Factors Influencing a Business Preference for Tourism Sustainability: An International Example

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Abstract
Sustainability is becoming a necessity in the tourism industry. Today, more than ever, hospitality businesses are facing more competition in a global market. And to remain competitive, costs must be weighed against the tourists' desire for experiences. The purpose of this study is to explore the purchasing practices of a global sample of restaurants and to compare those practices against management's willingness to embrace sustainable measures. This study employed the Global Sustainable Tourism Criteria (GSTC) developed by the United Nations and others. The results suggest that restaurant management values some aspects of the GSTC across our sample.

Keywords: Sustainable Tourism, Tourism Management, Global Sustainable Tourism Criteria

1.0 Introduction
The food industry encompasses a significant portion of the tourism sector. From the consumer's perspective, meals away from home contribute financially to this economy. Restaurants are challenged to meet the varied dietary needs of both local and visiting customers and above all of this, the need for the restaurant to maintain and grow in a sustainable manner is paramount. This study builds upon previous research by Bristow et al. (in press) where the management of restaurants was compared between islands in the Caribbean to those found in Massachusetts. The unique geographies of the two regions were found to significantly contribute to managements preferences for sustainable practices.

Sustainable tourism is frequently identified as a fundamental tool for economic development (Butler, 1999; Sharpley, 2000). And as such, it is imperative to understand how management views sustainable practices in their business model. This research used the Global Sustainable Tourism Criteria (GSTC) formed by Rainforest Alliance, the United Nations Environment Programme (UNEP), the United Nations Foundation, and the United Nations World Tourism Organization (UNWTO) in 2008. These criteria are designed to be the minimum practices to ensure sustainability in a business as well as to protect natural and cultural resources (Global Sustainable Tourism Criteria, 2013).

The purpose of this study is to compare the sustainable management practices found in a sample of restaurants located on the islands of Providenciales, North and Middle Caicos in the Turks and Caicos (TCI), in the Pioneer Valley region of Massachusetts, Wales, United Kingdom and western Switzerland. Given the depth of our sample, it is hypothesized that restaurants will have different concerns regarding sustainable food production methods and management strategies recommended by the United Nations' Global Sustainable Tourism Criteria.

The next section of the paper introduces food as an important element to the tourist experience. In addition, a variety of practices the food industry employs to counter the mass produced food required by a growing world population is explored. Following this, the methods employed in this analytical study are described and the sample is defined. Tourism operators' management ranking of importance is then summarized and the paper concludes with a review of the research and future needs.

2.0 Background
Food contributes to the tourist experience (Everett, 2008; Sims, 2009). Food is defined by not only the particular item, that is meat versus vegetable, but where it comes from, how it is prepared and the taste might relate to the mood of the diner. All of these factors impact the availability of certain menus offered to the tourist. The economic cost of food while travelling range from 25-33% of the total cost of a trip (Hudman, 1986; Meler & Cerović, 2003). Given this high portion of the tourist's budget, restaurants are found to be an important determinant in the consumer's choice of a destination (Sparks, Bowen, & Klag, 2003). Hall (2011) described a continuum of food consumers from the Neophobe to the Neophile, or an intensity of interest and involvement of the food at the destination. The neophile is thus more likely to try something new on the menu, that is, something that may not be available at home while a neophobe is less likely to be as adventurous in their diet.

A variety of agricultural food production techniques have become popular today, as the consumers desire and expect higher quality food in their diet. Organic, free range, GMO free foods are particularly attractive options in restaurants and are becoming

widely available to a diner wishing something new or different. Also, diners may wish these types of food since they are considered more natural and healthy (Feenstra, 1997; Torres, 2002).

2.1 Sustainability

Sustainability is used to describe a process that minimizes impacts and maximizes benefits to society. Todorov and Marinora (2009a) suggest a model of sustainability based on the role of humans as "guardians". The definition is founded on a history from the earliest days of environmental awareness to one today where human dimensions are integrated into the equation. Combining the social, environmental and economic elements in sustainability is critical and serves as the foundation of sustainability. The linkage between social, economic and environmental factors needs to be reinforced to be sustainable (Jones & Jenkins, 2008; Hall, 2011; Hall & G□ssling, 2013). Todorov and Marinora (2009b) build on their previous work arguing for a new science of "sustainometrics" that provides a theoretical basis for the Global Sustainable Tourism Criteria used in this study.

