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## A Comparative Study of Customer Perceptions Regarding Green Restaurant Practices: Fast Food vs. Upscale Casual

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The current exploratory study was designed to determine the impact that green restaurant practices may have on intention to visit a restaurant and willingness to pay more because of those green practices. The study analyzed a convenience sample of 260 surveys from customers in fast food restaurants and 501 surveys from customers in upscale casual restaurants in the Midwestern United States (U.S.) in order to determine if there were differences in the perception of guests regarding these types of restaurants and their green practices. The findings showed that upscale casual restaurant customers believed they are knowledgeable at a higher level than the fast food restaurant customers about green restaurant practices, have a higher mean rating on the importance of environmental record and recycling in restaurants, and believed that restaurants should use local products when they can. In both groups of customers, there was a positive relationship between green practices utilized at home and customers' willingness to pay more for green restaurant practices as well as their intention to visit the restaurant using green practices. Management implications are discussed.

## **Keywords**

Quick service restaurants, upscale casual restaurants, green practices, customer perception, customer intentions, willingness to pay

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## ABSTRACT

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## INTRODUCTION

The restaurant industry is a large component of the U.S. and world economy. The overall economic impact of the restaurant industry is more than \$1.7 trillion (National Restaurant Association, 2011). The projected revenue for the industry is \$604 billion for 2011 and there are 960,000 foodservice locations projected to be operating by the end of 2011 (National Restaurant Association, 2011).

The restaurant industry is one of the largest segments of the hospitality industry and as such, it is a major consumer of energy, water and other natural resources (Schubert et al., 2010). Some of the ways that restaurants deplete natural resources are: excessive use of energy, use of non-recyclable products, usage of harmful chemicals in the cleaning of the facilities, increasing carbon footprints through the transportation of products and employees to and from the work location. As much as 80% of the U.S. \$10 billion annual energy costs spent in the commercial foodservice industry is wasted through the use of outdated equipment and the generation of excessive heat and noise (Enis, 2007; Schubert et al., 2010).

There are many pressures put on the hospitality industry by consumers, environmental regulations, and managerial concerns regarding being more environmentally friendly (Foster, et al., 2000). There has been increased pressure on organizations due to an increase in consumer environmental consciousness (Kalafatis et al., 1999). The good news is that studies have shown that there is a positive relationship between an organization's environmental strategies and their overall performance. An organization's effective environmental strategies are related to improved employee satisfaction and customer loyalty, reduced costs, and enhanced competitiveness. These practices are called environmental responsible practices (ERP) and they are helping organizations create a favorable image for their customers (Choi, et al., 2009; King & Lenox, 2001; Klassen & McLaughlin, 1999). Many consumers are becoming more aware of environmental issues and are searching for green products and information when they purchase products or services (Bohdanowicz, 2006). In research by the National Restaurant Association (2011) 69% of respondents say that they would visit a restaurant more often if it had organically or environmentally produced products.

There have also been studies that have shown that customers of internationally branded restaurant chains do appreciate the use of local products in menu items, thus showing a concern for the environment (Vieregge et al., 2007). Another study by Choi and Parsa (2006) found that restaurants that engage in green practices can lead to strengthened customer relations and increased harmony with the community. These factors show that by implementing green practices, restaurants can increase the positive thoughts regarding their brand and thereby increase revenues and profitability. Ensuring that customers think positively and emotionally bond with a brand helps to ensure restaurant loyalty and thereby increase the revenues and profits of that brand (Mattila, 2001).

The current study looked at the perceptions of guests in the fast food and upscale casual dining restaurant industry to determine if there are similarities or differences between the two groups related to the perception of green practices utilized in restaurants. The study also looked at the relationship between intention to visit a restaurant more often based on personal green practices through the consumer behavior literature and the Theory of Planned Behavior. It also analyzed customers' willingness to pay for the increased expenses related to the green practices of restaurants based on the customers' personal green practices.

## **LITERATURE REVIEW**

### *Green Practices*

Green has been defined as being environmentally responsible and utilizing practices that minimize the damage done to the environment. Green practices are those things that organizations can do to minimize their carbon footprint and the negative impact that their organization has on the environment. Some of the practices that are often recognized by the public as green or

environmentally responsible are: saving water, saving energy, and reducing solid waste (Manaktola & Jauhari, 2007). Often these practices go unnoticed by the public as they are behind the scenes types of things. What distinguishes a non-green restaurant from a green restaurant focuses on three Rs- reduce, reuse, and recycle and two Es- energy and efficiency (Gilg, Barr, and Ford, 2005). Green restaurants can also purchase energy efficient products and equipment, purchase locally grown produce and materials to minimize the transportation impacts, and engage in environmental protection programs (Schubert, et al, 2010).

The hospitality industry in general has been feeling the pressure from society as well as governmental regulations related to the implementation of more environmentally friendly policies (Bohdanoqicz, 2006; Zurburg, Ruff & Ninemeier, 1995). There has been a large movement across the U.S. and the world for green products and green organizations. There are a large number of consumers that are interested in making green purchases and it can be inferred from this demand that there is a need for restaurants to implement green practices to meet the desires of consumers thus giving restaurants a competitive advantage (Prewitt, 2007; Schubert et al., 2010).

