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ORGANIZATIONAL GREEN CLAIMS AND CONSUMER GREEN PERCEPTIONS
IN THE FOODSERVICE INDUSTRY

A Dissertation

presented in partial fulfillment of requirements

for the degree of Doctor of Psychology in Hospitality Management

in the Department of Nutrition and Hospitality Management

The University of Mississippi

By

Jangwoo Jo

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ABSTRACT

Due to the ever-growing consumer demands and global pressures for more sustainable business operations, corporations disclose their sustainable practices, products, and services to enhance their environmental image. Consumer green perceptions resulting from those organizational green claims have not been the focus of foodservice research. The application of green performance dimensionality of the foodservice domain identified that organizational green claims regarding food, environment and administration increase consumer green confusion and green trust at the same time. Based on the results of CFA, SEM, and multigroup analyses, this study suggests implications both theoretical and practical.

LIST OF ABBREVIATIONS AND SYMBOLS

GW	Perceived Greenwashing
GC	Consumer Green Confusion
GT	Green Trust
EFA	Exploratory Factor Analysis
CFA	Confirmatory Factor Analysis
SEM	Structural Equation Modeling

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CHAPTER I

Introduction

Sustainability

Environmental Demands

Global Awareness of Environmental Issues

The global awareness of environmental issues has been constantly growing across a multitude of fronts (Jianping et al., 2014) since the emergence of environmental movements in the 1960s (Szabo & Webster, 2020). The first international discussion regarding environmental issues arose in the Organization for Economic Co-operation and Development (OECD) committee in the late 1960s (Takala, 1991). Later, the Stockholm Conference on Human Environment by the United Nations (1972) approved several research proposals concerning environmental issues. A report, *Our Common Future* (1987), was one of the initial publications concerning the environment and was funded by the United Nations (UN). This report has been considered the first time the term ‘sustainability’ was earmarked, which has become a core domain of policy and research (Daly, 1996). Initially, there were skeptical views on sustainability claiming that it was a mere catchphrase that would eventually fade out (Mebratu, 1998). However, it is now at the forefront of many facets of legislation and research agendas.

The consensus has been that the primary cause of environmental issues is the traditional view of the economy and capitalism that prioritizes economic growth and development above all else (Jianping et al., 2014). As sustainability issues gained momentum it has become one of the dominant topics in environmental policy and research domains motivating international

organizations to set standards and goals for more sustainable development (Brown et al., 1987). The World Commission on Environment and Development (WCED, 1987) suggested that sustainable development should be a concept respecting environmental limits before human needs. The International Union for the Conservation of Nature (1991) proposed that sustainable development means improving the quality of human life within the environment's capacity.

Academic Efforts

One of the initiatives that international organizations facilitated as a response to the growing environmental risks included various research programs (Takala, 1991). Academia has been paying a vast amount of attention to environmental issues as well as the concept of sustainability and sustainable development (Clark & Munn, 1986; Liverman et al., 1988; Redclift, 1987). The concept of sustainability has become prominent in a number of research domains including but not limited to: manufacturing (e.g., Garetti & Taisch, 2012; Jayal et al., 2010; Jovane et al., 2010; Joung et al., 2013; Rusinko, 2007; Stock & Seliger, 2016), engineering (e.g., Azapagic et al., 2005; Graedel & Allenby, 2010), policy-making (e.g., Boulanger & Brechet, 2005; Thyberg & Tonjes, 2016; Vermon et al., 2005), marketing (e.g., Dennis et al., 2005; Grant, 2008; Ottman & Humphrey, 1993; Peattie & Charter, 2003; Polonsky, 1994; Polonsky & Rosenberger, 2001), consumer behavior (e.g., Jansson et al., 2010; Straughan & Roberts, 1999; Zhao et al., 2014), supply chain management (e.g., Carter & Rodgers, 2008; Crum et al., 2011; Seuring & Muller, 2008), and logistics (e.g., Decker et al., 2012; Lai & Wong, 2012; McKinnon et al., 2015).

