

Sustainable Competitive Advantage In Service Operations: An Empirical Examination

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ABSTRACT

This paper empirically examines the impact of environment friendly practices on restaurants in attracting customers. The restaurant industry is witnessing the green movement. Restaurant owners adopt green practices to their properties with the purpose of creating a distinctive image that can differentiate them from their competitors. Therefore, restaurateurs strive to get this competitive advantage by introducing green practices into their restaurants. However, little research has been done in the service sector to prove whether or not organic and sustainable service businesses such as restaurants can have a competitive advantage based on the organic and sustainability factors alone. The purpose of this research is to unfold these relationships through empirical analysis. The results of this research show that the dimension Sustainability is easily identified by the customers and does bring customers back to the restaurants. The results also indicate that restaurant industry need to do better job in creating awareness among their customers about the environment friendly practices used in their businesses.

Keywords: Service Operations Management; Green Practices; Sustainable Competitive Advantage

INTRODUCTION

It is becoming evident that the question of “greening” or “going green” across various industries no longer has a “yes or no” answer. The debate has moved on from “why” to “how”, such that the greening process supports other business conditions including profitability, customer satisfaction, speed and dependability. Green businesses operate using standards that reduce, rather than increase, environmental and social problems. These businesses utilize principles, policies, and practices that improve the quality of life for their customers, employees and communities. These practices are instituted as a means to reduce the production of greenhouse gases, conserve natural resources and cut costs to business owners (O'Brien, 2002).

It is imperative to keep in mind that instituting green practices is not something that will always be visible to customers. A customer’s perception of a restaurant will not always change just because said restaurant is using a recycling program or changing standard operating procedures to lessen the amount of greenhouse gas emissions. According to Glazer (2008) where he cites a study conducted by the NPD Group, even with the restaurant industry’s attempt to make operations more environmentally friendly, consumers don’t view this sector as having made any improvement with regards to going green. There has been an attempt to reverse this lack of awareness through third party certification with organizations such as the Green Restaurant Association (GRA). The GRA works to assist the foodservice industry in becoming more sustainable by using both convenient and cost effective methods.

It is believed that an increased emphasis on green activities will affect restaurant positively through customer retention, upward price flexibility and increase in gross revenues. The purpose of this research is to unfold these relationships through empirical analysis.

LITERATURE REVIEW

Food and sustainability has been a studied relationship since the 1980s. As a result, conferences, papers, and government have been focused on ways to prepare food in a way that will conserve the earth's natural resources. Organic food is a large part of earth sustainability. Jones et. al. (2001) defined "organic" as referring to food produced or processed without fertilizers, pesticides, growth hormones and other synthetic chemicals, but acknowledged that the definition needs to be more defined.

Crane (2001) argues that ethics plays a significant role when consumers choose to purchase products. Sustainability is therefore considered an ethical decision and consumers will consider ethical implications when purchasing products. Furthermore, he mentions that consumers have no qualms about boycotting products and corporations that do not act ethically. Consequently, executives have chosen to steer their corporations toward increased social responsibility in order to attract and hold on to consumers. Based on his research, one could assume that consumers would choose to buy organic food if doing so was perceived to be a more ethically sound decision.

In addition to the growing popularity of organic food, food safety has become a concern. Governments cracking down and working to ensure that consumers are confident with the products they purchase. Yeung and Morris (2001), however, argue that food safety risk and its perception are largely psychological and open to interpretation. This interpretation influences consumer behavior, consumer attitude and ultimately whether or not consumers will buy certain products. The researchers go on to say that the interpretation and perception of risk has consequences for companies as well as consumers and can detract from food supply chain effectiveness and efficiency. Addressing food safety risks to consumers and alleviating those risks can help to ensure that consumers will continue to purchase products from those organizations.

Due to this rise in awareness and worry about food safety, organic food has garnered more attention in recent years, with more organizations opening organic cafes and more grocery stores offering more organic products to meet rising demand. Jones et. al. (2001) directly attributes the rise in demand for organic food to the highly-publicized scares regarding food safety. Therefore, people want to know that their food is not going to be recalled or cause diseases. Organic food acts as a safety net in that people see that term and believe that the food will be better because it is held to higher standards.

