies and as well as visitors to two national parks. The Australian survey was conducted at different transit and transportation nodes in the Cairns region of Australia, and they sampled both Australian and British tourists.

Results from this study showed that the Koreans were the most prone to agree to all the statements and had a considerably higher total score than the other two groups. These results suggest that the Koreans' culture has the highest levels of environmental concerns. Korean respondents in this survey also reported higher levels of environmental friendly behavior and expressed a higher level of concern for future generations. The British respondents' answers were focused on rule following, so if there was a rule or law, British travelers would be more inclined to favor green practices. The Australian respondents gave the lowest agreement ratings to all of the statements so they have a lower level of concern about responsible tourist behaviors when compared with Koreans and British travelers. The Australian sample did have the highest results with questions pertaining to social rules, similar to the British sample (Kang & Moscardo, 2006).

Based on these results, to appeal to Korean tourists, eco-tourism destinations and tour operators should focus on pre-trip information detailing information on the environmental aspects of the destination. For Australian and British travelers, eco-

tourism destinations should clearly present information on social and conservation rules (Kang & Moscardo, 2006).

Kang and Moscardo (2006) concluded that national culture is an important factor for what influences attitudes towards responsible tourist behavior. Knowing the differences in attitudes between the different cultures will help marketers to target the correct advertising for their destinations.

The observed findings on the market benefits of socio-environmentally friendly behavior of hotels are few and conflicting. Gustin and Weaver's survey (1996) analyzed consumers' intentions to stay in green hotels found that 73% of respondents considered themselves to be environmentally responsible consumers, and 71% indicated a willingness to stay in a hotel that offered environmental responsible practices. Despite the willingness to stay in green hotels, consumers are not willing to pay a premium price for it. Forty-nine percent of respondents expected the price of a green hotel room to not change, while only 27% expected the price to increase (Gustin & Weaver, 1996). Conflicting data from the Travel Industry Association of America claims that 83% of travelers are inclined to support green travel companies and are willing to pay more for green products and services (Kasim, 2004).

Kasim (2004) wanted to find out what the consumer demand is for green hotels in a developing country like Malaysia. His study looked to narrow the gap of information by doing an empirical study of tourists' demands for socio-environmentally responsible hotels in Penang, Malaysia. Specifically, the study will look at the important factors tourists use when selecting a hotel, and tourists' preference, attitude, interest and opinion in relation to green and socially responsible hotels. The main purpose was to gain a better

picture on the possibility of consumer pressure as a driver for Business Environmental and Social Responsibility in Penang's hotel industry.

The study found that survey respondents showed the most concern about environmental initiatives and socially responsible initiatives taken by hotels. Those attributes were: promotion of local culture (73.8%), promotion of local cuisine (71.6%), the knowledge of hotel staff (72%), the happiness of hotel staff (73.3%), the friendliness of staff (78.4%) and well paid staff (68%). From these results it is clear that these elements are the most relevant to the quality of a tourist's stay. Respondents were not as favorable about the following attributes: promotion of local conservation effort (55.6%), certification obtained by hotel (52.4%), and environmental image of hotel (55.1%). These less favorable attributes are not as relevant to a tourist's quality of stay, so they were not perceived as important as the other attributes (Kasim, 2004).

Concerns about environmental issues were further examined by a tourist's willingness to switch to other hotels in a situation where the hotels they stay in have poor environmental or labor rights records. To both of these situations, Kasim (2004) found that tourists were hesitant to switch hotels, only 28% of guests would be willing to switch hotels if the hotel they were staying in had a poor environmental record. Respondents were either undecided (38%) or would never pay more (37%) for environmentally responsible hotels (Kasim, 2004).

From this study it can be concluded that many consumers still select a hotel based on price, quality of service and a hotel's physical attractiveness rather than socio-environmental behaviors. Tourists seem to understand the importance of many environmental and social issues, but this knowledge does not equal action. Tourists are

not willing to pick more environmentally friendly hotels or products over the quality of their stay. Consumers are also not willing to pay extra for green attributes or switch hotels for a more environmentally responsible hotel (Kasim, 2004).

