

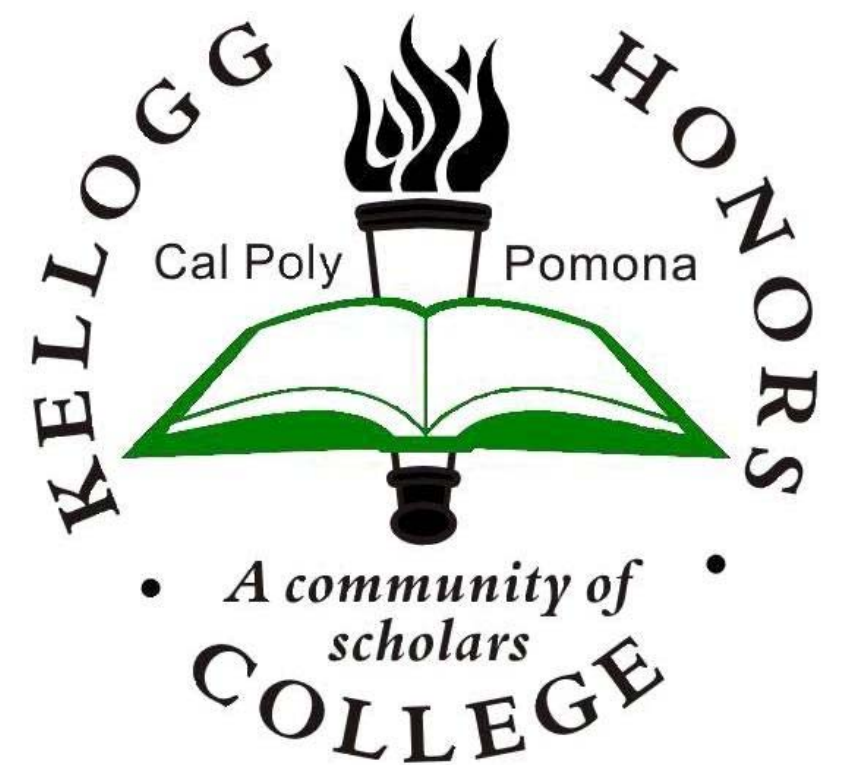
Hotel Sustainability: A Survey on Consumers' Environmental Attitudes and Practices



Amanda Faber, Technology & Operations Management

Kellogg Honors College Convocation 2013

Mentor: Dr. Rita Kumar



Introduction

Over the last few decades, the media has brought to the attention of our society the environmental problems facing the planet. The environmental issues of global warming, habitat destruction and ozone depletion are becoming big concerns. Protecting the environment is a major issue and people have become more environmentally conscious.

More people are starting to partake in eco-friendly activities as the awareness of the ecological problems increases. A positive attitude about environmentally friendly behaviors has led to many incorporating them into their everyday lives.

Travel and tourism are major contributors to economic development while also having the potential to cause extreme damage to the environment. Consumers are becoming aware of the damages of releasing emissions, wasting resources, and excessive consumption of non-durable goods caused by hotels. These consumers are now looking to buy green products and services, and they prefer companies that take measures to be environmentally responsible. Hotels are noticing this public concern, causing them to adopt green practices that can increase their profitability.

What is a "Green" Hotel?

In general, "green" refers to behaviors that decrease negative impacts on the environment, such as recycling or conserving resources. The term, "green" has the same general meaning as "eco-friendly", "environmentally friendly", "environmentally responsible" or "sustainability".

According to the Green Hotels Association, "Green Hotels are environmentally friendly properties whose managers are eager to institute programs that save water, save energy, and reduce solid waste – while saving money – to help protect our one and only earth!"

The green movement has caused many hotels to be environmentally responsible while enjoying the benefits of reduced operational costs and enhancement of their image and reputation.

Current Hotel Sustainability Initiatives

Energy efficiency, water conservation, and waste reduction are some of the things that consumers want hotels to implement. Such mainstream practices as using energy efficient light bulbs, low-flow toilets and showerheads, and linen and towel re-use programs are now commonly found in hotels.

Consumers may feel that a hotel is "green-washing" if it has only adopted these mainstream initiatives. "Green-washing" is a term that is used to describe hotels that are trying to appear more environmentally responsible than they actually are.

There are many different things that can be done by a hotel to be more eco-friendly. Hotels have distinct resources available to them and different costs based on their locations. Because of the differences, each hotel will need to create its own initiatives and programs. What works for one hotel may not work the next, even for hotels that are part of the same chain.