People have been expressing their environmental concern by choosing products and organizations that are green and there are many programs throughout the world that are informing hospitality businesses about the benefits of going green and being environmentally aware and concerned. The Green Restaurant Initiative was implemented by the National Restaurant Association and the Green Hotel Initiative was started by the Coalition for Environmentally Responsible Economies (“Green Hotel Initiative”, 2010; Horovitz, 2008). Other global organizations such as Green Global, APAT (Italian Agency for the Protection of the Environment), or Global Green Hospitality Consortium can educate hospitality organizations on how to implement green practices and to reap the financial benefits from doing so (Bohdanowicz, 2006). These organizations provide information to organizations about green practices and the benefits of implementing these green practices; they also give organizations a way to communicate about their green practices.

The concept of environmental concern is defined as “the degree to which people are aware of problems regarding the environment and support efforts to solve them and/or indicate the willingness to contribute personally to their solution” (Dunlap & Jones, 2002, p.485). There have been studies that have shown that being environmentally concerned is related to green behaviors, whether at home or in deciding where to purchase products or services from. In a study by Mostafa (2006), it was found that being environmentally concerned is related to customer intention to purchase green products. It was also found that people that were willing to be environmentally friendly at home, such as recycling or using products that are safer for the environment were more likely to spend more money on green products and services outside of the home (Laroche, et al., 2001). This echoes some of the consumer behavior literature, especially the Theory of Planned Behavior that states that if people have positive attitudes

about actions and they feel that there are social norms related to that action, they are more inclined to intend to and actually perform the behavior (Ajzen, 1985; Ajzen & Fishbein, 1969; Kalafatis et al., 1999).

In a study by Choi and Parsa (2006), people reward companies that implement green practices and were willing to pay more for using those companies. As many industries are implementing green practices, the restaurant industry is slowly following suit (Deveau, 2009; Dutta, et al., 2008). Despite the fact that restaurants can gain environmentally and economically in the long run by adopting green practices, there is still a hesitation due to lack of knowledge and fear of increased costs by implementing these practices in the restaurant industry (Schubert et al., 2010; Wright, et al., 2011). The current study will add to the research on customer perceptions of green practices and will inform the restaurant industry regarding this issue. The following section discusses the research that has been done in restaurants that utilize green practices.

### *Restaurant Industry Green Practices*

There has been increased pressure by consumers to implement green practices in the restaurant industry and yet, there is a paucity of research regarding whether there are differences in customer perception of green practices related to a variety of restaurant types and segments. To date, the studies have concentrated on casual dining restaurant customers (Hu et al., 2010; Schubert et al., 2010).

The current study analyzed the perceptions of guests classified as “heavy users” from two very distinct restaurant segments- fast food and upscale casual. Heavy users for the purpose of the current study are defined as those customers that have self reported eating out 5-12 times in the current month, at the same type of restaurant segment as their surveys were taken in. These restaurant segments are distinguished by numerous factors, but the primary differences are that fast food restaurants have more concise menus, faster service standards, typically have lower prices with customers pre-paying before receiving their meals, and the restaurants tend to have lower expectations from guests related to service and food quality (Muller & Woods, 1994). Upscale casual dining restaurants are those that have a more diverse menu, a larger variety of options, full alcohol service, more personalized service standards, and a higher level of expectations from guests. The check average for fast food restaurants are typically \$5-8 per person and the average check for a the upscale casual restaurants are \$25-35 per person.

In a study of casual dining restaurant customers by Schubert et al. (2010), it was found that the most important green practices for restaurants according to the respondents are reducing energy and waste, using biodegradable or recycled products, and serving locally grown food. The least important green practices for the respondents were donating to environmental projects and paying fees to reduce their ecological footprint. Consumers also believed that it was good for restaurant companies to protect the environment and they believed

that dining at green restaurants will be healthier for them. They also believed that dining at green restaurants will help to protect the environment. An overarching finding from the Schubert et al. (2010) study was that a large number of customers conveyed that it was essential that the quality of the food did not decrease because of green practices. The respondents stated that the food quality was the most important restaurant attribute for them. They were not willing to sacrifice quality for the green practices of the restaurant.

One of the struggles that restaurants have is how to communicate with guests regarding their green practices. In a hotel, it is a little easier to see the practices that are happening and it is easier to convey these practices to the guests through communication in the hotel rooms. In a restaurant, with most of the activity that would be green happening behind the scenes, this is difficult to do. One of the challenges in the restaurant sector will be to ensure that customers know what is happening related to green and to ensure that they buy into the benefits for the environment and the benefits for customers of these practices (Schubert et al., 2010). It has been determined that implementing and communicating about green practices to employees and guests may result in increased employee satisfaction and commitment to the organization, which in turn may lead to better service and increased customer satisfaction, especially in a service oriented business that relies on employee satisfaction to ensure customer satisfaction (Schubert et al., 2010).

The following section discusses previous research on customers' willingness to pay for green practices. This is important for organizations to know as they decide where to invest their money and how to ensure that customers value the changes that they may make in their organization.

### *Willingness to Pay*

It is important to determine the willingness of consumers to pay additional charges for using a green organization's products and services. The implementation of green practices such as using organic products, using locally produced products, implementing recycling programs, reduction of the use of natural resources, costs money to restaurants. The willingness of guests to pay for some of those green practices will be helpful to the restaurant.

The previous research that has been done in the hospitality industry regarding consumers' willingness to pay is not consistent. Most of the research relates more specifically to the lodging industry rather than the restaurant industry. Some of the research states that consumers are more hesitant to pay a premium for environmentally friendly products (Kasim, 2004; Manaktola & Jauhari, 2007), while other research states that consumers are willing to pay a premium for green products (Choi et al., 2009; Schubert, 2010; Yesawich, 2009).