Conversely, Choi et al. (2009) collected data from students from Greece and the United States to study consumer attitudes and behavior intentions towards environmentally responsible practices (ERP) of hotels. Specifically the study looked at the impact of ERP on consumers' willingness to pay (WTP) for ERP practices. Environmentally responsible practices in the hotel industry have three components, which are: organizational ERP, operational ERP, and external ERP activities. Organizational ERP in a company depends on the corporate culture, individual ethical standpoints of the CEO and employees, national culture and other points of view. A company's ERP can significantly influence the job satisfaction of employees as well and increase the ERP training of employees. Also, it affects the image of the company to consumers, if consumers see ERP information about a company than it is more likely to positively affect the consumer's attitudes and purchase intentions. Operational ERP is the operational practices hotels can put into place to be more environmentally responsible. External ERP is the relationships an organization has externally, like with suppliers, and the environmental responsible practices their suppliers have (Choi et al., 2009).

Their study showed that respondents from Greece had higher ERP concerns than the U.S. Respondents and were more strongly influenced by a hotel's ERP during the selection process. The respondents in the United States had a stronger association with the following variables than the Greece respondents: attitude toward organizational ERP; attitude toward operational ERP; attitude towards environmental ERP; behavior intention

on organizational ERP; behavior intention on operational ERP; behavioral intention on external ERP; and willingness to pay. ERP has been an issue in the United States for a longer time in Greece, which may be a reason for these differences between Greece and the United States (Choi et al., 2009).

The relationship, from the respondents from Greece, between consumers' attitude toward external ERP and the willingness to pay shows that the different degrees of the consumers' attitude could be the predominant factor in whether or not a consumer is not willing to pay for ERP and whether or not a consumer will pay 2% to less than 6% for ERP. Consumers are willing to up to 6% more depending of their level of environmental concern. In the United States, it is the relationship between high behavior intention on operational ERP and willingness to pay, that is the major factor in the level of willingness to pay. Although there are differences in levels of willingness to pay, consumers in both the United States and Greece were more likely to stay at a hotel that provides ERP (Choi et al., 2009).

It can be concluded from Choi et al.'s (2009) study that differences in culture and social structure are a factor in deciding a consumer's green preferences along with their willingness to pay. This study showed that the adaptation and implementation of ERP in the hotel industry could allow managers to charge a premium for green products and services. Better communication and marketing with consumers is of strong importance to increase a consumer's willingness to pay.

### **Hypothesizes**

This study hopes to bridge the gap between the conflicting conclusions from Kasim's (2004) study and Choi et al's (2009) study. Based on the above study by Choi et al. (2009) my hypothesizes are as follows:

H1: Being environmentally friendly is a factor when selecting a hotel.

H2: Students will be willing to pay more for an environmentally friendly hotel.

### **Part 3**

#### **Methodology**

##### **Ethics**

This study looked at how students from a large urban university in the southwest perceive environmentally friendly practices in hotels. Since students were involved in the study, the Institutional Review Board (IRB) had to approve this study. Since this study is only a short survey that is of minimal risk to respondents, an exemption from IRB was requested. The letter of consent from IRB can be seen in Appendix A.

To ensure that the rights of the respondents of the study were not violated, each respondent in the survey was given an informed consent form. The informed consent form was based on the framework on the IRB website. The nature of the study was listed as well as why the respondents were chosen for this study. Also the informed consent form let the respondents know that their participation was voluntary and if they did not want to participate they were not required to. To ensure privacy and confidentiality of the respondents no names were taken to ensure that respondents would answer honestly and know that there was no way to track their information.

##### **Sampling Frame**

To determine the sampling frame, the target population had to first be defined. For this study students were used as the target population. The student population is diverse in every way. It is mostly a commuter campus, with a wide range of age of students. Students also take on average six years to complete a four-year degree.

Once the target population was determined, the sampling frame had to be chosen. Due to accessibility reasons students in the college of business and students in the hotel college were selected to partake in this study. Due to the sampling frame selected this sample would have to be a non-probability sample and this sample would not be representative of the target population.