Jenkins and Bristow (2013) have tested the GSTC as it relates to the food service industry. They found several components of sustainability to be significant contributors to restaurant management. For this research, the GSTC as prepared in 2009 were evaluated by restaurant management using a survey instrument. The Criteria were developed by sustainability experts and the tourism industry and based on more than 60 existing models of sustainable tourism certification already deployed around the world. They are organized around four main themes: effective sustainability planning; maximizing social and economic benefits for the local community; enhancing cultural heritage; and reducing negative impacts to the environment. The GSTC model is founded on the desire to create baseline guidelines for businesses, both large and small, to become more sustainable and to serve as a starting point for the more specific needs of governments, NGO's and the private sector. Since deployment in late 2008, the criteria are starting to be critiqued at the management level.

Acceptance of the GSTC is critical in order to achieve some level of sustainability. Therefore it is hypothesized that restaurants that exhibit purchasing behavior for agricultural products described earlier, (e.g., GMO free, organics, etc.) would be more likely to embrace the GSTC. In so doing we might be able to link purchasing practices to acceptance of the GSTC.

3.0 Methods

In order to explore the importance of food and food production processes a survey instrument was prepared to solicit information from restaurant managers or head chefs. Specifically, the survey collected information on the particular cuisine offered, size of operation in terms of seats and staff and sources of food products offered. For food, additional questions inquired about production practices (e.g., organic, grass fed, free range). Lastly, a series of statements prepared by the GSTC was evaluated by restaurant managers using a five point likert type scale. These criteria are designed to assess the social and economic wellbeing as well as employment contributions to the tourism business. In addition to the survey and when possible, the in-person contact with management permitted some time for comments regarding the challenges of managing a restaurant.

The questionnaire was then administered in person to restaurant managers at four locations: the Turks and Caicos Islands during the summer of 2011, Western Massachusetts in the US in the Fall of 2011, Switzerland during Spring 2012, and Wales in the UK, over the Summer 2012. Excluded from the sample were chain and fast food restaurants. The authors created a master list of all restaurants in each region using written tourist guides, websites and telephone directories. From this population, an attempt to reach as many businesses as possible within the sampling timeframe was made. A total of 78 complete surveys were collected, yielding an approximate 20-30% response rate across the four locations. Due to the nature of survey data collection the response rate is approximate since the absolute total population varied for each area and is not exactly known. The exact population could be estimated by telephone directories, web sources and travel sources. However, restaurants might have closed or the staff may have been on vacation during the sampling period. For these reasons, our results are descriptive at best.

The data were entered into a database and subsequently analyzed using SPSS v20. In addition to measures of central tendency and frequencies, an independent samples t-test was used to test the hypothesis that restaurants that exhibit purchasing behavior for agricultural products described earlier, (e.g., GMO free, organics, etc.) would be more likely to embrace the GSTC.

4.0 Results

Participating restaurants had a seating capacity range from 15 to 150 seats; on average they had 75 seats and 12 full time staff. These restaurants offered a variety of cuisines with the most common being American (52.8%), Caribbean (28.3%), Italian (28.3%), Seafood (24.5%), and Vegetarian (24.5%). A few restaurants noted Asian, BBQ, Cajun, Steak and other items on their menu.

Next, the managers were asked to assess the importance of a variety of agricultural practices desired by the consumers. Fish sourced from sustainable stocks was the most important to management with 63.4 % of the restaurants noting it was very important or important (Table 1). Chemical free food was favored 51.9% of the time. On the other hand organic food was not important to 20.5% of the sample and this reflects, in part, the lack of availability or higher costs associated with purchase.