Sustainability research not only exists at multiple levels, from international to local levels but also across virtually all research domains (Hartmuth et al., 2008; Kates et al., 2001; Moran et al., 2008; Spangenberg, 2012) and has blossomed into a unique and vibrant domain of research.

The “research providing the necessary insights to make the normative concept of sustainability operational, and the means to plan and implement adequate steps toward this end” (Spangenberg, 2012, p276) is called sustainability science that now stands as a discipline embracing the concept of sustainability at its core (Kates, 2011; Kates et al., 2001; Kauffman, 2009).

Consumer Demands

As the empirical evidence for sustainable practices accumulates, thanks to the global attention to the environment and the research efforts of academia, the public awareness of environmental issues has also heightened (Takala, 1991). Consumer environmental awareness grew exponentially in the early twenty-first century including the association between consumption and environmental issues such as global warming and pollution (Leonidou et al., 2010; Svensson & Wagner, 2012). Consumer psychological and behavioral changes affected by environmental factors have also been noted by researchers as public environmental awareness growth continues (Peattie & Crane, 2005). Studies suggest an environmentally friendly shift in consumer attitudes, preferences, intentions, and behaviors. As a result of the growing consumer environmental awareness, consumer demands for environmental responsibility in products and services have been consistently increasing since the emergence of the environmental movement in the 1960s (Szabo & Webster, 2020).

Pressures on Industry

The increasing consumer demand for products and services that are more environmentally friendly and the pressures from global agencies such as the Sustainable Development Goals by the United Nations (2017) have forced the shift of corporate agendas to a more environmentally responsible focus (King & Lenox, 2002). Consumers blame industry for many of the environmental issues along with the government (Ottman, 1992). Contemporarily,

environmental issues include global warming, ozone depletion and destruction, deforestation, a decline of biological diversity, acid rain pollution, land desertification, marine pollution, water pollution/freshwater resource shortage, toxic chemical pollution, and cross-border transfer of dangerous waste (Jianping et al., 2014).

All companies are challenged to integrate environmental issues into their business strategies and activities as well as functional areas including R&D, design, manufacturing, and marketing (Foster & Green, 2000; Lenox & Ehrenfeld, 1997; Mebratu, 1998; Nidumolu et al., 2009).

Corporate Environmentalism and Green Marketing

Socially and environmentally responsible actions by corporations are now generally understood as financially profitable. Corporate environmentalism, whether or not it is forced by the market or regulations, is now an area of strategic management that is a “win-win” for the environment and corporations (Lyon & Maxwell, 2013b). Consumer behavior research provides empirical evidence to support such financial benefits. Environmentally responsible products and services attract consumers more than ever before (DeWald et al., 2014; Han et al., 2009; Jang et al., 2011). Environmental attributes of a product or service influence consumer purchase decisions across cultures (Chen & Chai, 2010; Kalafatis et al., 1999; Laroche et al., 2001; Rashid et al., 2009; Sheth et al., 2011; Zsoka et al., 2013). Studies suggest that disclosing the environmental performance of a company, product, or service can lead to financially favorable results (Al-Tuwaijri et al., 2004; Konar & Cohen, 2001). However, organizational disclosure of environmental performance does not yield consistent gains.

Consumer Skepticism

A recent industry report suggests that a notable portion (a third) of consumers make their purchase decisions based on the social and environmental impact of products and services (Unilever, 2019). Green marketing is defined as “marketing that meets the present needs of consumers and businesses while also preserving or enhancing the ability of future generations to meet their needs” (Kotler & Armstrong, 2011, p583). Green marketing includes all activities that take advantage of consumer environmental orientation and refers to attempts to facilitate any exchanges for consumer satisfaction with needs of minimal impact on the natural environment (Polonsky, 1994; 2011).

Green marketing became prominent in the late 1980s and early 1990s and has been increasing exponentially (Ottman & Books, 1998; Sharma & Pai, 2015). Accumulated empirical evidence of the effectiveness of green marketing includes the reality that consumers are willing to sacrifice time and money more for green products and services (e.g. Eren-Erdogmus et al., 2016; Kim & Seock, 2019). The environmentally responsible orientation of a firm also enhances the corporate image and reputation from a consumer perspective (Balmer, 1998; Gray & Balmer, 1998; Hoeffler & Keller, 2002).

