

## Exploring Gender Differences on Generation Y's Attitudes towards Green Practices in a Hotel

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### ABSTRACT

*One of the early green measures, the Save the Earth campaign, has offered significant bottom-line savings for hotels since 1993. In the current economic recession, new green measures for emerging group of customers could offer another way of saving operating cost and conserving local environment for the hotel. As environmentally conscious Gen Yers become a frequent traveler segment, identifying green attributes they are willing to accept becomes vital. Thus, this study examines the attitudes of Gen Yers toward green practices and identifies green attributes that Gen Y males and females prefer. The results show significant differences in the attributes that each gender prefers, and offer segmentation guidelines and suggest specific environmental friendly services that would result in cost saving for Gen Yers. According to the results of a proposed model, hotel companies should make more efforts to promote their green practices to Gen Y hotel guests who are willing to pay more for them.*

**Keywords:** *green hotel, green practices, generation Y, gender*

### INTRODUCTION

Generation Yers are generally people born after 1980. They are the children of "Baby Boomers" or "Generation X". This generation has been watched closely by sociologists and historians for different behaviors and attitudes from those of other generations (Jayson, 2006). For example, Gen Yers are civic-minded and socially conscious individuals, employees, and consumers. According to market research from Maritz, the majority of Gen Yers (77%) claim to care about the environment. Forty-six percent of respondents would shop at a retailer providing environmentally friendly service. Market research of more than 2,200 adults conducted by

Adcecco Group North America reported that Gen Y workers would sacrifice, on average, 6.2% of their wages to work for an environmentally friendly firm while environmentally conscious baby boomers would sacrifice just 2.5% (Murray, 2008). In particular, 69% of Gen Yers consider a company's social and environmental commitment when deciding where to shop, and 83% will trust a company more if it is socially/environmentally responsible. More importantly, 47% said they would be willing to pay more for environmentally friendly services, products or brands (Bartolone, 2007).

One of the reasons that Gen Yers are more environmentally conscious than previous generations is because of the public education that they received early in life (Mendleson & Polonsky, 1995). While growing up, Gen Y has faced many environmental issues such as global climate change and ozone depletion and acquired an environmental awareness through a sound environmental education. As a result, they have learned why it is important to protect the environment. In addition, they have encountered many environmental campaigns. For instance, they might have found a "Save the Earth" card in a guest room when traveling with their baby boomer parents. The Save the Earth campaign was started in 1993 by the Green Hotels Association and quickly spread to hotels across the U.S. (Honey, 2008). This successful campaign, which has allowed the hotels to give guests the option not to change their sheets and towels every day, have offered an estimated savings of \$6.50 a day per occupied room and a total of five percent on utilities (Honey, 2008). As the hotel industry battles a historic downturn in travel since 2009, the Save the Earth campaign has become an optional housekeeping service in the name of a green measure. The optional housekeeping service offers guest a different level of service: no service, replace towels/empty trash/quick vacuum, or full clean. In a recent newspaper poll, Best Western hotels reported that 40% of their guests chose no or limited cleaning during their stay (Yu, 2010).

Reflecting the increased importance of environmental protection in the hospitality industry, studies on hotel green practices and guests' attitudes have been extensively published in the hospitality academic journals (Han, Hsu, & Lee, 2009; Han, Hsu, Lee, & Sheu, In Press; Han & Kim, In Press; Manaktola & Jauhari, 2007; Millar & Baloglu, 2008). Most of the studies reported a correlation between demographic variables and the green attributes that hotel customers prefer. Among the variables, age has been explored to determine greener customers (Finisterra Do Pago, Barata Raposo, & Filho, 2009). Millar and Baloglu (2008) found that younger hotel customers (between 30 and 59 years) were more in favor of environmental attributes than were the more mature customers (60 years old and older). However, little research has explored the green dimensions that Gen Y's seek in their hotel stay. As environmentally conscious Gen Yers enter into a primary business and leisure traveler group in the U.S., no academic literature provides a solid process for uncovering the true needs of the specific Gen. Y segment in which to result in more savings in hotel operations. To fill this gap, this study examines Gen Yers's attitudes toward green practices and identifies the green attributes that they prefer by gender. More specifically, it identifies the underlying factors of Generation Y hotel guests who are willing to pay more for environmentally friendly hotels. The results of this research will illustrate Gen Yers' dimensions and benefits sought toward green practices and help hotel marketers better understand Gen Yers. By understanding eco-savvy Gen Y behaviors, hotels can actually save costs, and even charge small fees for anything related to local environment conservation.