Some hotels are now turning to combined heat and power (CHP) systems. A CHP system will produce two types of energy at the same time. A CHP system will cool and heat water and air by reusing the heat from its engine. This system allows high efficiency (almost 90%), which correlates to high savings and environmental benefits.

Installation of solar panels on the roof of a hotel will generate energy that could be used to heat pools and hot tubs. Rainwater can be collected and used to water the landscaping.

Soap/shampoo dispensers in hotel rooms are prevalent in Europe and Asia, but they have not been popular in the United States. Filling the dispensers with brand-name bath products may cause customers to be more receptive to them. Using the dispensers would cut down on waste usually produced by small bottles.

The Shore Hotel, Santa Monica, CA

Sustainability was the main goal when designing this hotel. The guest room windows have insulated dual-pane glass, and the roof has a white polymer plastic to help reduce heat penetration from the sun. Each room has a balcony and there is a ducted, fresh air system installed to help with temperature control. Elevators work on a pulley system that generate their own power.

They have given Southern California Edison permission to shut down a percentage of its electrical component if a blackout or brownout is forecasted. The energy can be conserved in areas of the hotel like the parking garage. Southern California Edison can reduce the garage lighting by 50% by entering a computer code. The company is also given the ability to override the air conditioning system if needed. The guests can set the temperature of the room to 65 degrees, but the utility company can reset the temperature to 67 degrees to help conserve energy without affecting the guests' comfort.

"Operation Green Clean" gives guests that stay two or more nights the option of having their room cleaned or not. Fresh towels and amenities will be supplied by housekeeping, but the bedding will not be replaced and no vacuuming will occur to help reduce energy costs. If a guest chooses to participate, they will receive a \$10 credit for each night their room is not cleaned. The guests are encouraged to use the credit on one of many local programs that promote sustainability.

Consumer Involvement in Hotel Sustainability Initiatives

The best way to show guests that a hotel is doing more to be sustainable is by allowing them to engage in the initiatives. "Active sustainability initiatives help hotel guests understand how their actions, along with the actions of other guests, can really make a large impact on the environment".

Some of the more common active sustainability initiatives are the linen/towel reuse program and recycling both in the guest room and in public hotel areas.

Certain hotels are now installing dual-flush toilets, which offers two flushing options- a half flush for liquids or for solids a full flush. These toilets have been around for some time, but are still new to the United States. A conversion kit can be bought to transform existing toilets. The amount of water used by these toilets can be reduced up to 45%.

There are new showerheads that allow a guest to choose the desired gallons per minute during their shower. These showerheads do not force low-flow rates on guests who may not want them.

The potential reduction in water consumption, energy consumption, and waste production will only be seen if guests participate. Hotels can inform guests about the potential savings and the impact on the environment that could be possible if they choose to partake in the green initiatives.

Methodology

The survey used in this study was created after a literature review. The first section of the survey inquires about the frequency that the respondent partakes in green practices during their everyday life, using a scale with the parameter of 1 meaning "always" and 5 meaning "never". The next section asked the respondent to rank in order of importance seven attributes used to choose a hotel. The rank was set up so that 1 was the most important factor and 7 was the least important.

The third section of the survey asked about the respondent's preferences and willingness to partake in green practices at a hotel. They were then asked to give their opinions on certain statements about hotels using a five-point Likert-type scale, using anchors of 1 meaning "strongly agree" and 5 meaning "strongly disagree". The next section regarded the customer's willingness to pay a premium for a green hotel in terms of a percentage. The final section contained demographic questions on age, gender, and education.