As corporate green claims have increased, consumer skepticism doubting the authenticity of the green initiatives has increased as well (Forehand & Grier, 2003; Lyon & Montgomery, 2013; Webb & Mohr, 1998). It is difficult for consumers to distinguish between truly environmental firms and firms that exploit the sustainability trend (Fukukawa et al., 2007). Consumers do not have the proper means to evaluate the green claims made by corporations, which results in misperceptions and skepticism (Ottman et al., 2006). When consumers become skeptical about green corporate claims, the claims are perceived as attempts to ‘greenwash’.

Greenwash

Reports by the environmental marketing firm Terrachoice (2009; 2010) revealed the reality of faulty claims of greenness. Those reports exposed that 98% of the products making environmental claims in 2009 misled consumers by committing one or more of the “seven sins of greenwashing”. The seven sins include the followings:

1. Sin of hidden trade-off
2. Sin of no proof
3. Sin of vagueness
4. Sin of worshipping a fake label
5. Sin of irrelevance
6. Sin of the lesser of two evils
7. Sin of fibbing

The reports depict corporate practices to mislead consumers so that they can acquire environmental benefits by selective disclosure of their environmental performance, also known as greenwashing (Bradford, 2007; Terrachoice, 2009).

Since the reports, greenwash has become a prominent concept in sustainability research, and the concept has been defined in several ways. The most widely accepted definitions explain greenwash as an idea of framing a ‘green’ appearance (Laufer, 2003), a selective disclosure of positive information about a company’s environmental performance purposefully neglecting the disclosure of negative information to foster an exaggerated positivity in the corporate image (Lyon & Maxwell, 2011), or an act of misleading consumers concerning the environmental initiatives of a company or the environmental benefits of a product or service (Parguel et al., 2011).

Consumer Skepticism

Consumer skepticism refers broadly to consumer distrust or disbelief of marketer actions including the motives of marketers, specific advertising claims, and public relations efforts (e.g., Ford, Smith, & Swasy, 1990; Obermiller & Spangenberg, 1998; Webb & Mohr, 1998).

Consumers are skeptical about environmental claims because the claims are often ambiguous and deceptive (Chen & Chang, 2013a). Skeptical consumers assert that numerous companies make exaggerated or false claims about their products' greenness (Hsu, 2011).

Consumer skepticism is considered as a major hurdle for successful marketing (Ellen et al., 2006) because skepticism damages the credibility of marketing, thus, the marketing loses efficiency (Pollay & Mittal, 1993). When advertised claims face skepticism, consumers suspect the sponsoring company's ulterior motives (Skarmeas & Leonidou, 2013). While the typical view of the skepticism concerned is about consumer knowledge and beliefs about deceptive claims, Forehand and Grier (2003) proposed that a negative attitude of consumers is driven by simple perceptions, not by actual knowledge or beliefs. Empirical evidence suggests that perceived deception negatively affects organizational credibility and consumers' attitude toward a product or a brand, and purchase intention (Newell et al., 1998).

Thus, when consumers negatively perceive a company's environmental claims, regardless of the company's intention or facts about the claim, the perception can undermine the credibility of the company and diminish the effectiveness of marketing.

Sustainability in Hospitality

Sustainability has been prominent in hospitality for both practitioners and researchers even though there has been criticism for the late entrance (Cavagnaro & Gehrels, 2009). Within the past decade, there has been an acknowledgment that hospitality entities started to take the concept of environmental sustainability seriously (Rheede & Blomme, 2012; Williams & Ponsford, 2009). Sustainability in the domain is considered a defining (Deloitte, 2014) and an essential (Sloan et al., 2013) issue while, at the same time, a paradoxical one (Jones et al., 2016) because, at the operational level, the industry markets various aspects of environmental performance, whereas, on the other hand, marketing messages often emphasize conspicuous consumption and experience that generally contrasts what environmental friendliness represents (Jones et al., 2016).