## **LITERATURE REVIEW**

## **Green hotels**

The term “green” refers to “actions that reduce the impact on the environment, such as eco- purchasing or recycling”(Wolfe & Shanklin, 2001). In a similar manner, a “green hotel” is defined as an eco-friendly hotel operation that performs environmentally friendly practices such as saving water/energy, using eco-friendly purchasing policies, and reducing emission/waste disposals to protect the natural environment and reduce operational costs (Green Hotels Association, 2010). The Green Hotels Association is an independent organizations offering membership to participating hotels that adopt its guidelines to reduce the hotel’s impact on the environment and to reduce costs. On the other hand, Green Seal certifies hotels as green, and offers a rigorous inspection program. Its standard covers waste minimization, reuse, and recycling, energy efficiency and conservation, management of fresh water resources and waste water, and reduction and handling of hazardous substances. Currently, Green Seal lists 85 hotels in 20 states (Seal, 2009). The guidelines for green hotels of these organizations are similar in terms of green measurements. When it comes to energy-saving practices, they direct hotels to energy management systems, fluorescent bulbs, linen cards, lights out cards, and motion sensors for public rest rooms, meeting rooms, and exercise rooms. The water-saving system includes low-flow showerheads, low-flow toilets, waterless urinals, and guestroom recycler baskets.

## **Green attributes**

Several studies in the hospitality literature examined the green attributes that hotel guests prefer. Watkins (1994) reported that travelers consider a green hotel to provide recycling bins, energy-efficient lighting, using recycled paper for promotional materials, changing sheets only when requested, and turning off lights in unoccupied guest rooms. Kasim (2004) indicated that tourists were willing to accept rooms with water-saving features, recycling bins, fire-safety features, energy saving features, and information on local ecotourism attractions. In particular, Millar and Baloglu (2008) identified a list of green attributes that 165 attendees at a hotel developer’s conference prefer to have in the guest room of a hotel. Among the attributes, sheets changed only on request for guests staying more than one night received a mean score of 6.82 on a 7-point likert scale, which was the highest mean out of all the attributes. Such attributes as occupancy sensors in the room ( $M = 6.79$ ) and key cards that turn power to the room on and off ( $M = 6.73$ ) were closely followed. The least attributes that the respondents prefer were low-flow showerheads ( $M = 5.04$ ), followed by refillable soap dispensers ( $M = 5.18$ ), and refillable shampoo dispensers ( $M = 5.68$ ). They argued that demographic criteria such as age and gender correlated with environmentally friendly attributes.

## **Demographic criteria**

Gender variable has been explored in many green consumerism studies. It has been argued that women are more likely to present pro-environmental behavior (Laroche, Bergeron, & Barbaro-Forleo, 2001; Mainieri, Barnett, Valdero, Unipan, & Oskamp, 1997; Mostafa, 2007). In the hospitality literature, Millar and Baloglu (2008) showed that environmentally friendly attributes that the male and the female respondents preferred were significantly different. For instance, females were less likely to approve Energy Saving Light Bulbs in the sleeping area of the guest room and the bathroom, and Low Flow Toilets than were males. Kindlon (2006)

claimed that a knowledge economy is dominated by young women who have unique skills and traits such as sensitivity, intuition, and a willingness to collaborate. He noted a distinct difference between Gen Y males and females: Gen Y females base their reasoning on the feelings of those affected by their decisions while men based their reasoning on how established rules or laws should be applied. Therefore, two research hypotheses were selected to guide this study:

Hypothesis 1: Generation Y's gender differences exist with respect to green practices in a hotel.

Hypothesis 2: Generation Y hotel guests who are willing to pay more for environmentally friendly hotel can be explained in terms of green practice attributes.