Manaktola and Jauhari (2007) found in their study of customers in India that the majority of customers (85%) believed that the hotel should pay for at least part of the additional costs that would result from implementing green practices. Of these respondents, more than 50% believed that the hotel should

bear all of the cost for implementing green practices. Earlier research done by Lord, Parsa, and Putrevue (2004) showed that consumers may resist paying premium prices for green products. The study showed that higher prices for green products or businesses must reflect customer sensitivity for price increases.

In a study by Choi et al. (2009), hotel guests in Greece and the U.S. were surveyed and found that people were willing to pay a premium price for companies that used green practices. The guests from Greece were willing to pay more for green hotel practices and were more concerned than the U.S. guests about whether companies were implementing green practices or not. The respondents in Greece stated that they were more likely to choose hotels that implemented ERP and were willing to pay approximately six percent more to stay at these hotels (Choi et al., 2009).

Research specifically in the restaurant industry has been rarer and is currently being broadened. In a study of almost four hundred restaurant customers done by Dutta et al. (2008), they found in India and the U.S. that there were different motives, but in general a majority of customers were willing to pay more money for restaurants implementing green practices. Approximately 50% of customers studied from the U.S. were willing to pay up to 3% above the regular menu prices, while 15% were willing to pay more than 10% above regular menu prices in restaurants that utilized green practices. Customers in India were even more willing to pay higher prices with 60% of the respondents willing to pay more than 10% above the regular menu prices. This shows that regardless of the motive and location, a majority of restaurant customers in this study were willing to pay higher prices for green practices in restaurants.

Recent research by Schubert et al. (2010) has shown that consumers are willing to pay a higher price for restaurants that implement green practices. Almost 20% of the sample was willing to pay up to 10% more for those restaurants that implemented green practices. Despite these positive findings, it is important to expand the research to include a variety of different types of restaurants and to expand the study across multiple locations and restaurant segments. Since the research has been mixed, it is important to continue to search for consistency and commonalities among the research. The current study will help to inform management practices related to green practices and to determine whether consumers would be willing to pay more money to visit restaurants that implement green practices.

#### *Personal Green Practices and Intent to Visit*

There have been studies that have shown that being environmentally concerned is related to green behaviors, whether at home or in deciding where to purchase products or services from. In a study by Mostafa (2006), it was found that being environmentally concerned is related to customer intention to purchase green products. It was also found that people that were willing to be environmentally friendly at home, such as recycling or using products that are

safer for the environment, were more likely to spend more money on green products and services outside of the home (Laroche, et al., 2001).

Dutta (2008) looked at people's consumerism and found that through their character and values people try to improve the world through their behaviors. This shows that people that have a belief in being environmentally friendly and green will practice those things in their personal life and also will seek out those practices in businesses that they use. Choi and Parsa (2006) found that people have positive attitudes and behavioral intentions for companies that use socially responsible marketing and market their socially responsible practices. Choi and Parsa (2006) also found that attitudes are formed through experiences, so if people have positive attitudes toward green, they may respond more favorably to businesses that utilize green practices and promote those green practices.

In the Theory of Planned Behavior (Ajzen, 1985; Ajzen & Fishbein, 1969; Kalafatis et al., 1999), consumer behavior is defined through a model utilizing three constructs to help explain intention and behavior. These three constructs are attitudes toward the behavior (how favorably or unfavorably a person considers the behavior to be), subjective norms (the external and internal pressure a person feels to engage in the behavior), and perceived behavioral control (the obstacles or difficulties the person may perceive in performing the actual behavior and how the person feels that they can solve these difficulties). People act in a certain way or have intentions to act in a certain way related to the interaction of these attitudes and beliefs. Through personal attitudes and social norms, people choose to do things that make them feel pride and to feel good about themselves, versus doing things that make them feel shameful or self-reproach. The current research study looks at the personal green practices of customers in order to determine what their values are related to green practices. These practices are then correlated with their response to the question about their intent to visit the restaurant more often because of the green practices of the restaurant.

Through research in the Theory of Planned Behavior and other consumer behavior research done by Ajzen and Fishbein (1969), the findings show that attitudes, norms, and perceived control were found to predict behavioral intentions, which then led to actual behavior. The behavioral intentions model of consumer behavior cites that attitude or personal component and subjective norms determine behavioral intentions (Fishbein & Ajzen, 1975; Lee and Green, 1991). This is important for restaurant operators to utilize because if they can determine guest attitudes and social norms related to green practices, they can determine intention to visit.

### **Research Questions**

There has not been a study done to date comparing "heavy user" customers that frequent fast food restaurants and upscale casual restaurants. Heavy users for the purpose of the current study are defined as those customers

that have self reported going out to eat in the current month 5-12 times at the same type of restaurant segment as their surveys were taken in. The current exploratory study was done in order to address the following research questions:

- 1) What are the differences between fast food and upscale casual restaurant guests regarding the level of importance of various attributes related to selecting a restaurant?
- 2) What are the differences between fast food and upscale casual restaurant guests regarding perceptions of green practices and willingness to pay in restaurants?
- 3) Is there a relationship between guests' green practices used at home and their intention to visit the restaurant based on the restaurants' green practices?
- 4) Is there a relationship between guests' willingness to pay more for green restaurant practices and their personal green practices?

## **Methodology**

The following exploratory study proposes to address a gap in the research by attempting to determine the perceptions of restaurant customers regarding green practices. In order to add to the research, the current study analyzes the fast food "heavy user" customer perception as well as the upscale casual dining "heavy user" restaurant customer. An instrument was developed that includes questions relating to Level of Importance of Restaurant Attributes adapted from Weiss (2004), Statements of Green Practices (Personal and Professional), Willingness to Pay items adapted from Dutta (2008), and Demographics using a Likert-type 5 point scale.