The sampling method chosen for this study is a convenience sample. The reason a convenience sample was used was based on the lack of funds and the short time span available had to complete this study. Since convenience samples are cheap and done quickly, this was the best sampling method for this study. The convenience study also allowed the researchers to have access to a large amount of students. While a convenience sample will not allow the results of this study to be representative of any population, it will allow for a larger sample size and the ability to gain information on the perceptions of students on the green movement in hotels. Due to time constraints, the sample size had to be conservative but big enough to have some statistical significance. The goal sample size was 200 for this study.

### **Survey**

For this study the method chosen was a survey. To gain information that could be quantified a survey was the best option. A focus group would have garnered a lot of qualitative data, but the researchers wanted a larger sample size, and they wanted to be

able to quantify the data. Also, with a survey the questions are standard for every respondent.

The questions asked in the survey are broken down into four areas: demographic data, basic environmentally friendly questions, influences on choosing a hotel, and willingness to pay for environmentally friendly practices. The full survey can be viewed in Appendix B. The demographic questions being asked are age, gender, education level and income level. Getting this information can help see if there are any trends in the data from age, gender, education or income level in responses to the other questions. The basic environmentally friendly question asked was whether or not a person recycles while at home. This information will be used to see if there are any trends between recycling at home and staying at environmentally friendly hotels.

There are five questions that involve the factors considered when choosing a hotel. The first question allows respondents to rank the importance of factors when selecting a hotel. There are five factors: price, location, environmentally friendly, amenities and brand. This question will help see what the students look for when selecting a hotel. The next two questions ask specifically if being environmentally friendly is a factor when selecting a hotel. The questions are worded differently to see if respondents are actually reading the questions or just selecting any answer randomly. The next two questions go together, the first asks respondents to select which of the options they consider to be environmentally friendly. All of the choices are environmentally friendly, but some are more obvious than others. This question is designed to see what items or services hotels have that are environmentally friendly are important to consumers. This question could also be used from a marketing perspective to

see which factors would be important when marketing a hotel's environmentally friendly options. The second question in that group asks if a hotel offers any of the environmentally friendly options from the previous question would the respondent be more likely to stay at the hotel. This question looks at factors that influence a person when selecting a hotel. It also shows whether knowing about those environmentally friendly items would influence a person to stay at a hotel.

The last two questions of the survey deal with a person's willingness to pay more for an environmentally friendly hotel. The first question asks if a person is willing to pay more for the environmentally friendly hotel. The last question asks the percentage a person would be willing to pay more to stay at an environmentally friendly hotel. A percentage was used for this question, because a dollar amount would not be consistent among all hotel segments. If a person is staying at an economy hotel, five dollars may be 10% increase in price, while five dollars may be .01% increase on a luxury hotel. A percentage increase was a better option to account for all hotel segments, while it may be more challenging for a respondent to figure out the percentages they would be willing to spend, it will be easier to compare across segments than a dollar amount.

While there are more questions that could be asked, for the purpose of this survey these twelve questions will be quick and relatively easy for a respondent to answer. By limiting the number of questions, a respondent is more likely to answer all of the questions. Also this will not take up a lot of time to fill out which will allow for more people to complete the surveys.

**Pilot Test**

After completing the design for the survey a pilot test was done in a graduate level hotel administration class. The pilot test was done to ensure the questions made sense to people outside of the group of researchers. Also, a pilot test was done to make sure none of the questions were leading or biased in any way. Pilot test respondents were also able to make any comments they had about the survey while taking it. This way the researchers would be able to see any suggestions they have written down. From this pilot test the wording was changed on 7 of the questions. Leading questions were eliminated. Also, the researchers had not wanted to give respondents the option of “not sure” on any of the questions because they wanted the respondents to think about it and answer the question. Unfortunately the pilot test respondents convinced the researchers that even though they want them to say yes or no, the researchers have to give them option of not knowing. While the researchers wanted yes or no responses, people do need the option of not knowing, especially if they are unfamiliar with the topic. The pilot test helped the researchers better their survey and have a better understanding of how others perceive the questions.