## **METHOD**

### **Study population and sampling**

Participants in this study were people over 18 years of age who had stayed at a hotel during the past 12 months. A convenience sampling method was used because of time and budget constraints. The principal researcher distributed questionnaires to guests in hotels, at the Buffalo Niagara International Airport, and at the Buffalo Niagara Convention and Visitors Bureau. Two researchers asked college students to participate voluntarily in the survey and collected the questionnaires in classes where two schools are located in Western New York and Northern Florida. The first round of the data collection took place from April 12 to April 23 and the second round of the data collection was conducted from August 23 to September 1, 2010. A total of 185 questionnaires were collected and coded into IBM SPSS (Statistical Package for Social Science) Statistics 19 (formerly SPSS Statistics) for analysis. In this study, those who were born between 1980 to 1991 were selected to use the samples for the study, which accounted for a total of 143 samples.

### **Study instrument and data analysis**

A series of questions was developed through the extensive literature reviews (Abeliotis, Koniari, & Sardianou, 2010; Han, Hsu, & Sheu, 2010; Laroche, et al., 2001; Lee, 2008). The questionnaire asked about 1) hotel experience, 2) green attitudes and behavior regarding green practices in a hotel, 3) opinion about staying at a green hotel, and 4) socio-demographic information.

To ascertain the respondents' hotel experiences and usages, frequency and descriptive analyses were conducted. To test the different relationships between gender and green practices in a hotel, independent samples t-test was conducted.

To test the research hypothesis that Generation Y guests who are willing to pay more for a green hotel can be explained in terms of green practices in a hotel, multiple regression analysis using the stepwise method was employed. To test the research hypothesis and accomplish the main purposes of the study, a model was employed:

$$y = f(x_s),$$

where,

y = willingness to pay more for a green hotel  
xs = predictors (green practices in a hotel)

## RESULTS

### Socio-demographic profile

Frequency and descriptive analyses were used to provide an overview of the generation Y's socio-demographic profiles and their hotel use in the past 12 months. The majority of respondents were female (66.4%), probably because the sample was mostly drawn from two universities in the U.S. where most of the students are female. Half of the respondents (51.7%) were born between 1988 and 1989 (21 to 22 years old), followed by those born between 1990 and 1991 (19 to 20 years old, 35.8%). The largest percentage of respondents had an associate's degree (65.5%) and an advanced degree (29.6%). Half of respondents had an annual household income of less than \$30,000. A majority of respondents reported that they were White or Caucasian. These findings are believed to result from most samples drawn from university classes.

### Hotel experiences and usages

A majority of respondents (86.7%) stayed in at least one hotel in the past 12 months. Their average number of hotel stays was 9.7 nights. A fourth of respondents (24.8%) stayed at a mid-price hotel with food and beverage amenities, followed by a mid-price hotel without food and beverage amenities (20.2%) and upscale hotel (15.6%). Their main reasons for staying at a hotel were leisure vacation (59.1%) and business trip (13.1%), followed by visiting friends or relatives (10.9%). The most common booking method was hotel websites (33.8%), followed by third-party website (30.2%) and calling the hotel directly (20.1%).

In the past three years, a majority of respondents (78.7%) had not stayed at any certified green or environmentally friendly hotel. Those who stayed at such hotels spent an average of 11.9 nights there. This result may be because few green hotels were available, or because respondents stayed at green hotels without having realized it. The percentage of respondents who were willing to pay extra to stay in a green hotel was up to 9.6% (mean) and 10.0% (median).

### Generation Y's gender differences in green practices in a hotel

The hypothesis that Generation Y shows gender differences with respect to green practices of a hotel, was tested using the independent samples t-tests. Significant differences were found between two variables at the .05 level of significance with two-tailed test: "offering a linen reuse option to multiple night guests" and "providing environmentally friendly foods (i.e., low toxicity, organic or locally grown/made)". A statistically significant difference was found at the .05 level,  $t = 3.13$ ,  $p = .02$ , two-tailed that female guests cared more about having a linen reuse option than male guests did. Another statistical difference between females and males was found at the .05 level of probability,  $t = 2.37$ ,  $p = .02$ . Female guests in a hotel perceive the availability of environmental friendly foods as a more important green practice than male guests do. These findings are consistent with those of Laroche, Bergeron, and Barbaro-Forleo (2001).