A past study regarding organic food consumption found that many consumers purchase organic foods because they believe that purchasing those foods is a symbol of their values (Griffith et. al, 2010). Thus, if someone believes that buying certain foods will be a symbol of their values, he or she is more likely to purchase that food. Aertsens et. al (2009) note that values shape behavior only as long as the values are keyed upon during the pre-decision process. Therefore, when manufacturers relate organic foods to abstract values such as "security," "benevolence," "stimulation," "self-direction," "hedonism," or "conformity," they can make consumers look more favorably upon organic foods and in turn, purchase them. It is important to note that this research focuses on the pre-decision process as being extremely important; one cannot expect a customer who has no knowledge of organic food to simply go into the store and purchase those products over the products they are used to purchasing.

Barber's (2009) research draws similar findings to Aertsens et. al. Barber researches the profiles of consumers who have indicated a willingness to pay more for a product due to its environmentally friendly packaging and not necessarily the organic content. Barber recognizes that there are different indicators within each consumer that will help determine whether or not a consumer will purchase products due to environmentally friendly packaging. Barber found that one's influence in being environmentally friendly, acknowledging and allowing for environmental issues when purchasing products and collectivism all acted as indicators as to whether or not someone would purchase these products based solely on the packaging.

However, given this research, there still remains a disparity between what customers say they value and the types of products that are being purchased, with some researchers arguing that the difference between the purchasing inconsistencies is more than merely price. Vermeir and Verbeke (2008) recognize these inconsistencies between self-reported ethics and consumer behavior. Many consumers who claim to value sustainability and social behavior do not show those same values in the marketplace.

Furthermore, the authors acknowledge that there are different types of consumers based on these different values. For example, the authors state that those who are more traditional in their values are more likely to buy sustainable products. Conversely, those who seek power are less likely to buy sustainable products. The authors break down the types of consumers into several subsets based on values, personality, thirst for power, spirituality and dependence on other's opinions. All of these criteria when combined can help determine whether or not one will purchase sustainably or continue to purchase products based on personal needs and convenience.

Another study has found that customers choose to buy organic food mainly to maintain their health (Aiking & deBoer, 2004). These consumers choose to buy organic food even though it is often more expensive than non-organic. Essoussi and Zahaf (2008) argue that the benefits of organic food make regular consumers become non-price sensitive. The authors attribute that to the fact that the added benefits equal or outweigh the added cost. It might cost that much more but it's that much better, which will lead more consumers to purchase those products. Fotopoulos and Krystallis (2002) found that the buyers of organic products could be separated into five different groups based on personality and other behavioral factors.

It is important to realize, however, that not all consumers want to purchase organic products. An Australian study from 2006 hinted that the "green trend" was partly cultural, with many Australians finding the green movement and food packaging confusing. Bhaskaran et. al. (2006) mentioned that the added expense of organic products deterred consumers from purchasing these products. Additionally, those same consumers reported that the terminology used to describe organic and environmentally friendly products was extremely confusing, which also did little to encourage purchases.

Corporations have long been held to social standards regarding social issues and the foodservice industry is no exception. Rimmington et. al. (2006) found that having such a large national supply of sustainable and organic foods was a success in itself. However, the authors state that that success must be compared with the requirements about price and quality in order to achieve financial success and competitive advantage. Past studies have found that food safety is important to consumers, but recently studies have begun to look farther regarding food preparation and consumption.

Green and Peloza (2011) found that corporate social responsibility has a consistent and positive effect on consumers. Unfortunately, the researchers also found that consumers define corporate social responsibility in a multitude of ways. Their research focused on learning how consumers define corporate social responsibility in order to enhance consumer utility. Green and Peloza argue that consumers must ultimately benefit from exchanges in which companies engage in corporate social responsibility in order for that exchange to repeat or continue. Ultimately, the researchers found that consumers rely on price over corporate social responsibility, due to the added value they feel they retain. Therefore, corporate social responsibility that adds more value to consumers would theoretically be successful, especially if emotional or social value was added to the product.

Conversely, if a consumer feels that buying green means that he or she is purchasing a lower-quality product, that consumer will often find a substitute that remains as high quality as the previous one. Grove et. al. (1996) acknowledge that importance of maintaining a high quality product, especially in service organizations that have emphasized green strategies. Grove et. al (1996) also mention the importance of focusing on environmental tradeoffs when deciding to become a green organization. For example, becoming green by eliminating paper napkins might be costly in other ways, as a restaurant would need to use more water and cleaning products to clean cloth napkins. The researchers argue the importance of choosing the most overall green strategy for service organizations.

A recent study has found that corporate wellness programs focusing on nutritional food consumption can provide sustainable competitive advantages. After researching other corporate wellness programs, Houghton, Neck and Cooper (2009) found that organizations could use nutrition intervention as a part of a holistic wellness program in hopes of creating sustainable competitive advantage.