The restaurants were all operated and located in the Midwest. There were four upscale casual restaurants that were used to draw the random sampling of customers from. There were an equal number of surveys (150) distributed in each of the four locations during lunch and dinner hours. This was done to account for variances between geo-demographical factors and increase the external validity of the study. This study surveyed upscale casual restaurant guests (n = 501) to determine their perceptions of green practices and attitudes about willingness to pay for such practices. A total of 600 surveys were administered to guests with 501 surveys completed, therefore the response rate of usable surveys was 84%.

The fast food portion of the study, using a convenience sample, surveyed random guests in a quick service restaurant chain comprised of 25 restaurants in the Midwest. The restaurants were randomly chosen each day throughout the chain. Every second guest that ate inside the restaurant during randomly chosen times was asked to complete a survey about their perceptions of green practices. The restaurant group allowed the researchers access to the restaurants at various times during a one month period to conduct surveys with guests. These surveys were completed Monday-Friday during all parts of the day

and evening in order to get a representative sample of guests. The survey took approximately five minutes to complete. There were 320 surveys administered with 260 useable responses for an 81.25% response rate. The data was analyzed using descriptive statistics and correlation analysis in order to respond to the research questions. Statistics used to analyze the data include descriptive, correlation analysis, and independent samples t-test using SPSS version 18.

## **Results**

There were a total of 761 completed surveys out of a total of 920 surveys administered for an overall response rate of 82.72%. Of those surveys, 260 (34.2%) were from the fast food restaurants and 501 (65.8%) were from the upscale casual restaurants. The majority of the respondents were female (53.2%), while 45.2% were male. There were several age groups represented in the sample, with the largest age groups being 19-25 years old (17.2%), 41-50 years old (17.3%), 51-60 years old (17.2%), and 60 years and above representing 16.3% of the respondents. The majority of the respondents had a college degree (28.6%) and advanced college degrees (24.7%). The majority of the respondents (44.9%) decided on the restaurant that they would eat in by themselves rather than taking advice from other people. Another demographic question asked was about the number of times during the past month that people had eaten in a restaurant similar to the restaurant they were currently visiting and that response varied from 1-4 times to 5 to 12 times per month. The respondents were divided into two groups, "light users" and "heavy users" based on those breakdowns. When analyzing the two different groups of respondents, one of the biggest differences is the larger number of more highly educated people and the older demographic that eats at upscale casual restaurants. This is typical of demographics that normally frequent the different restaurant segments. See Table 1 below for more demographic information.

**Table 1:  
Demographics of Respondents (n=761)**

Variables	Number	Percent				
<b>Restaurant Type</b>						
Fast Food	260	34.2%				
Upscale Casual	501	65.8%				
	Total	Total	Fast	Fast	Upscale	Upscale
<b>Gender</b>						
Female	405	53.2 %	145	57.1%	260	52.5%
Male	344	45.2 %	109	42.9%	235	47.5%
<b>Age</b>						
18 and under	46	6.1 %	24	9.3%	22	4.4%
19-25	131	17.4 %	72	28.0%	59	11.9%
26-30	78	10.2 %	21	8.2%	57	11.5%
31-35	61	8.1 %	22	8.6%	39	7.8%
36-40	51	6.8 %	22	8.6%	29	5.8%
41-50	132	17.5 %	40	15.6%	92	18.5%
51-60	131	17.4 %	28	10.9%	103	20.7%
61 or older	124	16.4%	28	10.9%	96	19.3%
<b>Education</b>						
Grade School	13	1.7 %	4	1.6%	9	1.8%
High School / Technical	116	15.4 %	66	25.7%	50	10.1%
Some College	156	20.7 %	62	24.1%	94	18.9%
2-year College	51	6.7 %	25	9.7%	26	5.2%
4-year College	218	28.9 %	58	22.6%	160	32.2%
Advanced Degree	188	24.9 %	31	12.1%	157	31.6%
<b>Who Made</b>						
Business	79	10.6%	13	5.1%	66	13.5%
Friend	165	22.1 %	57	22.3%	102	20.9%
Family	159	21.3 %	30	11.7%	135	27.6%
Self	342	45.9 %	156	60.9%	189	38.0%
<b># of Times</b>						
1-4 (Light Users)	230	30.2 %	88	33.8%	142	28.3%
5-12 (Heavy)	531	69.8%	172	66.2%	359	71.7%

\*Totals may not add up to 100% due to non-responses

Customers were asked to rate the importance of a variety of restaurant attributes used when choosing a restaurant when they go out to eat. Independent samples t-tests were run on the differences in the level of importance of various restaurant attributes between the “heavy users” of fast food and the “heavy

users” of upscale casual restaurants. There were some statistically significant differences worth noting. While both groups of customers rated the attributes of food quality and service quality with the highest mean importance rating, the upscale casual guest rated food quality significantly higher with 4.78 out of 5 (very important) as compared to the fast food guests rating of 4.54 out of 5. This was a statistically significant difference ( $t=-3.712$ ,  $df=526$ ,  $p=.000$ ). The other statistically significant differences were in the importance of price with fast food guests rating that as 3.99 out of 5, which was statistically significantly higher than the upscale casual guests ( $M=3.46$ ,  $t=4.875$ ,  $df=516$ ,  $p=.000$ ). Interesting findings related to green is that upscale casual guests rated “restaurant has recycling bins” ( $M=3.89$ ) as more important than fast food guests ( $M=2.60$ ) at a statistically significant level ( $t=-13.648$ ,  $df=522$ ,  $p=.000$ ) and “environmental record” was rated higher by upscale casual “heavy users” ( $M=4.68$ ) than fast food “heavy users” ( $M=3.25$ ) ( $t=-17.374$ ,  $df=522$ ,  $p=.000$ ). Fast food guests also rated restaurant appearance as more important and appropriate portion sizes as less important than the upscale casual guests. See Table 2 below for more details.