**Data Collection**

The data collection for this survey was done over a six-day span. The goal was to collect 200 completed surveys. Three classes were selected to participate in the survey. The first class the researchers went into was an undergraduate Management Information Systems class. The class had 120 students, which divided into three different rooms for breakout sessions with the graduate assistants. The graduate assistants each allowed the

researchers to go into their classrooms, present the survey, and then hand out the survey. The students were informed it was optional for them to participate. From this first class 104 completed surveys were collected.

The second classroom where surveys were administered was an undergraduate hotel administration class with 50 students. The students were told that all information was confidential and they did not need to put their name anywhere on the survey. From this class the researchers were able to collect 46 completed surveys out of 47 students that were in the class that day.

The third classroom where data was collected was also an undergraduate hotel administration class with 80 students. Students were told participation in the survey was completely voluntary and would not affect their grade in the class. There were quite a few students missing from the classroom on the day data was collected but 50 completed surveys were collected.

From these three classes a total of 200 surveys were collected, which exactly met the researchers' goal. This method of face-to-face survey data collection was a quick and effective way to get a good number of surveys completed within a short amount of time.

## **Results**

### **Survey**

The first question asked the gender of the respondent. The respondents could answer male, female or prefer not to disclose. The number of male respondents was 107, the number of female respondents was 92, and there was one respondent who preferred to not disclose his/her gender.

Table 1

*Please indicate your gender*

Please indicate your Gender.	%	N
Male	53.5	107
Female	46.0	92
Prefer not to disclose	0.5	1

*Note n = 200.*

The second question asks respondents to select their age. Respondents had the choices of under 18, 18 to 24, 25 to 35, 36 to 49, 50 to 65, 66 and up, or prefer not to disclose. No respondents were under 18 or 66 and up. Only one respondent preferred not to disclose and one respondent was 50 to 65. Four respondents were 36 to 49. Fifty respondents were 25 to 35 and 104 respondents were 18-24.

Table 2

*Please indicate your age.*

Please indicate your Age	%	N
Under 18	0.0	0
18 to 24	72.0	104
25 to 35	25.0	50
36 to 49	2.0	4
50 to 65	0.5	1
66 and up	0.0	0
Prefer not to disclose	0.5	1

*Note n = 200*

The third question asked respondents to select their highest level of education. Respondents have the choices of some high school, high school diploma or equivalent, some college, Bachelor's degree, some graduate school, masters degree, and doctorate degree. There were two respondents who selected some high school, 12 respondents who

selected high school diploma or equivalent, 132 respondents who selected some college, 50 respondents who selected bachelor's degree, two respondents who selected some graduate school, and two respondents who selected master's degree. No respondents selected doctorate degree.

Table 3

*What is your highest level of education?*

What is your highest level of education?	%	N
Some high school	1	2
High school diploma	6	12
Some college	66	132
Bachelors degree	25	50
Some graduate school	1	2
Masters degree	1	2
Doctorate degree	0	0

Note n = 200

The fourth question asked respondents their household income. Respondents were able to select from the following choices \$0 to \$45,000; \$45,001 to \$70,000; \$70,001 to \$110,000; \$110,001 to \$150,000; \$150,001 to \$200,000; and prefer not to disclose. In the \$0 to \$45,000 range there were 90 respondents. In the \$45,001 to \$70,000 range there were 26 respondents. In the \$70,001 to \$110,000 there were 22 respondents. In the \$110,001 to \$150,000 range there were 15 respondents. In the \$150,001 to \$200,000 range there were 11 respondents. Thirty-six respondents preferred not to disclose their income.

Table 4

*What is your household income?*

What is your household income?	%	N
\$0 to \$45,000	45.0	90

\$45,001 to \$70,000	13.0	26
\$70,001 to \$110,000	11.0	22
\$110,001 to \$150,000	7.5	15
\$150,001 to \$200,001	5.5	11
Prefer not to disclose	18.0	36

Note n = 200.

The fifth question asked respondents whether or not they recycle at home. Respondents had the choices of yes, no or program not available. The number of respondents who chose yes was 102. The number of respondents who chose no was 83. The number of respondents who chose program not available was 15.

Table 5

*Do you recycle at home?*

Do you recycle at home?	%	N
Yes	51.0	102
No	41.5	83
Program not available	7.5	15

Note n = 200.

