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# Effects of restaurant green practices on brand equity formation: Do green practices really matter?

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ABSTRACT

This study examines the effects of green practices at restaurants on customer-based brand equity formation. A survey of 512 American diners showed that implementing two aspects of green practices, food focused and environmentally focused, influenced customer perceptions of green brand image and behavioral intentions, whereas the effects of green practices on perceived quality were not significant. The relative impact of the two aspects of green practices differs by restaurant type. In upscale casual dining restaurants, green practices focused on foods were more effective in enhancing a green brand image and behavioral intentions as compared to those with an environmental focus. On the other hand, for casual dining customers the effects of green practices with an environmental focus were more convincing in terms of improving a restaurant's green brand image and behavioral intentions as compared to food focused initiatives. In relation to self-perception, the results indicated that diners with high health and environmental-consciousness responded more positively to restaurant green practices than those with a low self-perception of health and environmental-consciousness.



## 1. Introduction

Spurred by unprecedented consumer demand for healthy, environmentally friendly products, sustainability has become an integral part of doing business in all domains of industry. "Greening" has become a key to survival and prosperity for some businesses (Hu et al., 2010). The term *green* refers to "actions that reduce the impact on the environment, such as eco-purchasing or recycling" (Wolfe and Shanklin, 2001, p. 209). Companies are recognizing the marketing potential of green initiatives and working to gain an edge over competitors by becoming greener companies (Schubert et al., 2010). Green practices are particularly crucial in the restaurant industry, where building and managing strong brands has become one of the crucial tasks of restaurant owners and brand managers (Jeong and Jang, 2010; Schubert et al., 2010). According to National Restaurant Associations, 62% of consumers said they are more likely to spend their money at a restaurant if they know it is green (NRA, 2011).

Engaging in green restaurant practices has been shown to positively affect corporate brand image and promote financial benefits, as well as positive contribution to the economic sustainability of the local community (Schubert et al., 2010). In a recent NRA survey of 500 restaurant owners and operators, approximately two-thirds (65%) have a recycling program (NRA, 2011). Further, of the operators without a recycling program, 17% plan to start one in the next year (NRA, 2011). Some chain restaurants, such as Arby's and Chipotle, have been active participants in environmentally responsible implementation. For example, they have at least one Leadership in Energy and Environmental Design (LEED) certified restaurant, which is one of the most widely recognized certification programs (Elan, 2009).

However, most restaurant product and process activities are hidden from customers, as they take place back-of-the-house (Kassinis and Soteriou, 2003). In a NRA Restaurant Operator Survey (2011), among 325 respondents who have recycling programs back-of-the house recycling (74%) is more common than front-of-the-house (43%). Another hurdle for restaurateurs incorporating green practices in their daily operations is that consumer perceptions and preferences for green attributes in restaurants remain unclear. The most important green practice a restaurant can implement tends to vary across restaurant segments. For instance, upscale casual dining customers value serving organic food and drinks over not using Styrofoam to-go containers, while using recycled paper products ranks as the most important practice in fast food restaurants. Although previous research has paid attention to consumer attitudes and behavioral intentions toward restaurants that offer environmentally friendly foods or practices, the effects of green practices in association with brand equity formation are still under explored. To fill the void, this study attempts to answer

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the following research questions from a consumer perspective: (1) Does implementing green practices in restaurants influence customer-based brand equity formation, such as perceived quality, green image of a restaurant, and behavioral intentions? and (2) Are the effects of green practices different across different restaurant segments?

There are various green practices that can be implemented in restaurants, including energy efficiency, water efficiency, recycling, sustainable food, and pollution prevention. In order to test the relative effects of green practices as compared to no green practices, this study used hypothetical scenarios. Restaurant green practices were developed based on frequency and significance of practices, salience to customers, and ease of manipulation in a scenario-based experiment context (Choi and Parsa, 2006; Jeong and Jang, 2010; Schubert et al., 2010). The scenarios represent the two categories of green practices: (1) green practices focused on food; (2) green practices with an environmental focus, and control: (3) no green practices. Furthermore, it is expected that the effect of green practices in restaurants is more salient for individuals with a higher self-perception of health and environmental-consciousness. The impact of green practices focused on food is more salient for individuals with a high self-perception of health. On the other hand, the impact of green practices with an environmental focus is more salient for individuals with a high self-perception of environment.

To fill the research gap, the specific objective of this study is to examine how green practices in restaurant affects customer-based brand equity formation elements, such as perceived quality, green brand image, and green behavioral intentions and whether the effects of green practices differ across different restaurant segments. This study begins with a review of the literature as it relates to green practices in restaurants, customer-based brand equity formation, and self-perceptions of health and environment.