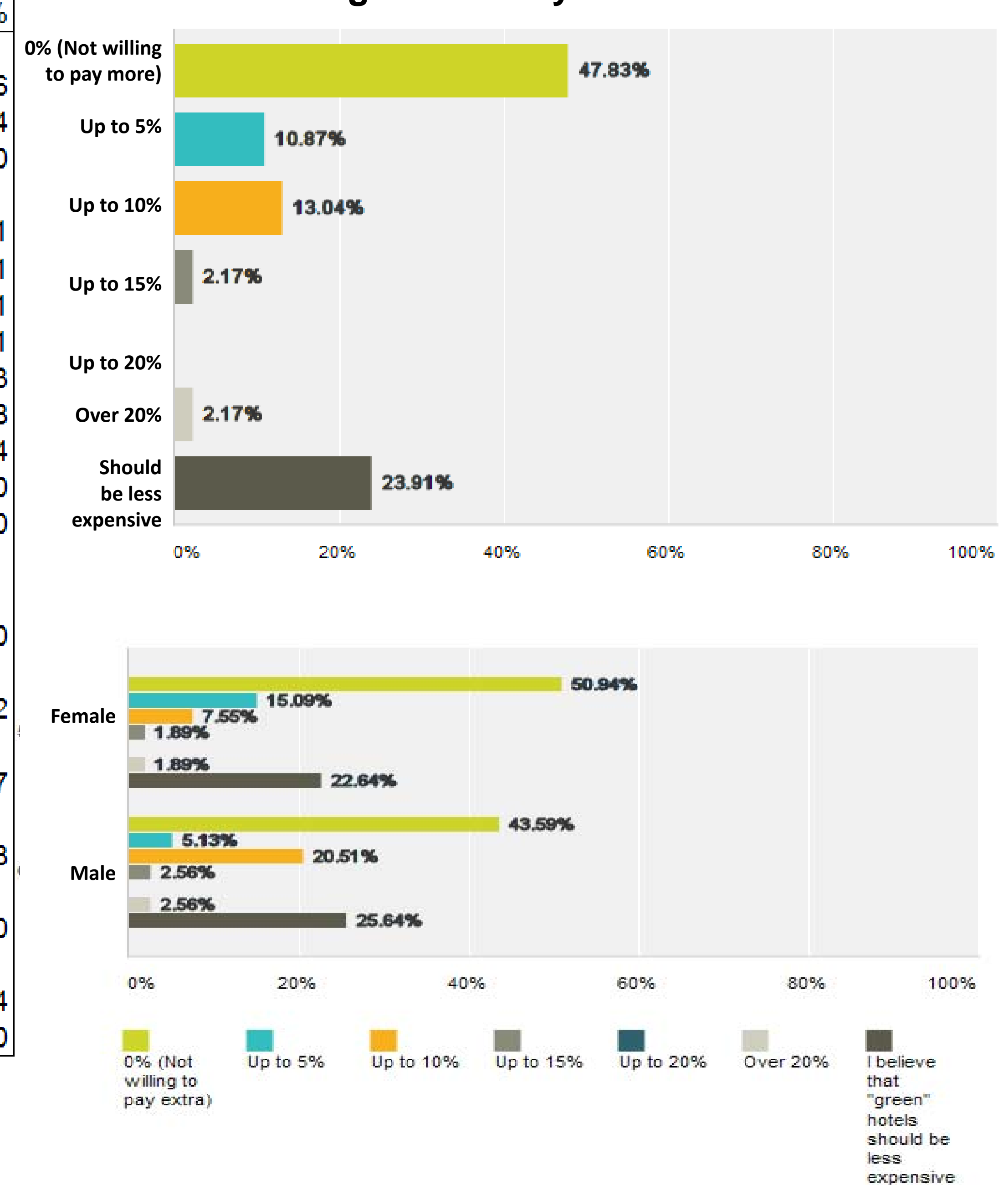
The survey was created on the website SurveyMonkey.com and distributed by social networking. Due to limited time and money resources, the audience was not very large or diverse. 93 surveys were submitted, but only 92 were complete and usable. The data collected was analyzed using SurveyMonkey.com and Microsoft Excel.