Question six asked respondents to rank the following items: price, location, environmentally friendly, amenities, and brand from one to five based on importance when selecting a hotel. One was the most important and five was the least important. The average ranking for price was 1.99. The average ranking for location was 1.95. The average ranking for environmentally friendly was 4.095. The average ranking for amenities was 3.235. The average rankings for brand was 3.75.

Table 6

*Please Rank the following items from 1-5, with 1 being the most important and 5 being the least important. What factors do you consider when selecting a hotel?*

What factors do you consider when selecting a hotel?	Average Ranking from 1-5, with 1 being most important
--	---

Price	1.99
Location	1.95
Environmentally Friendly	4.095
Amenities	3.235
Brand	3.75

Question seven asked respondents whether a hotel being environmentally friendly is a factor when selecting a hotel. Respondents had the options of answering yes, no, or not sure. The number of respondents who responded yes was 37. The number of respondents who said no was 117. The number of respondents who answered not sure was 46.

Table 7

*Is being an environmentally friendly hotel a factor for you when choosing a hotel?*

Environmentally friendly a factor when choosing hotel?	%	N
Yes	18.5	37
No	58.5	117
Not Sure	23.0	46

Note n = 200.

Question eight asks respondents if a hotel was not environmentally friendly would they stay there. The choices were yes, no, or not sure. The number of respondents who chose yes was 115. The number of respondents who chose no was 19. The number of respondents who chose not sure was 66.

Table 8

*If a hotel was not environmentally friendly would you stay there?*

If a hotel was not environmentally friendly would you stay there?	%	N
Yes	57.5	115
No	9.5	19
Not Sure	33.0	66

Note n = 200.

Question nine asks respondents to select all the items that they think are environmentally friendly from the following list: LEED certification; linen re-use program; energy efficient light bulbs; energy star appliances; recyclable paper products; recycling program; and paperless check out. The number of respondents that chose LEED certification was 104. The number of respondents who selected linen re-use program was 125. The number of respondents who selected energy efficient light bulbs was 179. The number of respondents who selected energy star appliances was 171. The number of respondents who selected recyclable paper products was 172. The number of respondents who selected recycling program was 180. The number of respondents who selected paperless check out is 180.

Table 9

*Which of the following items do you think are environmentally friendly? Please mark all that apply.*

What items are environmentally friendly?	%	N
LEED Certification	52.0	104
Linen Re-use Program	62.5	125
Energy Efficient Light Bulbs	89.5	179
Energy Star Appliances	85.5	171
Recyclable Paper Products	86.0	172
Recycling Program	90.0	180
Paperless Check Out	90.0	180

Note n = 200.

Question ten asks respondents if any of the previous questions programs would make them more likely to stay at a hotel. The respondents were given the choices of yes, no, and not sure. The number of respondents who answered yes was 92. The number of

respondents who answered no was 51. The number of respondents who answered not sure was 57.

Table 10

*If a hotel offered the programs listed above, would you be more likely to stay there?*

If a hotel offered the programs listed above, would you be more likely to stay there?	%	N
Yes	46.0	92
No	25.5	51
Not Sure	28.5	57

*Note n = 200.*

Question eleven asks respondents if they would be willing to pay more to stay at an environmentally friendly hotel. The answer choices for respondents was yes, no, or not sure. The number of respondents who chose yes was 33. The number of respondents who chose no was 113. The number of respondents who chose not sure was 54.

Table 11

*Would you be willing to pay more to stay at an environmentally friendly hotel?*

Would you be willing to pay more to stay at an environmentally friendly hotel?	%	N
Yes	16.5	33
No	56.5	113
Not Sure	27.0	54

*Note n = 200.*

Question twelve asks respondents what percentage more would they be willing to spend on an environmentally friendly hotel. The answer choices were: 0%; 1-3%; 4-7%; 8-10%; 11-15%; 16-20%; and 21% and up. The number of respondents who answered 0% was 64. The number of respondents who answered 1-3% was 45. The number of respondents who answered 4-7% was 43. The number of respondents who answered 8-10% was 30. The number of respondents who answered 11-15% was 7. The number of

respondents who answered 16-20% was 6. The number of respondents who answered 21% and up is 5.