**Table 2:  
Differences In Fast Food and Upscale Casual Dining Respondents  
Rating of Important Restaurant Characteristics**

Level of Importance	Fast Food			Upscale Casual			df	Sig.
	N	M	SD	N	M	SD		
Food Quality	172	4.54	.818	356	4.78	.591	515	.000
Service Quality	170	4.34	.864	355	4.39	.768	512	.532
Price	168	3.99	1.013	350	3.46	1.241	505	.000
Appropriate Portion Size	171	3.93	1.003	353	4.14	.805	511	.010
Restaurant Appearance	172	3.93	.998	351	3.35	1.228	510	.000
Convenient Location	171	3.87	1.051	354	3.91	.960	513	.619
Environmental Record	170	3.25	1.244	354	4.68	.623	511	.000
Provided Info on Local Offerings	169	2.80	1.156	350	2.99	1.344	506	.065
Has Recycle Bins	169	2.60	1.186	355	3.89	.896	512	.000

1=unimportant, 3=somewhat important, 5= very important

Respondents were also asked about their perceptions about green practices in restaurants. Using a Likert type scale of 1-5 where 1=strongly disagree and 5=strongly agree, in general, respondents in the fast food

restaurants agreed that they could be more informed about green activities (M=3.81) which was statistically significantly higher than upscale casual guests (M=3.45,  $t=3.437$ ,  $df=525$ ,  $p=.001$ ). Other statistically significant differences of note were that upscale casual restaurant guests believed that restaurant companies should use local foods when possible (M=4.03) at a higher level than fast food customers (M=3.78,  $t=-2.425$ ,  $df=517$ ,  $p=.016$ ). Upscale casual guests believed that restaurant companies should use organic products whenever possible (M=3.39) more so than fast food restaurant customers (M=3.17,  $t=-2.095$ ,  $df=521$ ,  $p=.037$ ). More information on perceptions of green practices in restaurants can be found in Table 3 below.

**Table 3:**  
**Differences In Perceptions of Fast Food and Upscale Casual Dining Respondents Regarding Green Practices in Restaurants**

Green Practices	Fast Food			Upscale Casual			df	Sig.
	N	M	SD	N	M	SD		
I am well informed about environmental problems	172	3.56	.974	356	3.75	.988	526	.042
I feel I could be more informed about green activities	170	3.81	.985	357	3.45	1.188	525	.001
I prefer to purchase products that are environmentally friendly (safe)	171	3.56	1.035	354	3.69	1.007	523	.167
Being environmentally conscious is part of my daily life	172	3.16	1.10	357	3.34	1.058	527	.060
I prefer to eat at restaurants that are environmentally friendly	172	3.19	1.020	359	3.24	1.130	529	.618
I prefer to purchase an environmentally safe product even if it is somewhat more expensive	171	3.15	1.120	358	3.23	1.121	527	.396
I prefer to purchase an environmentally safe product even if it is somewhat lower in quality	169	2.56	1.079	355	2.35	1.113	522	.037
I believe that a restaurant should cover the costs of the environmentally safe products	171	3.37	1.023	355	3.22	1.149	524	.151
I believe that the organization and customers should share the cost of environmentally safe products	171	3.15	1.117	350	3.01	1.149	519	.195

I am conscious about purchasing services from organizations that practice “green initiatives”	167	2.89	1.084	348	2.98	1.141	513	.377
I am confident that when an organization says they are practicing “green initiatives” they are helping to protect the environment	168	3.30	1.075	355	3.22	1.154	521	.478
I believe that restaurant companies should use local products whenever possible	165	3.78	1.121	354	4.03	1.076	517	.016
I believe that restaurant companies should use organic products whenever possible	167	3.17	1.155	356	3.39	1.124	521	.037
I believe that it is important that restaurants have a “green certification”	168	2.94	1.151	355	2.93	1.183	521	.921
I believe that I would visit a restaurant more often because of my perceptions of the green activities of that restaurant	169	3.02	1.220	357	2.93	1.183	524	.187
I am willing to pay up to 1% more for environmentally safe products	170	3.59	1.312	355	3.54	2.020	523	.741
I am willing to pay up to 5% more for environmentally safe products	170	2.92	1.431	357	2.71	1.313	525	.093
I am willing to pay up to 10% more for environmentally safe products	169	2.39	1.341	356	2.13	1.171	523	.025
I am willing to pay more than 10% more for environmentally safe products	169	2.13	1.238	349	1.91	1.117	516	.047

1=strongly disagree, 3=neither agree or disagree, 5= strongly agree

When customers were asked questions regarding ‘willingness to pay’ for green practices in restaurants, both groups agreed that they were willing to pay up to 1% more. This support dropped when it came to paying up to 5%, 10%, and more than 10% more. In each case, the customers of the upscale casual restaurant were statistically significantly less willing to pay more for green

practices, despite the fact that they knew more about green practices and believed that restaurants should use local products. This seems to contradict what would logically be thought. Fast food customers were more agreeable with paying more for green restaurant practices (see Table 3).