Many healthy foods companies have embraced this research, with cereal companies making their products more healthy and using organic products when possible. General Mills and Kellogg both offer organic options to consumers in hopes of promoting healthy lifestyles.

However, alternate studies have shown that price is more important than quality for consumers who eat in restaurants. Tse (2001) states that customers do not want to pay more money for higher service when everything else is constant. This research, when coupled with the research on organic purchase and consumption asks the question of whether or not those organic consumers would continue to purchase organic foods at restaurants that have higher prices simply because the foods are organic.

The research has shown several disparities, some cultural, with one viewpoint remaining constant throughout: that consumers who value sustainability will purchase sustainable and organic products when the benefits outweigh the cost and when the product is perceived to be superior to the alternative. However, little has been done in the service sector to prove whether or not organic and sustainable businesses and restaurants can have a competitive advantage based on the organic and sustainability factors alone. Based on the above literature review, we propose the following hypothesis for this study:

HYPOTHESES

- H1:** There is a significant relationship between customer return intention and a restaurant using natural food practices.
- H2:** There is a significant relationship between customer return intention and the practices of environment preservation.
- H3:** There is a significant relationship between customer return intention and the practices of reducing carbon foot print.
- H4:** There is significant relationship between customers' demographic characteristics and their intention to return to a restaurant.

METHODOLOGY

The research task in this study was to assess the impacts of the use of natural; Environment preservation & Reducing carbon foot print strategy used by restaurants on the customer's intent to return to the restaurant. The environment in which this study was carried out was the United States service sector. The information necessary to test the model is unavailable from existing databases. Hence, we built our own database.

Sample and Questionnaire

A self administered questionnaire was used to conduct the survey. The initial design of the questionnaire was based on a review of related literature. A final draft was developed after consulting with several restaurant goers who eat out on a regular basis. The sample for this research was developed by using the local telephone directory in Lynchburg, Virginia in south east United States. A total of 1000 users were contacted through mail and e-mail. After two reminders, we received 563 responses, but only 536 were usable due to lack of questions answered by respondents (53.6%). The questionnaire was tested for reliability. The Cronbach alpha value for this model was 0.867. Accordingly, the scales developed for this study were judged reliable. Once the reliability of scales had been established, construct validity of the questionnaire was also established. The construct validity resulted in four dimensions i.e. Sustainable; Conservation; Carbon foot print; and Intent to Return. (Table 1)

RESEARCH MODELS

The purpose of this research of Sustainable; Conservation & Carbon Foot Print dimensions on a customer's Intent to return to a restaurant. To achieve our goal we developed the following regression Model:

$$\text{Intent to Return} = \beta_0 + \beta_1 (\text{Sustainable}) + \beta_2 (\text{Conservation}) + \beta_3 (\text{Carbon Foot Print}) + \text{Error}$$

Table 1: Factor Analysis of Dimensions

Sustainable			
Organic cotton uniforms for staff	.585		
Serving organic food or drink	.726		
Purchasing local foods	.614		
Non-toxic chemical cleaners	.541		
Furniture made of recycled wood	.672		
Offering filtered tap water	.426		
Conservation			
Energy efficient lighting		.630	
Motion sensors to detect when to turn the lights on/off		.644	
Low flow toilets in the restroom		.659	
Automatic faucets on the sinks		.726	
Carbon Foot Print			
Recycled paper goods (i.e. napkins)			.562
Recycling throughout the restaurant			.620
Not using Styrofoam to-go containers			.813
Not using Styrofoam cups			.815
Eigen Value	2.49	2.231	2.123

HYPOTHESES ANALYSIS

Hypothesis 1 states that there is a significant relationship between customer return intention and a restaurant using natural food practices was supported by regression (Table 2).

Hypothesis 2 states that there is a significant relationship between customer return intention and the practices of environment preservation was supported by regression (Table 2).

Hypothesis 3 states that there is a significant relationship between customer return intention and the practices of reducing carbon foot print was not supported by regression (Table 2).

Table 2: Regression Analysis

Model	Standardized beta
Sustainable	0.356*
Conservation	0.283*
Carbon Foot Print	0.044

*p < 0.00

Hypothesis 4 states that there is significant relationship between customers’ demographic characteristics and their intention to return to a restaurant was supported by regression. All three dimensions (Sustainable; Conservation & Carbon Foot Print) were significant for females whereas only Sustainable and Conservation were significant for males (Table 3).