Females in generation Y seem to be more concerned about environmental consequences than males are.

No statistical differences between females and males were found in other statements. Regardless of the gender, the most important green practices in a hotel were clean rooms (Female = 4.86 and Male = 4.83) and clean water (Female = 4.81 and Male = 4.83). The least important practice in a green hotel was building/architecture in harmony with nature (Female = 3.72 and Male = 3.74). Hotel guests, regardless of where they stay, seem to want clean rooms and clean water. These results are summarized in Table 1.

**Table 1. Gender Differences in Green Practices of a Hotel: Independent t-test Analysis**

Green Practices	Female (n=94)	Male (n=48)	t stat (p-value)
Training employees for better environmental performance	4.12 <sup>a</sup> (0.84) <sup>b</sup>	3.96 (0.90)	1.04 (0.30)
Visible communications about green practices such as environmental messages in advertising	3.86 (0.89)	3.65 (1.02)	1.23 (0.22)
Participation in environmental partnership or certification	4.08 (0.89)	4.02 (0.91)	0.34 (0.73)
Use of sensors or timers to save electricity in intermittent use areas	4.17 (0.80)	3.98 (0.79)	1.36 (0.18)
Establishment of active recycling program for materials in all sections of the hotel	4.51 (0.70)	4.35 (0.73)	1.20 (0.23)
Establishment of system for prompt disposal of packaging materials and creates to reduce waste	4.22 (0.93)	4.17 (0.81)	0.31 (0.76)
Use of environmentally responsible cleaners throughout the property	4.28 (0.83)	4.06 (0.86)	1.47 (0.14)
Energy-saving light bulbs in all rooms	4.38 (0.74)	4.15 (0.88)	1.70 (0.09)
<b>Offering a linen reuse option to multiple night guests</b>	<b>4.11 (0.93)</b>	<b>3.48 (1.22)</b>	<b>3.13 (0.02*)</b>
Having an active system to detect and repair water leakage in toilets, faucets and shower heads	4.07 (0.87)	3.92 (1.03)	0.96 (0.40)
Providing cleaned fresh air throughout the hotel	4.41 (0.80)	4.60 (0.68)	-1.53 (0.13)
Providing clean hotel rooms	4.86 (0.45)	4.83 (0.43)	0.36 (0.72)
Providing clean water to the guests	4.81 (0.49)	4.83 (0.48)	-0.29 (0.77)
<b>Providing environmentally friendly foods (i.e., low toxicity, organic or locally grown/made)</b>	<b>3.84 (0.98)</b>	<b>3.40 (1.20)</b>	<b>2.37 (0.02*)</b>
Building/architecture in harmony with nature	3.59 (1.07)	3.48 (1.03)	0.56 (0.57)
Providing clean amenities	4.74 (0.53)	4.60 (0.68)	1.36 (0.18)
Swimming pool with wastes containing less chemicals	4.06 (0.78)	3.90 (0.93)	1.12 (0.27)
Encouraging business with environmentally friendly service providers	4.01 (0.86)	3.94 (0.98)	0.46 (0.65)

*Note.* Respondent's answers were measured by a 5-point Likert scale of 1 (highly unimportant), 2 (unimportant), 3 (neutral), 4 (important), and 5 (highly important).

<sup>a</sup>Mean.

<sup>b</sup>Standard Deviation in parentheses.

\*  $p < .05$ .

## **Willingness to pay more for a green hotel by generation Y**

Table 2 presents the multiple regression results from fitting independent variables (green hotel practices) to the dependent variable (willingness to pay more for a green hotel) by generation Y. The research hypothesis, that green hotel practices can explain variations in the willingness to pay more for a green hotel by generation Y, was tested by a proposed model. Four variables were found to be significant factors in the model.