In determining the answer to the two research questions, is there a relationship between guests' green practices used at home and their intention to visit the restaurant based on the restaurants' green practices? And is there a relationship between guests' willingness to pay more for green restaurant practices and their personal green practices? a correlation analysis was run for both the fast food customers and the upscale casual customers. The correlation between how often people recycle at home and whether they are willing to pay (WTP) up to 1% more for environmentally safe products ( $r=.346$ ), 5% more ( $r=.317$ ) and up to 10% more ( $r=.352$ ) were all very moderate for fast food guests. The correlation for upscale casual guests for these same variables were lower at ( $r=.213$ ) for WTP up to 1% more, ( $r=.245$ ) for WTP up to 5% more, and only ( $r=.155$ ) for WTP up to 10% more for environmentally safe products.

There was a stronger correlation (although still moderate) for fast food guests when it came to how often they purchased energy efficient products at home and their willingness to pay more for green practices. For WTP up to 1% more  $r=.399$ , for WTP up to 5% more  $r=.365$ , and for WTP up to 10% more  $r=.395$ . For the same correlation with upscale casual guests there was a weak positive relationship that was slightly higher than the one related to recycling at home, WTP up to 1% more  $r=.233$ , the WTP up to 5% more  $r=.259$ , and for WTP up to 10% more  $r=.202$ .

The only statistically significant correlations regarding buying items in bulk related to the fast food respondents and not to the upscale casual respondents. The WTP up to 1% more had a moderate positive correlation of  $r=.383$ . Both the WTP up to 5% more ( $r=.312$ ) and WTP up to 10% more for environmentally safe products ( $r=.257$ ) had a weak positive relationship.

Regarding the correlation between personal green practices at home and customers intention to visit a restaurant more often because of the green practices of a restaurant, the fast food respondents had a moderately positive relationship between the variables. For how often they recycle products,  $r=.310$ ; purchasing energy efficient products at home  $r=.383$ ; and how often they buy items in bulk  $r=.254$ . The upscale casual customer had  $r=.231$  between the variables of how often do you recycle products at home and intention to visiting a restaurant more because of green practices. Purchasing energy efficient products at home was moderately and positively correlated with intention to visit a restaurant more with  $r=.316$ . There was not a significant correlation between buying items in bulk and intention to visit a restaurant. For more details, see Tables 4 and 5 below.

**Table 4:**  
**Correlation Matrix for Fast Food Guest Perception**

	How often do you recycle products at home?	How often do you purchase energy efficient products at home?	How often do you buy items in bulk?	WTP 1% more for environmentally safe products	WTP 5% more for environmentally safe products	WTP 10% more for environmentally safe products	WTP more than 10% more for environmentally safe products	I believe that I would visit a restaurant more often because of my perceptions of the green activities of that restaurant
How often do you recycle products at home?	1.0	.571**	.431**	.346**	.317**	.352**	.295**	.310**
How often do you purchase energy efficient products at home?		1.0	.461**	.399**	.365**	.395**	.310**	.383**
How often do you buy items in bulk?			1.0	.383**	.326**	.312**	.257**	.254**
WTP 1% more for environmentally safe products				1.0	.718**	.502**	.341**	.429**
WTP 5% more for environmentally safe products					1.0	.817**	.642**	.536**
WTP 10% more for environmentally safe products						1.0	.861**	.522**
WTP more than 10% more for environmentally safe products							1.0	.427**
I believe that I would visit a restaurant more often because of my perceptions of the green activities of that restaurant								1.0

\*\* P < .01 (2-tailed)

**Table 5:  
Correlation Matrix for Upscale Casual Guest Perception**

How often do you recycle products at home?	1.0	How often do you purchase energy efficient products at home?	.493**	.082	How often do you buy items in bulk?	.016	WTP 1% more for environmentally safe products	.213**	.245**	WTP 5% more for environmentally safe products	.155**	WTP 10% more for environmentally safe products	.060	WTP more than 10% more for environmentally safe products	.231**	I believe that I would visit a restaurant more often because of my perceptions of the green activities of that restaurant
How often do you purchase energy efficient products at home?	1.0		1.0	.351**		.233**		.259**			.202**		.090		.316**	
How often do you buy items in bulk?				1.0		.038		-.001			.038		.037		.046	
WTP 1% more for environmentally safe products						1.0		.412**			.342**		.202**		.288**	
WTP 5% more for environmentally safe products								1.0			.786**		.599**		.514**	
WTP 10% more for environmentally safe products											1.0		.830**		.468**	
WTP more than 10% more for environmentally safe products													1.0		.416**	
I believe that I would visit a restaurant more often because of my perceptions of the green activities of that restaurant															1.0	

\*\* = P<.01 (2-tailed)

## Discussion and Implications

The current study brings to light interesting information regarding guest perceptions of green practices and their willingness to pay for green practices in restaurants. The variety of restaurant segments represented here adds value to the research that has been done on similar subjects. It also allows for some comparison of customers that are “heavy users” with different views on things based on the type of restaurant that they frequent.

In looking at the data regarding the differences between fast food and upscale casual restaurant guests regarding the level of importance of various attributes related to choosing a restaurant, the upscale casual guest rated food quality significantly higher as compared to the fast food guests’ rating. The other statistically significant differences were in the importance of price with fast food guests which was statistically significantly higher than the upscale casual guests. This finding may be due to the income differential that may occur between customers that frequent fast food restaurants and those that frequent upscale casual restaurants. The demographics show a difference in guests related to age and education level, both higher in the upscale casual respondents. This fact could indicate a reason for the difference in the rating of price to the respondents. In general, it appears from the data that fast food customers are more concerned with price and restaurant appearance in their decision. Upscale casual guests rated environmental record and whether the restaurant has recycling bins as more statistically significant in importance when choosing a restaurant. Neither group had much of an interest in whether the restaurant provided information on local offerings for products.