Table 12

*What percentage more would you be willing to spend on an environmentally friendly hotel?*

What percentage more would you be willing to spend on an environmentally friendly hotel?	%	N
0%	32.0	64
1-3%	22.5	45
4-7%	21.5	43
8-10%	15.0	30
11-15%	3.5	7
16-20%	3.0	6
21% and up	2.5	5

Note n = 200.

## Discussion and Conclusions

### Limited Discussion

The results from this study showed that respondents did not consider environmentally friendly practices when selecting a hotel. Out of 200 respondents only 37 said they consider environmentally friendly practices when selecting a hotel. When looking at the rankings for factors for selecting a hotel, environmentally friendly practices had the lowest average rankings out of the five factors given. Price, location, amenities and brand were all considered before environmentally friendly practices. Also, a hotel not offering environmentally friendly practices did not detour respondents from staying at the hotel. More than half of the 200 respondents, 115 respondents, said they would still stay at a hotel that did not offer environmentally friendly practices.

Linen re-use programs are used worldwide by hotels to be more environmentally friendly. The results of this study show that respondents did not believe that was as environmentally friendly as other environmentally friendly programs hotels could be doing. More respondents chose paperless check out and recycling programs as environmentally friendly, followed closely by energy efficient light bulbs, then recyclable paper products and energy star appliances. Linen re-use program was sixth out of seven items that respondents could select as environmentally friendly. While over half of respondents thought it was environmentally friendly, it was much lower than most of the other options. The lowest practice was LEED certification, more than half of the respondents chose it as environmentally friendly but it was still much lower than the other practices.

### **Conclusions**

The results of this study showed that consumers do not look at environmentally friendly practices when selecting a hotel. Only 20% of respondents looked at environmentally friendly practices when selecting a hotel. This 20% is a niche that some hotels could choose to go after.

Respondents were more likely to stay at resorts that did offer environmentally friendly practices, as long as they knew about the practices. Hotels should market the environmentally friendly programs they offer so consumers are aware and may be more likely to stay at the property. There were respondents who were not sure if environmentally friendly options would make them more likely to stay at a resort. These respondents may be convinced by better marketing and understanding of what hotels are doing to be more environmentally friendly. LEED certification is an environmentally

friendly practice that encompasses some of the other practices and signifies that a hotel is environmentally friendly. Respondents from this study did not think it was environmentally friendly. If hotels marketed their LEED certifications with an explanation of what LEED certification is then consumers may be more likely to stay there.

While 56% respondents said they would not pay more for an environmentally friendly hotel, only 32% of respondents said they would pay 0% more for an environmentally friendly hotel. This shows that while respondents said no, when faced with an amount, they actually were willing to spend more.

### **Professional Implications and Future Research**

#### **Professional Implications**

This study shows that hotels may need to re-evaluate their environmentally friendly practices. The majority of respondents do not consider environmentally friendly practices when selecting a hotel. Hotels need to decide if they want to go after the niche market of environmentally friendly consumers.

Marketing efforts could help hotels gain more consumers interested in environmentally friendly practices. By informing consumers of what environmentally friendly practices are available, they could gain more customers.

#### **Future Research**

Future research into consumers' perceptions of environmentally friendly hotels should focus on what consumers want and what environmentally friendly items are more important to them. This study should be expanded internationally to see if consumers in

certain countries are interested in environmentally friendly hotels. Future research may also be done to see why consumers want environmentally friendly hotels.