According to the model, 41% of the variation in “willingness to pay more for a green hotel” was explained by these predictors:

- Encouraging business with environmentally friendly service providers
- Visible communications about green practices, such as environmental messages in advertising
- Providing environmentally friendly foods (i.e., low toxicity, organic or locally grown/made)
- Establishment of active recycling program for materials in all sections of the hotel
- Providing clean hotel rooms

Predictors that were excluded from the model via stepwise regression included 13 other important green hotel practice variables. Comparing standardized partial regression coefficient ( $\beta$ ), “business with environmentally friendly service provider” explained the largest portion (29%) of the variation in the willingness to pay more for a green hotel, followed by establishment of active recycling program (26%), “environmentally friendly foods (18%), and visible communications about green practices (16%).

Positively influential predictors associated with the willingness to pay more for a green hotel included “visible communications,” “establishment of active recycling program,” “business with environmentally friendly service providers,” and “environmentally friendly foods.” In contrast, a negatively influential predictor was “clean hotel rooms.” The reason for this finding may be that generation Y hotel guests who want to pay more in a green hotel might consider that the clearer room they have, the more wastes environment they make.



**Table 2. Stepwise Multiple Regression Results from Fitting Independent Variables (Green Hotel Practices) to the Dependent Variable (Willingness to Pay More for a Green Hotel<sup>a</sup>)**

Independent Variable/Predictor	Unstandardized Coefficient (b)	Standardized Coefficient ( $\beta$ )	t value	P value	Tolerance
Constant	1.97		3.39	.00	
Encouraging business with environmentally friendly service providers <sup>b</sup>	.23	.29	3.64	.00	.75
Visible communications about green practices such as environmental messages in advertising	.12	.16	1.97	.05	.72
Establishment of active recycling program for materials in all sections of the hotel	.25	.26	3.09	.00	.67
Providing clean hotel rooms	-.31	-.19	-2.78	.00	.95
Providing environmentally friendly foods (i.e., low toxicity, organic, or locally grown/made)	.12	.18	2.36	.02	.77
R <sup>2</sup>	0.41				
Adjusted R <sup>2</sup>	0.38				
F value	17.49				
p value	0.00				
Sample size	133				

*Note.* “Willingness to pay more for a Green Hotel” was used as a dependent variable for the regression analysis with stepwise method. Stepwise regression is that it adds the most statistically significant variable (the one with the highest F statistic or lowest p-value) until there are none left. Tolerance indicates that multicollinearity exists in the model; if tolerance is less than 0.20, a problem with multicollinearity is indicated.

<sup>a</sup>Respondents’ willingness to pay more for green hotel was measured a 5-point Likert scale of 1 (Strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), and 5 (strongly agree).

<sup>b</sup>Respondents’ important green hotel practices was measured by a 5-point Likert scale ranging from 1 (highly unimportant), 2 (unimportant), 3 (neutral), 4 (important), and 5 (highly important).

## CONCLUSION AND IMPLICATION

The hypothesis that generation Y’s gender differences exist in important green practices in a green hotel, was tested. The hypotheses were partially supported. Female members of Generation Y who prefer to stay at a green hotel are more likely to take advantage of a linen reuse option than their male counterparts were. While staying at a green hotel, female Generation Y guests are also more likely to expect environmentally friendly foods than male guests are. These findings are similar to the earlier findings (Laroche, et al., 2001). Female guests are more likely to be socially responsible and engage in environmentally friendly practices while traveling than their male counterparts are (Finisterra Do Pago, et al., 2009). The factor that both males and

females did agree on was that they wanted a healthy and environmentally friendly guestroom in a convenient location.

The research hypothesis that Generation Y hotel guests who are willing to pay more for a green hotel can be explained by the important green practices of a hotel, was tested and partially supported. Generation Y guests will be willing to pay more for a green hotel if it does business with environmentally friendly service providers, advertises its environmentally friendly practices, provides environmentally friendly foods (i.e., low toxicity, organic or locally grown/made), and has a recycling program. One green marketing strategy is to build a green hotel brand through advertising and promotion.

Generalization of this study's findings should be done with caution because the data was limited to western region of New York and northern regions of Florida. The sample consisted of 143 individuals, and used convenience sampling. In addition, the term "green hotel" was not defined on the questionnaire; this might have led respondents to have different perceptions with what a green hotel actually was. For future study, investigating the constraints of "going green" from a guest point of view is suggested.

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