Additionally, Jauhari (2014) identifies green marketing as a rising topic with the key themes of sustainability research although the marketing research in the hospitality domain was criticized for the lack of attention to sustainability in the early years (Chabowski et al., 2011). Furthermore, Jones et al. (2016) acknowledge that the majority of sustainability research focus on the major players in the industry which explains the lack of attention to the sustainability of the foodservice industry which mostly consists of smaller operations.

As a matter of fact, the concept of sustainability has mainly been considered in the context of lodging and tourism rather than foodservice. International hotel chains increasingly emphasize their commitment to sustainability and integration of the concept into the core business strategy and organizational orientation (Jones et al., 2014). The growing body of knowledge on sustainability in the tourism sector has also been acknowledged as well (Williams & Ponsford, 2009). In the foodservice sector, the concept of sustainability is still considered one

of the emerging topics that a limited number of studies focused on with a narrow scope of restaurant operations or guest perceptions (Di Pietro, 2017).

Identification of Research Gaps

Greenwash Studies in Hospitality

As aforementioned, the hospitality domain has paid much attention to sustainability to conform to environmental demands and pressures. In recent years (2010-2018), the most reputable 13 journals in the domain (Gursoy & Sandstorm, 2016; Kim et al., 2019) published 1,118 articles related to environmental and social sustainability. However, academic attention to the matter of greenwash has been scarce despite the consumer skepticism toward green initiatives in the industry. Out of the 1,118 studies, only 61 studies (5.5%) mentioned the term “greenwash” or “greenwashing” and there have been only seven attempts to put the concept of greenwash at the center of the research intention. An extensive search yielded two more studies in the hospitality domain outside of the scope of journals and timeframe. Unfortunately, none of the nine studies are in the context of foodservice. Reviewing the major academic journals in the domain of hospitality identified that the domain lacks efforts to investigate the matter of greenwashing compared to other research fields including management, marketing, consumer behavior, and sustainability science. The scarce number of studies that considered the concept of greenwash at the center of the research attention belong to the domain of the lodging and the tourism industry.

Dimensions of Environmental Performance in Foodservice

While there are multiple dimensions of environmental performance (Lyon & Maxwell, 2011), most of the research on environmental performance in a foodservice operation has

focused on the food/ingredient-centric approach such as organic food, healthy food, or locally grown ingredients (Hwang & Lorenzen, 2008; McCall & Lynn, 2008). However, a recently proposed taxonomy suggests otherwise. Kwok, Huang, and Hu's (2016) proposed three dimensions of foodservice environmental performance: food, environment, and administration. First, the food dimension of environmental performance incorporates the use of organic or locally-grown ingredients. Generally, organic or locally-grown food ingredients are appealing to customers (Hu et al., 2010; Jang et al., 2011; Vieregge et al., 2007). Second, the environmental dimension includes initiatives regarding reducing, reusing, and recycling waste and saving energy, and improving efficiency, which is often referred to as three Rs and two Es (Glig et al., 2005). Third, the administration dimension refers to green certifications, CSR, and employee training for sustainable practices (Kwok et al., 2016). A restaurant's green certifications, CSR, and employee training are often perceived as indices of high product quality and low risks which eventually induce customer purchase decisions (Jeddi, 2010; Manaktola & Jahuari, 2007; Mohr & Webb, 2005; Schubert et al., 2010).

Green Perceptions

Although the concept of greenwash has been attracting considerable attention in other fields of research, the hospitality domain remains lacking the efforts to investigate the concept in the context of hospitality. Prior studies suggest that the concept of greenwash or, in this case, perceived greenwash needs to be examined in a structural framework including other relevant green perceptions. The green perceptions that have been tested with perceived greenwash include green trust (e.g., Chen & Chang, 2013a; 2013b; Chen, 2010; Chen 2013) and green confusion

(e.g., Chen & Chang, 2013a; Kelkar et al., 2014; Mainieri et al., 1997), which will be depicted later.

Research Questions

Based on the research gaps identified, this study presents research questions of which answers can fill the gaps identified:

1. What differences do the different dimensions of foodservice environmental performance create on consumer green perceptions toward the disclosure of environmental performance?
2. How do green perceptions emerge from the disclosure of environmental performance?
3. How do the green perceptions affect consumer attitudes and behavioral intentions toward the host firm of the environmental performance disclosure?