The primary differences between fast food and upscale casual restaurant guests regarding perceptions of green practices and willingness to pay responses center around the fact that fast food guests stated that they could be more informed about green activities at a higher level than upscale casual restaurant customers. Despite the fact that upscale casual restaurant guests did not have an interest in a restaurant providing information on local offerings for products, they did believe that restaurants should use local and organic products whenever possible, thus it seems that they place a higher stated value on local products, organic products, and green practices than fast food customers did.

Despite the educational and age differences in the customers in both segments, there were some surprising statistically significant differences in perceptions about willingness to pay more. When customers were asked questions regarding ‘willingness to pay’ for green restaurants, both groups agreed that they were willing to pay up to 1% more. This support dropped when it came to paying up to 5% and 10%, and more than 10% more. In each case, the customers of the upscale casual restaurant were statistically significantly less willing to pay more for green practices, despite the fact that they knew more about green practices and believed that restaurants should use local and organic products. This seems to contradict logical thought. Fast food customers were more agreeable with paying more despite the assumption that their income

would be lower due to their education level and age. Fast food customers also agreed to a higher level with the statement about visiting a restaurant more often based on the perceptions of green activities of the restaurant. One reason that this finding occurred in the current study could be the lower overall cost of going out to eat at a fast food restaurant compared to an upscale casual restaurant- 5% added onto a \$8 check would be 40 cents, compared to 5% on a \$30 check would be \$1.50. Future research could look at the willingness to pay a specific dollar amount for a restaurant using green practices rather than percentage increases for restaurants that implement green practices. Future research in this area could be done to ascertain whether there is a price-value relationship that occurs in restaurants related to personal income. Future surveys should ask about the income level of the respondents in order to determine if that has an impact on the willingness to pay for green practices or the importance of the green practices used in restaurants.

Related to the research question “Is there a relationship between guests’ green practices used at home and the perception of whether they would visit a restaurant more often based on green practices?” the study showed that the question related to purchasing energy efficient products at home had the strongest positive correlation with visiting a restaurant more often for fast food and upscale casual customers. In addition the fast food customer respondents reported a positive correlation between recycling and intention of visiting a restaurant more often. This should indicate to managers of restaurants that they should target groups that are interested in recycling and purchasing energy efficient products to market to in order to increase their visibility among these groups of people. In looking at the Theory of Planned Behavior Literature related to attitudes and subjective norms, it is clear that people include their own personal values into the selection of organizations to frequent (Kalafatis et al., 1999). Using green practices themselves and integrating their personal values on their choices helps guests choose organizations that espouse their personal values. Being green is a socially worth act that people, influenced by society and others in their referent groups, often choose to undertake (Kalafatis et al., 1999). Future research could also look at different restaurant segments and demographics in order to determine the impact of subjective norms and how that might influence the intention to revisit and willingness to pay of a variety of guests.

Is there a relationship between guests’ willingness to pay more for green restaurant practices and their personal green practices? In general, the research found positive correlation between respondents’ personal home practices and their willingness to pay more at green restaurants. This intuitively makes sense as customers who practice green at home tend to value those initiatives and the research shows that this is the case. The relationships are moderate for both upscale casual customers and fast food customers, but fast food customers have stronger correlation between the variables. This could again help with targeting marketing efforts and targeting groups to reach out to when implementing green initiatives in a restaurant.

In general, since there is a positive correlation between personal green practices and the intention to visit a green restaurant more often and a willingness to pay more for green practices, it would be important for restaurants to encourage personal green practices and to try to advertise to groups that encourage environmentalism and green practices.

The limitations of the current study are that the study only looked at the “heavy users” of two segments of the restaurant industry. There could also have been a self-selection bias that could have influenced the results since guests could have decided not to complete the survey once they knew that the survey was about green practices if they did not have an interest in green practices. Another limitation is that neither of the restaurant groups used in the current study advertised that they utilized green practices in their restaurants. In previous studies, it has been determined that greater communication with guests is important in order to increase consumers’ willingness to pay more for green practices (Choi et al., 2009).

The implications of the current study are that restaurants need to know their customers and know what their interests are in order to make the most of their green initiatives. Fast food customers place a high importance on food quality, price and restaurant appearance when choosing a restaurant. Upscale casual customers place a high importance on food quality, environmental record, and service quality when choosing a restaurant. Upscale casual customers also believe that they are knowledgeable about green practices, want restaurants to use local and organic products when possible, but unfortunately are not as willing to pay a large premium price to help encourage restaurants to implement green practices.