## 2. Literature review

### 2.1. Green studies in the restaurant industry

Going green in restaurants have become a crucial component of sustainability and profitability considerations, because restaurants and other commercial food service establishments are among the commercial sector's highest energy users (MDEQ, 2009). *Green restaurants* have been defined as "new or renovated structures designed, constructed, operated, and demolished in an environmentally friendly and energy-efficient manner" (Lorenzini, 1994, p. 119). Compared to a traditional restaurant, a green restaurant devotes effort to the three Rs (reduce, reuse, and recycle) and the two Es (energy and efficiency) (Gilg et al., 2005). The Green Restaurant Association (2011) (GRA) provides a nationally recognized green restaurant certification. Certified restaurants must meet seven environmental categories: water efficiency, waste reduction and recycling, sustainable furnishings and building materials, sustainable food, energy, disposables, and chemical and pollution reduction.

The increased attention being focused on green management has stimulated interest in research regarding the relationship between green practices and financial performance (Choi and Parsa, 2006; Ham and Lee, 2011). Based on the stakeholder theory (Freeman, 1984), green initiatives should positively impact a restaurant firm's performance and value because a firm needs to satisfy all stakeholders, including shareholders, employees, customers, the community, suppliers, and the environment. Choi and Parsa (2006) conceptualized green restaurant practices as involving three perspectives: health concerns, environmental concerns, and social concerns. Applying Stakeholder Theory to managers' green practice orientations, their results suggested that willingness to charge higher prices for green practices was significantly affected by restaurant managers' personal preferences and involvement in green practices. However, managers' attitudes toward green practices had little or no effect on their willingness to charge higher prices for socially responsible practices. Considering the significance of restaurant companies' participation in green practices, Ham and Lee (2011) investigated green marketing issues in the US restaurant industry. The insignificant effects of US restaurant companies' green marketing via company websites on firm financial performance do not substantiate the stakeholder theory. However, the results indicated that the US restaurant industry may not be mature enough in terms of its green marketing practices.

As green initiatives continue to advance at a fast pace, investigating consumer attitudes and behaviors towards green practices in the restaurant industry has received more attention from researchers. For instance, Hu et al. (2010) examined the dynamics of green restaurant patronage. This study found that consumer knowledge of sustainable restaurant practices and environmental concerns were significant determinants of the intention to patronize green restaurants. The study also found that individuals in older age groups, in higher income levels and with more education tend to patronize green restaurants. Jeong and Jang (2010) demonstrated that customer perceptions of green practices significantly influence customers' ecological image and ecological behavioral intentions toward the restaurant. However, the study was done in a single Starbucks location. Also, they did not compare the effects of green practices to restaurants with no green practices conditions. Therefore, additional research on the impact of green restaurant practices in association with customer perceptions of green image and behavioral intentions is needed.

### 2.2. Customer-based brand equity and green practices

Over the last few decades, measuring the value of a brand has become important in order to compete with rivals (Aaker, 1991; Keller, 2003a,b). Aaker (1991, p. 15) defined brand equity as "a set of brand assets and liabilities linked to a brand, its name and symbol, that adds to or subtracts from the value provided by a product or service to a firm and/or to the firm's customers." Similarly, Keller (1993, p. 2) stated that brand equity is "the differential effect of brand knowledge on consumer response to the marketing of the brand." Researchers primarily take one of three perspectives on how to measure brand equity: customer-based perspective (Aaker, 1991; Keller, 1993; Yoo and Donthu, 2001), financial perspective (Simon and Sullivan, 1993), and a comprehensive perspective combining both customer-based brand equity and financial brand equity (Dyson et al., 1996; Motameni and Shahrokhi, 1998). In conceptualizing customer-based brand equity, of the four components of perceived quality, brand awareness, brand image (association), and brand loyalty are the most widely accepted and employed by scholars (Aaker, 1991, 1996; Keller, 1993; Motameni and Shahrokhi, 1998; Yoo and Donthu, 2001).

Research on brand equity in restaurants suggests that brand equity is a multi-dimensional concept comprised of four components: perceived quality, brand awareness, brand image, and brand loyalty (Kim and Kim, 2004, 2005; Atilgan et al., 2005; Hyun and Kim, 2011), although the relative impact of each element is somewhat different. Kim and Kim (2004) found that brand awareness, perceived quality, and brand image are determinants of financial performance for quick service restaurants. However, brand loyalty did not significantly affect a firm's financial performance. Further, Kim and Kim's (2005) findings demonstrated that among the four dimensions, only brand awareness and perceived quality have a positive relationship with fast food and chain restaurants' firm performance. In the context of the beverage industry, Atilgan et al. (2005) provided evidence that brand loyalty only has a significant