Results

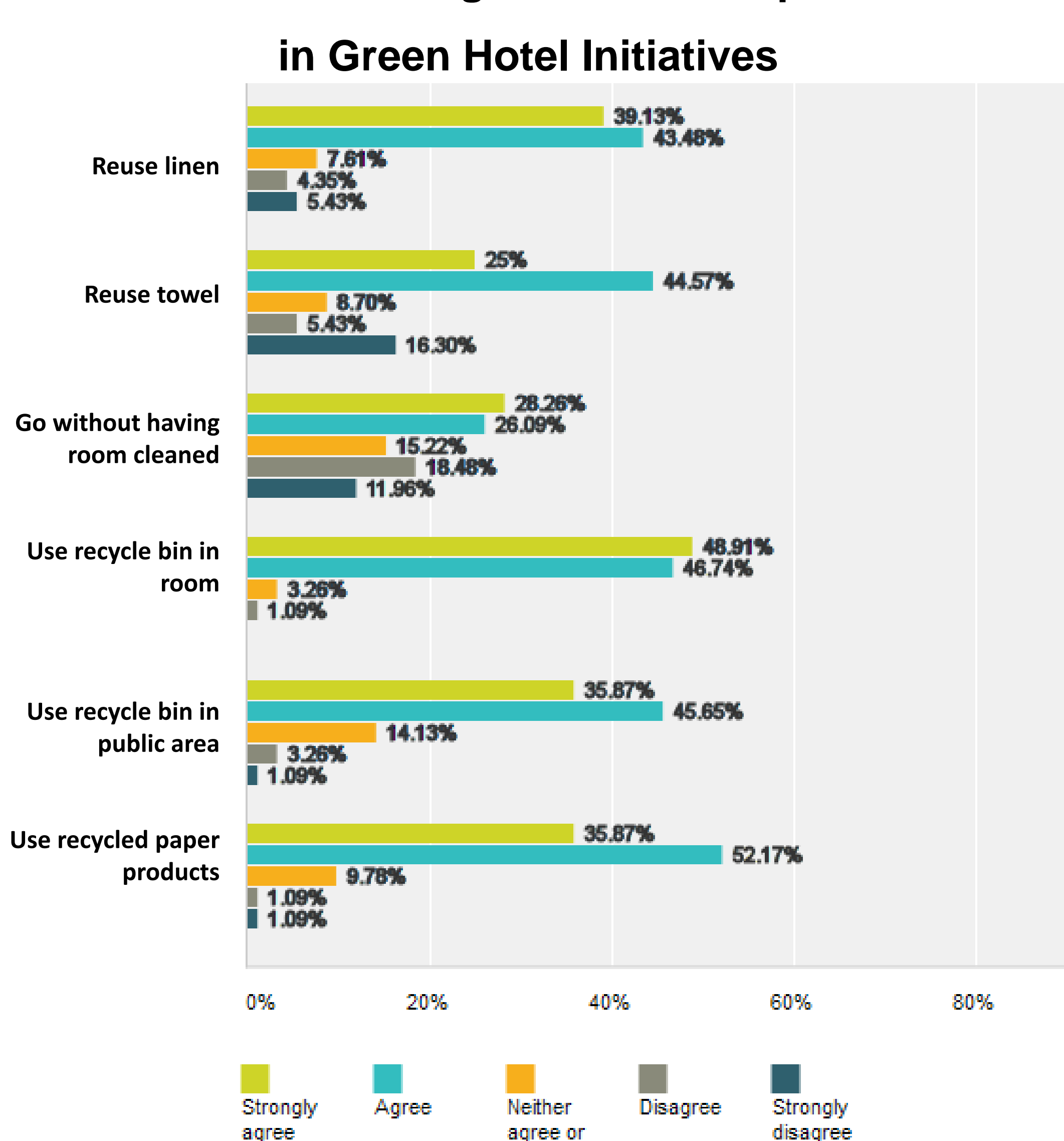
Demographic Profile

Category	Number	%
Age		
Female	53	57.6
Male	39	42.4
Total	92	100.0
Age		
17 or younger	1	1.1
18-24	13	14.1
25-34	36	39.1
35-44	13	14.1
45-54	15	16.3
55-64	9	9.8
65-74	5	5.4
75 or older	0	0.0
Total	92	100.0
Education		
Less than high school degree	0	0.0
High school degree or GED	2	2.2
Some college but no degree	19	20.7
Associate degree	9	9.8
Bachelor degree	46	50.0
Graduate degree	16	17.4
Total	92	100.0

Consumers' Willingness to Pay More for a Green Hotel



Guests' Willingness to Participate in Green Hotel Initiatives



Discussion

Less than 1/3 were willing to pay more for a green hotel

There appeared to be no difference in willingness to pay in regards to age, gender, and education

A t-test: two samples assuming unequal variances was run to see if one gender was willing to pay more for a green hotel over the other. The results showed no statistical difference

The results of this study showed that people who were more eco-friendly in their everyday lives were not more likely to pay a higher premium for a green hotel.

While many people were willing to participate in green initiatives while at a hotel, more than half did not want low-flow showerheads

When it came to low-flow faucets and toilets, only slightly more than half would prefer to see them in guest rooms

About 40% felt that hotels were concerned about the environment, but 58% felt that hotels only participated in green initiatives to save money