Table 3: Sub Group Analysis Based on Gender

Model	Female	Male
Sustainable	0.353*	0.382*
Conservation	0.284*	0.288*
Carbon Foot Print	0.109**	-0.98

* p < 0.00

** p < 0.05

Subgroup Analysis

A subgroup analysis was conducted to check the following:

1. 1. Does the significance of three dimensions (Sustainable; Conservation & Carbon Foot Print) change among Certified and non-certified green restaurants?
2. 2. Does the significance of three dimensions (Sustainable; Conservation & Carbon Foot Print) change among the consumers who are willing to pay extra for Green?
3. Does the significance of three dimensions (Sustainable; Conservation & Carbon Foot Print) change among who follow green practices at home?

A stepwise regression was used to test the significance of three dimensions across certified and non-certified restaurants. It was found that in terms of significance of variables, certification does not have any Influence on consumer’s intent to return to a restaurant (Table 4). Only Sustainable and Conservation were significant for both subgroups. For consumers who are willing to pay extra for Green, the dimensions of Sustainable and Conservation were significant whereas for consumers who are not willing to pay extra, only one dimension i.e. Organic was significant (Table 5). All three dimensions (Sustainable; Conservation & Carbon Foot Print) were significant for consumers who use green practices at home whereas only the dimension Sustainable was significant for consumers who don’t use green practices at home (Table 6).

Table 4: Effect on Green Certification

Model	Certified Green Restaurant	Non-Certified Restaurant
Sustainable	0.359*	0.400*
Conservation	0.314*	0.399*

*p < 0.00

Table 5: Effect of Customer’s Willingness to Pay Extra for Green

Model	Customer willing to pay extra	Customer not willing to pay extra
Sustainable	0.340*	0.417**
Conservation	0.316*	0.100
Carbon Foot Print	0.039	0.064

*p < 0.00

**p < 0.01

Table 6: Customers Who Use Green Practices at Home

Model	Customer using Green practices at home	Customer not using Green practices at home
Sustainable	0.338*	0.405**
Conservation	0.300*	0.090
Carbon Foot Print	0.238**	0.043

*p < 0.00

**p < 0.01

Discussion of Hypotheses

The dimension of Sustainable was significant across the board in this research. One possible explanation is that consumers can easily identify with the items constituting this dimension such as using local produce; serving organic foods; and using filtered tap water. In this study, it is conceivable that the respondents experienced primarily an active form of commitment to “Sustainable” and that, for some reasons affective responses were translated into behavior intentions. If a such a view is correct, it suggest a rethinking of the current approach of studying consumer’s commitment to " Sustainable" as well as a renewed effort at measuring its various facets.

This research goes against the claims of certain industry groups that consumers like to verification of a restaurant's green claims. The results may reflect the lack of marketing of green certification organizations such as Green Restaurant Association (GRA). The result may also reflect lack of consumer trust for certificate awarding organizations. The consumers may not be aware of the audits conducted by GRA on restaurants green claims. In the era of green washing, it's very important to provide consumers with information they can trust. The consumer needs to be able to see the exact steps the restaurant has taken, and they need to know those steps were verified by a nonprofit environmental organization with science-based standards.

CONCLUSION

The results of this study suggest that customers' perception of a restaurant's green image can mainly be affected by green advertising. In other words, even though the company performs excellent green practices, customers may under perceive the green image of the restaurant. This may require communicating their green message more effectively to their customers through a well-planned advertising campaign. This suggests that restaurateurs may effectively influence customers' ecological behavior intention by conducting green advertisement.

Furthermore, managers should take their company's resources into account, and maximize the utility of attainable green practices. One of the ways to achieve this purpose would be for restaurant owners to conduct a customer surveys to find out which green practices are important to them. The restaurants should then use the survey results to focus on implementing green strategies which are valued by their customers. For example, a restaurant planning to adopt green practices with limited financial resources can start with a green practice of "using recyclable take-out containers", especially if the majority of the customers are favorable to recycling efforts. Once they have sufficient resources to build more green attributes into the restaurant's way of doing business, they can add other green practices to their list.

Also, it is questionable as to how or what part of a decision to return to a particular restaurant is influenced by the ability to adopt green practices. This study did not consider other restaurant main attributes such as food, services, atmosphere, and price, which may have direct influence on customers' perceived image of the restaurant as well as their intention to return. More research is needed in this area to consider green practices as one of the restaurant attributes and discover their influence on other restaurant attributes as well as customers intention to return to the restaurant.

In terms of limitations, data collection was the major drawback due to its geographical limitations. It will be useful to use the same questionnaire for consumers in other countries such as UK, France and Japan. This type of study is important due to the "go green" movement across the globe and it will help verify the validity of current results in the global context.

AUTHOR INFORMATION

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