Table 1. *Importance of Agricultural Practices Desired by Restaurant Managers*

	Importance				
Agricultural Practice	Very Important	Important	Indifferent	Not Important	Not Very Important
Organic	9 (12.3) [a]	24 (32.9)	25 (34.2)	9 (12.3)	6 (8.2)
Chemical Free	17 (23.3)	22 (28.6)	22 (28.6)	10 (13.7)	2 (2.7)
Integrated Pest Mgmt	16 (22.5)	16 (22.5)	26 (36.6)	10 (14.1)	3 (4.2)
Grass Fed	8 (11.1)	14 (19.4)	38 (52.8)	8 (11.1)	4 (5.6)
Free Range	13 (17.8)	18 (24.7)	32 (43.8)	7 (9.6)	3 (4.1)
GMO Free	15 (21.1)	19 (26.8)	25 (35.2)	8 (11.3)	4 (5.6)
Fish Sourced	24 (33.8)	21 (29.6)	14 (19.7)	10 (14.1)	2 (2.8)

[a] - Frequency (%)

Ten of the GSTC were selected for this study and address the environmental impacts of restaurant management as well as one criterion directed to wages offered employees. All of the Criteria were important to managers (Table 2). Highest on the list was "The international or national legal protection of employees is respected, and employees are paid a living wage (mean = 1.50), "The use of harmful substances, including pesticides, paints, swimming pool disinfectants, and cleaning materials, is minimized; substituted, when available, by innocuous products; and all chemical use is properly managed" (mean=1.73), "The purchase of disposable and consumable goods is measured, and the business actively seeks ways to reduce their use" (mean= 1.92), and "A solid waste management plan is implemented, with quantitative goals to minimize waste that is not reused or recycled" (mean=1.94).

Table 2. Overall Importance of GSTC by Restaurant Management

Items	*N*	*M*	SD
Purchasing policy favors environmentally friendly products for building materials, capital goods, food, and consumables.	74	2.05	0.97
The purchase of disposable and consumable goods is measured, and the business actively seeks ways to reduce their use.	76	1.93	0.84
Energy consumption should be measured, sources indicated, and measures to decrease overall consumption should be adopted, while encouraging the use of renewable energy.	76	2.03	0.99
Water consumption should be measured, sources indicated, and measures to decrease overall consumption should be adopted.	76	2.12	0.98
Greenhouse gas emissions from all sources controlled by the business are measured, and procedures are implemented to reduce and offset them as a way to achieve climate neutrality.	75	2.51	1.02
Wastewater, including gray water, is treated effectively and reused where possible.	74	2.15	1.07
A solid waste management plan is implemented, with quantitative goals to minimize waste that is not reused or recycled.	75	1.95	0.97
The use of harmful substances, including pesticides, paints, swimming pool disinfectants, and cleaning materials, is minimized; substituted, when available, by innocuous products; and all chemical use is properly managed.	71	1.73	0.83
The business implements practices to reduce pollution from noise, light, runoff, erosion, ozone-depleting compounds, and air and soil contaminants.	74	2.26	0.98
The international or national legal protection of employees is respected, and employees are paid a living wage.	74	1.50	0.67

Note: Mean scores base on a 5-point Likert scale with 1 = very important and 5 = not very important.

From the data, a new measure of restaurant sustainability was created. A quartile grouping was calculated in order to segregate the restaurants into managers that highly value sustainable agricultural practices, for example the employment of integrated pest management and utilization of grass fed products. Those in the top quartile were labeled *sustainable businesses* while those in the last quartile are *less sustainable businesses*. The fifty percent in the middle are figuratively on the fence and by not including them in the analysis the remaining sample provides a conservative estimate of differences. This conservative measure is relevant since in all fairness to our restaurants, some of the food production methods described in Table 1, may not be available to

managers. It was noted in some of the follow up conversations with managers that the lack of availability, especially in the Caribbean, or the higher costs associated for purchasing these items, placed the specialized food out of reach of many of the businesses.

In order to test our hypothesis that restaurants that have preferences for certain agricultural products, would exhibit an interest in sustainable practices, an independent samples *t*-test was used. Significant differences were found for two of the ten GSTC Criteria: "Purchasing policy favors environmentally friendly products for building materials, capital goods, food, and consumables" (*t*-test=-3.14, *p*=0.003) and "A solid waste management plan is implemented, with quantitative goals to minimize waste that is not reused or recycled" (*t*-test=-2.13, *p*=0.038). While the mean values appear to be different between *sustainable businesses* (mean=1.86) and *less sustainable businessess* (mean=2.48) when assessing the importance of "The business implements practices to reduce pollution from noise, light, runoff, erosion, ozone-depleting compounds, and air and soil contaminants", the *t*-test was not significant (*t*-test=-1.96, *p*=0.057).