Purposes of Study

To properly answer the proposed research questions, this study proposes the development of a valid framework that can incorporate the dimensionality of foodservice environmental performance, green perceptions including perceived greenwash, a consequentially formed green image, consumer attitudes, and behavioral intentions.

CHAPTER II

Literature Review

Greenwash Studies in Hospitality

Although the number of studies is limited, some researchers have paid attention to the topic of greenwash in recent years (see Table 1). Besides the clear need for initiation in the foodservice domain, it is also certain that all the research domains in hospitality need more dedication to the matter of greenwash.

Table 1. Greenwash Studies in Hospitality

	Tourism	Lodging	Foodservice
Corporate Level	Self et al. (2010) Font and McCabe (2017) Font et al., (2017)	Bonilla Priego et al. (2011) Font et al. (2012) Geerts (2014)	None
Consumer Level	Smith & Font (2014)	Rahman et al. (2015) Chen et al. (2019)	None

Self et al. (2010) applied the criteria of the Mohonk Agreement for responsible ecotourism drafted in 2000 at the conference of Ecotourism and Sustainability Tourism Certification (Medina, 2005) and examined the websites of ecotourism businesses in the Galapagos island to identify whether the advertised products are to greenwash. The study found greenwashing in the disclosure of environmental policy, provision of benefits to local

communities, and sustainable practices. The study concerned the hindering effect of greenwash on ecotourism and emphasized effective communication of green principles and practices.

Bonilla-Priego et al. (2011) investigated the motivations and decision-making process of Spanish hotel management with Eco-Management and Audit Scheme (EMAS) certificates. The study identified four groups of hotels that are distinctive in the way that they are driven toward pro-environmental behavior. The four groups include strategic hotels (22%), followers (48%), greenwashers (11%), and laggards (19%). The study found that EMAS failed to establish a consistent advance in sustainable management systems and to play a role as a regulation tool. The study criticizes that most hotels aim to simply avoid legal challenges rather than to set environmental standards to acquire competitive advantages in the market.

Font et al. (2012) examined the greenwash issue of international hotel chains by identifying the disclosure-performance gaps, which can be understood as greenwashing in the context of environmental sustainability. CSR reports were used for content analysis (Wiseman, 1982) and six themes were identified: corporate policies, labor issues, socio-economic issues, environmental issues, customer engagement, and transparency. The results indicated that the disclosure-performance gap was greater on environmental issues and customer engagement than on the other themes. The study noted that there was a strong emphasis on the theme of environmental issues and concluded that larger hotel groups have broader disclosure-performance gaps than smaller hotel groups.

Smith & Font (2014) applied the signaling theory to posit that signaling responsibility reduces product uncertainty and, therefore, reduces perceived greenwash in the volunteer tourism industry. The study employed a web-based content analysis (Neuendorf, 2002; McMillan, 2000) to investigate the website content to identify the relationships between marketed responsibility

and price signaling by using perceptual mapping with designated keywords. The findings of content analysis indicate low market performance in marketing responsibility, selective disclosure that favors volunteers, the failure to differentiate, and the inverse relation between responsibility and price. The study criticized greenwashing demonstrated as over-positioned responsibility and inconsistent communication in volunteer tourism and proposed that industry-wide codes of conduct and regulations are in need.

Geerts (2014) employed a mixed-methods approach to investigate the effectiveness of green certificates through interviews with 21 hotel managers and content analysis of hotel websites. The study identified three schemes of green certificates: quality, membership and award, and third-party audits. The results suggest that the certificates motivate and promote the implementation of sustainable practices and provide clear information on the environmental performance of a hotel which, in turn, reduces the criticism of greenwashing, though the impact of green certificates on a hotel's profitability is inconclusive.