### References

- Aburden, P. (2005). *Mega trends 2010: The rise of conscious capitalism*. Retrieved July 13, 2010 from [http://www.kingstone.com.tw/Book/Book\\_Page.asp?id=2014940768294&actid=A0512cool&owner=NULL&uid=0](http://www.kingstone.com.tw/Book/Book_Page.asp?id=2014940768294&actid=A0512cool&owner=NULL&uid=0)
- Blanco, E., & Muller, S. (2009). A critical review of voluntary environmental initiatives in tourism: Policy implications for rejuvenation. *Tourism, 57*(3), 225-240.
- Brundtland, G. H. (1987). *Our common future, world commission on environment development*. New York, NY: Oxford University Press.
- Carroll, A. B. (1991). The pyramid of corporate social responsibility: Toward the moral management of organizational stakeholders, *Business Horizons*, July-August 1991
- Choi, G., Parsa, H., Sigala, M., & Putrevu, S. (2009). Consumers' environmental concerns and behaviors in the lodging industry: A comparison between Greece and the United States. *Journal of Quality Assurance in Hospitality & Tourism, 10*, 93-112.
- Dimitrios, D. ,& Ladkin, A. (1999). 'Green' strategies in the tourism and hospitality industries. In F. Vellas & L. Bechere (Eds.), *The international marketing of travel and tourism: A strategic approach*. London, England: Mcmillan.
- Goldstein, N., Cialdini, R., & Griskevicius, V. (2008). A room with a viewpoint: Using social norms to motivate environmental conservation in hotels. *Journal of Consumer Research, 35*, 472-482.
- Goodall, B. (1994). Environmental auditing: Current best practice (with special reference to british tourism Firms). in Seaton, A. (ed), *Tourism: The State of the Art*. Wiley and

sons, pp. 655-674 .

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), 251-270.

Green and sustainable hospitality. (2008). *Hotels & Resorts*, 150-154.

Gustin, M.E. & Weaver, P.A. (1994). "Do Guest Want Green Hotels?" In *Lodging Hospitality*, December pp: 70-72

Kang, M., & Moscardo, G. (2006). Exploring cross-cultural differences in attitudes towards responsible tourist behavior: A comparison of Korean, British and Australian tourists. *Asia Pacific Journal of Tourism Research*, 11(4), 303-320.

Kasim, A. (2004). Socio-environmentally responsible hotel business: Do tourists to Penang Island, Malaysia care?. *Journal of Hospitality & Leisure Marketing*, 11(4), 5-28.

Kasim, A. (2006). The need for business environmental and social responsibility in the tourism industry. *International Journal of Hospitality & Tourism Administration*, 7(1), 1-22.

Khanna, M. (2001). Non-mandatory approaches to environmental protection. *Journal of Economic Surveys*, 15, 291-324.

Kirk, D. (1995). Environmental management in hotels. *International Journal of Contemporary Hospitality Management*, 7(6), 3-8.

Leslie, D. (2001). Serviced accommodation, environmental performance and benchmarks. *Journal of Quality Assurance in Hospitality & Tourism*, 2(3/4), 127-147.

Mackoy, R. D., Calantone, R., and Droge, C. (1995), "Environmental Marketing:

- Bridging the Divide between the Consumption Culture and Environmentalism,” in *Environmental Marketing*, ed. Michael J. Polonsky and Alma T. Mintu-Wimsatt, Binghamton, NY: Haworth, 37–54.
- Mclaren, D. (1998). Rethinking tourism and ecotravel: The paving of paradise and what you can do to stop it. Bloomfield, CT: Kumarian Press, Inc.
- Moore, W. (1996, July). Address. Miami Conference on the Caribbean and Latin America. Miami, Florida.
- O'Neill, M., & Alonso, A. D. (2009). Small hospitality business involvement in environmentally friendly initiatives. *Tourism and Hospitality Planning & Development*, 6(3), 221-234.
- Tilley, F. (1999). The gap between the environmental attitudes and environmental behavior of small firms. *Business Strategy and the Environment*, 8(4), 238–248.
- Tsai, C., & Tsai, C. (2008). Impacts of consumer environmental ethics on consumer behaviors in green hotels. *Journal of Hospitality & Leisure Marketing*, 17(3-4), 284-313.
- Tzschentke, N., Kirk, D., & Lynch, P. (2008). Ahead of their time? Barriers to action in green tourism firms. *The Service Industries Journal*, 28(2), 167-178.
- UNWTO (United Nations World Tourism Organization). (2008) Tourism facts, UNWTO. Retrieved from [http:// www.unwto.org/index.php](http://www.unwto.org/index.php) (accessed July 13, 2010).
- WTO. (2002). Voluntary initiatives for sustainable tourism: Worldwide inventory and comparative analysis of 104 eco-labels, awards and self-commitments. Madrid, Spain: World Tourism Organization.
- Yeh, P. H., Tsai, C. F., & Huan, T. C. (2003). Tourists' environment protection behavior

and their decision on choosing the green hotel. *Journal of Environment and Management*, 4(2), 61–82.