Table 3. *Independent Samples t-test Comparing Means of Importance between Sustainable Businesses (First Quartile) and Less Sustainable Businesses (Last Quartile)*

Items	Groups	*N*	*M*	*SD*	*t*-test	Sig.
Purchasing policy favors environmentally friendly products for building materials, capital goods, food, and consumables.	First Quartile	14	1.50	0.52	-3.14	.003
	Last Quartile	29	2.31	1.17		
The purchase of disposable and consumable goods is measured, and the business actively seeks ways to reduce their use.	First Quartile	15	1.73	0.70	-0.80	.427
	Last Quartile	30	1.93	0.83		
Energy consumption should be measured, sources indicated, and measures to decrease overall consumption should be adopted, while encouraging the use of renewable energy.	First Quartile	15	1.80	0.86	-0.77	.445
	Last Quartile	30	2.03	1.00		
Water consumption should be measured, sources indicated, and measures to decrease overall consumption should be adopted.	First Quartile	15	1.93	0.88	-0.86	.397
	Last Quartile	30	2.20	1.03		
Greenhouse gas emissions from all sources controlled by the business are measured, and procedures are implemented to reduce and offset them as a way to achieve climate neutrality.	First Quartile	15	2.13	0.99	-1.14	.260
	Last Quartile	29	2.52	1.09		
Wastewater, including gray water, is treated effectively and reused where possible.	First Quartile	14	1.64	0.93	-1.50	.140
	Last Quartile	30	2.13	1.04		
A solid waste management plan is implemented, with quantitative goals to minimize waste that is not reused or recycled.	First Quartile	15	1.40	0.83	-2.13	.038
	Last Quartile	29	2.04	0.98		
The use of harmful substances, including pesticides, paints, swimming pool disinfectants, and cleaning materials, is minimized; substituted, when available, by innocuous products; and all chemical use is properly managed.	First Quartile	13	1.39	0.65	0.14	.401
	Last Quartile	28	1.61	0.83		
The business implements practices to reduce pollution from noise, light, runoff, erosion, ozone-depleting compounds, and air and soil contaminants.	First Quartile	15	1.87	0.83	-1.96	.057
	Last Quartile	29	2.48	1.06		
The international or national legal protection of employees is respected, and employees are paid a living wage.	First Quartile	15	1.27	0.46	-1.23	.224
	Last Quartile	29	1.55	0.83		

Note: Mean scores base on a 5 point Likert scale with 1 being very important and 5 being not very important.

5.0 Discussion

It should be expected that in the highly competitive market of food service, restaurants that remain in business have balanced the costs of operations with meeting the needs of customer. In the long run, the customer patronage and loyalty determine which restaurants stay open.

The two GSTC Criteria found to be significantly different are important because they may reflect the importance and the practicality of achieving sustainability in the food service industry. For example, "Purchasing policy favors environmentally friendly products for building materials, capital goods, food, and consumables" notes the businesses willingness to purchase items for the restaurant in a sustainable manner. This type of consumer behavior is incredibly important since it creates a market for these kinds of goods. Second, "A solid waste management plan is implemented, with quantitative goals to minimize waste that is not reused or recycled" reflects a serious cost in restaurants; the disposal of food waste. And by waste, it could be food not consumed, resulting from over purchasing, or the lack of demand in the menu. Either way, the food has two costs, the first when purchased and the second when disposed. Lastly, the criteria "the business implements practices to reduce pollution from noise, light, runoff, erosion, ozone-depleting compounds, and air and soil contaminants" illustrated the restaurants willingness to be a good neighbor, so not to negatively impact surrounding people. This is another point that indicates management is attempting to behave responsibly.

Meeting the desired menu selections of the diners is important and may reflect a chicken and the egg scenario (food pun intended). When the diner specifically requests free range chicken or organic eggs, the restaurant must decide if the added cost to purchase these foods is worth the expense. The standard equation in the food service industry is to plan the cost of serving food at one third for the food, one third for labor, one third for overhead, that leaves little for profit (typically 10%). But the true cost of food is often subsidized since the true cost does not reflect the environmental, social and economic costs. Food service employees may not be paid a living wage and agribusiness industries are challenged with feeding a growing world. Yet, tourism operators must behave responsibly. The trick in sustainability is to provide a product desired by the consumer without harming the world. And as tourists, we are expected to do the same.

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