## References

- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior, in Kuhl, J. and Beckmann, J. (Eds.), *Action-Control: From Cognition to Behaviour*, Heidelberg: Springer-Verlag, p. 11-39.
- Ajzen, I., & Fishbein, M. (1969). The prediction of behavioural intentions in a choice situation. *Journal of Experimental Social Psychology*, 24(3), 207-224.
- Bohdanowicz, P. (2006). Environmental awareness and initiatives in the Swedish and Polish hotel industries- survey results. *Hospitality Management*, 25(4), 662-682.
- Choi, G., & Parsa, H. G. (2006). Green Practices II: Measuring Restaurant Managers' Psychological Attributes and Their Willingness to Charge for the "Green Practices". *Journal of Foodservice Business Research*, 9(4), 41-63.
- Choi, G., Parsa, H.G., 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, p. 93-112.
- Deveau, D. (2009, January). Fight the power. *Foodservice and Hospitality*, 41(11), 47-52.
- Dunlap, R.E., & Jones, R. (2002). Environmental concern: Conceptual and measurement issues. In *Handbook of Environmental Sociology*. Eds. R. Dunlap and W. Michelson. London: Greenwood Publishers.
- Dutta, K., Umashankar, V., Choi, G., & Parsa, H.G. (2008). A Comparative Study of Consumers' Green Practice Orientation in India and the United States: A Study from the Restaurant Industry. *Journal of Foodservice Business Research*, 11(3), 269-285.
- Enis, M. (2007). Cooking green. *SN: Supermarket News*, 55(35), 34-35.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Foster, S., Sampson, S., & Dunn, S. (2000). The impact of customer contact on environmental initiatives for service firms. *International Journal of Operations & Production Management*, 20(2), 187-203.
- Gilg, A., Barr, S., & Ford, N. (2005). Green consumption or sustainable lifestyles? Identifying the sustainable consumer. *Futures*, 37, 481-504.
- Green Hotel Initiative. (2010). Retrieved on July 28, 2010 from <http://www.ceres.org//Page.aspx?pid=761>.
- Horowitz, B. (2008). Can restaurants go green, earn green? USA Today. Retrieved on July 13<sup>th</sup>, 2011 from

[http://www.usatoday.com/money/industries/environment/2008-05-15-green-restaurants-eco-friendly\\_n.htm](http://www.usatoday.com/money/industries/environment/2008-05-15-green-restaurants-eco-friendly_n.htm)

- Hu, H., Parsa, H.G., & Self, J. (2010). The dynamics of green restaurant patronage. *Cornell Hospitality Quarterly*, 51(3), 344-362.
- Kalafatis, S.P., Pollard, M., East, R., Tsogas, M.H. (1999). Green marketing and Ajzen's theory of planned behavior: A cross market examination. *Journal of Consumer Marketing*, 16(5), 441-460.
- Kasim, A. (2004). Socio-environmentally responsible hotel business: Do tourists to Penang Island, Malaysia care? *Journal of Hospitality & Leisure Marketing*, 11(4), 5-28.
- King, A.A., & Lenox, M.J. (2001). Does it really pay to be green? An empirical study of firm environmental and financial performance. *Journal of Industrial Ecology*, 5(1), 105-116.
- Klassen, R.D., & McLaughlin, C.P. (1999). Integrating environmental issues into the mainstream: An agenda for research in operations management. *Journal of Operations Management*, 17(5), 575-598.
- Laroche, M., Bergeron, J., & Barbaro-Forleo, G. (2001). Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of Consumer Marketing*, 18(6), 503-520.
- Lee, C., & Green, R.T. (1991). Cross-cultural examination of the Fishbein behavioral intentions model. *Journal of International Business Studies*, 22(2), 289-305.
- Lord, K.R., Parsa, H.G., and Putrevu, S. (2004). Environmental and Social Practices: Consumer Attitude, Awareness and Willingness to Pay. In D. Scammon, M. Mason, and R. Mayer (Eds.), *Marketing and Public Policy: Research Reaching New Heights* (pp. 25-28). Salt Lake City, UT: American Marketing Association
- Manaktola, K., & Jauhari, V. (2007). Exploring consumer attitude and behavior towards green practices in the lodging industry in India. *International Journal of Contemporary Hospitality Management*, 19(5), 364-377.
- Mattila, A.S. (2001). Emotional bonding and restaurant loyalty. *Cornell Hotel and Restaurant Administration Quarterly*, 42(6), 73-79.
- Mostafa, M. (2006). Antecedents of Egyptian consumers' green purchase intentions: A hierarchical multivariate regression model. *Journal of International Consumer Marketing*, 19(2), 97-126.
- Muller, C.C., & Woods, R.H. (1994). An expanded restaurant typology. *Cornell Hotel and Restaurant Administration Quarterly*, 35(3), 27-37.

- National Restaurant Association (2011). Restaurant industry facts at a glance. Retrieved from <http://www.restaurant.org/research/facts/> on May 10<sup>th</sup>, 2011.
- Prewitt, M. (2007). Eco-friendly restaurants take steps to earn seals of approval from third-party certifiers. *Nation's Restaurant News*, 41(39), p. 128.
- Schubert, F., Kandampully, J., Solnet, D., & Kralj, A. (2010). Exploring consumer perceptions of green restaurants in the US. *Tourism and Hospitality Research*, 10(4), 286-300.
- Vieregge, M., Scanlon, N., & Huss, J. (2007). Marketing locally grown food products in globally branded restaurants: Do customers care? *Journal of Foodservice Business Research*, 10(2), 67-82.
- Weiss, R., Feinstein, A.H., & Dalbor, M. (2004). Customer satisfaction of theme restaurant attributes and their influence on return intent. *Journal of Foodservice Business Research*, 7(1), 23-41.
- Wright, S., Gregory, S., & Kalaian, S. (2011) Environmental purchasing practices and environmental beliefs of stand-alone coffee shop owners and managers. *Journal of Foodservice Business Research*, 14(2), p 180-188.
- Yesowich, P. (2009). Going green but not willing to pay for it. Insight August 2009. Ypartnership. Retrieved on July 13<sup>th</sup>, 2011 at <http://blog.ypartnership.com/?p=288>
- Zurburg, R., Ruff, D., & Ninemeier, J. (1995). Environmental action in the United States lodging industry. *Hospitality and Tourism Educator*, 7(2), 45-49.

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