Appendix A



**Social/Behavioral IRB – Exempt Review  
Deemed Exempt**

**DATE:** July 1, 2011

**TO:** Dr. Kurt Stahura, Hotel Administration

**FROM:** Office of Research Integrity – Human Subjects

**RE:** Notification of review by /Charles Rasmussen/  
Dr. Charles Rasmussen, Co-Chair  
Protocol Title: The Green Movement in Hotels: Are UNLV students on  
board?  
Protocol # 1106-3842M

---

This memorandum is notification that the project referenced above has been reviewed as indicated in Federal regulatory statutes 45CFR46 and deemed exempt under 45 CFR 46.101(b)2.

**PLEASE NOTE:**

Upon Approval, the research team is responsible for conducting the research as stated in the exempt application reviewed by the ORI – HS and/or the IRB which shall include using the most recently submitted Informed Consent/Assent Forms (Information Sheet) and recruitment materials. The official versions of these forms are indicated by footer which contains the date exempted.

*Any changes to the application may cause this project to require a different level of IRB review. Should any changes need to be made, please submit a **Modification Form**. When the above-referenced project has been completed, please submit a **Continuing Review/Progress Completion report** to notify ORI – HS of its closure.*

If you have questions or require any assistance, please contact the Office of Research Integrity - Human Subjects at [IRB@unlv.edu](mailto:IRB@unlv.edu) or call 895-2794.

Office of Research Integrity – Human Subjects  
4505 Maryland Parkway • Box 451047 • Las Vegas, Nevada 89154-1047  
(702) 895-2794 • FAX: (702) 895-0805

**Appendix B**

1. Please indicate your gender.
  - a. Male
  - b. Female
  - c. Prefer not to disclose
  
2. Please indicate your age.
  - a. Under 18
  - b. 18 to 24
  - c. 25 to 35
  - d. 36 to 49
  - e. 50 to 65
  - f. 66 and up
  - g. Prefer not to disclose
  
3. What is your highest level of education?
  - a. Some high school
  - b. High School Diploma or equivalent
  - c. Some college
  - d. Bachelors degree
  - e. Some graduate school
  - f. Masters degree
  - g. Doctorate Degree
  
4. What is your household income?
  - a. \$0 to \$45,000
  - b. \$45,001 to \$70,000
  - c. \$70,001 to \$110,000
  - d. \$110,001 to \$150,000
  - e. \$150,001 to \$200,000
  - f. Prefer not to disclose
  
5. Do you recycle at home?
  - a. Yes
  - b. No
  - c. Program not available
  
6. Please Rank the following items from 1-5, with 1 being the most important and 5 being the least important. What factors do you consider when selecting a hotel?

Price	_____
Location	_____
Environmentally Friendly	_____
Amenities	_____
Brand	_____
  
7. Is being an environmentally friendly hotel a factor for you when choosing a hotel?
  - a. Yes
  - b. No
  - c. Not Sure
  
8. If a hotel was not environmentally friendly would you stay there?

- a. Yes
- b. No
- c. Not Sure

9. Which of the following items do you think are environmentally friendly? Please mark all that apply.

- LEED Certification \_\_\_\_\_
- Linen Re-use Program \_\_\_\_\_
- Energy Efficient Light Bulbs\_\_\_\_\_
- Energy Star Appliances \_\_\_\_\_
- Recyclable Paper Products \_\_\_\_\_
- Recycling Program \_\_\_\_\_
- Paperless Check Out \_\_\_\_\_

10. If a hotel offered the programs listed above, would you be more likely to stay there?

- a. Yes
- b. No
- c. Not sure

11. Would you be willing to pay more to stay at an environmentally friendly hotel?

- a. Yes
- b. No
- c. Not sure

12. What percentage more would you be willing to spend on an environmentally friendly hotel?

- a. 0%
- b. 1-3%
- c. 4-7%
- d. 8-10%
- e. 11-15%
- f. 16-20%
- g. 21% and up