Rahman et al. (2015) investigated how consumers react to the environmental initiatives of a hotel and how the reactions impact consumer attitudes and behaviors. The theory of influential discounting behavior (Kelley, 1973), which is also referred to as the attribution theory, was employed to explain the acceptance of and reactions to the implementation of the linen and towel reuse program of a hotel. The study discusses the proposed structural relationships with the cognition – affect – behavior (CAB) paradigm. The CAB scheme has been an effective tool for consumer behavior analysis which posits that 'cognition' determines 'affect' and 'affect' results in 'behavior' (Howard & Sheth, 1969; Nicosia, 1966). The methodological approach took a quasi-experimental design that was scenario-based. The findings suggest that ulterior motives lead to consumer skepticism, which, in turn, negatively impacts the intention to

participate in the green initiative and the intention to revisit the hotel. Drawn upon Kelley's (1973) theory, the study concludes that consumers are more likely to be skeptical about green initiatives when recognizing multiple or ulterior motives. The study interestingly explained the hypothesized but nonsignificant moderating effect of ecological concern in the proposed model as a buffering effect between self-serving motivation and the expectancy – disconfirmation effect. The study depicted that the environmental motivation of consumers with high ecological concerns was diluted by the disconfirmation of high environmental expectations using Anderson's (1973) contrast theory.

Font and McCabe's (2017) review paper on sustainability and marketing in tourism provided a summary of theories, methods, and results of the latest studies in the domain. The study was to seek motivations, mechanisms, and barriers in sustainable tourism marketing. The study applied two fundamental marketing approaches including market development and product development to sustainability tourism marketing. The study identified greenwashing as one of the main barriers to the motivation of green organizational communication and the effectiveness of sustainability marketing.

Font et al., (2017) introduced the phenomenon of 'greenhushing' in the context of tourism. Greenhushing is defined as "the deliberate withholding, from customers and stakeholders, of information about the sustainability practices that they employ." The study conducted a content analysis on 31 websites of tourism businesses in a national park and revealed that only 30% of the sustainable practices were disclosed. The study found that the phenomenon of greenhushing is not only a result of the fear of claims of greenwashing but also an advertising attempt to play down the level of sustainability to where customers accept their conspicuous consumption.

Chen et al. (2019) developed an empirical structural model incorporating greenwash, green trust, negative word of mouth, intention to revisit, intention to participate in green practices, and prior experience with green hotels. The model was built upon the attribution theory (Heider, 1944) and the trust-based marketing theory (Urban, 2003). The empirical model and hypothesized relationships were tested via structural equation modeling and hierarchical regression analysis. The results suggest that perceived greenwash hurts green trust, green trust is positively associated with revisit intention and intention to participate in green practices. Green trust showed a negative relationship with negative word-of-mouth and prior experience positively moderated the effect of green trust on revisit intention, intention to participate, and negative word-of-mouth.

Why Companies Greenwash?

As greenwash has gained researchers' attention, two theories from information economics and institutional research have been widely adopted to explain the phenomenon of greenwash: persuasion games theory (Milgrom & Roberts, 1986) and legitimacy theory (Preston & Post, 1975; Hogner, 1982).

Persuasion Theory

The "persuasion games" introduced by Milgrom and Roberts (1986) explain well how companies are capable of greenwashing with the notion that consumers have to rely on the information disclosed by those companies. This notion of information disclosure means a variety of types of business communications, including corporate annual reports, 10-Ks, sustainability reports, CEO messages, websites, and advertising.

Information economics addresses a common problem that decision-makers (consumers and investors) need to rely on the information given by entities that are influenced directly by the decisions (Milgrom & Roberts, 1986). Corporations can manipulate the decisions of consumers and investors by distorting or concealing information crucial to the decision-making process (Lyon & Montgomery, 2013; Milgrom & Roberts, 1986). In this vein, greenwash has been investigated by economics researchers focusing on selective disclosure of information and how decision-makers respond to it (Lyon & Maxwell, 2011; Marquis et al., 2016).

Empirical evidence suggests that information disclosure is a selective and financial action; A voluntary information disclosure only occurs when the firm has “good news” to disclose (Milgrom, 1981; Verrecchia, 1983) and full disclosure may fail to occur when it is costly (Verrecchia, 1983). The problematic aspect of this selective information disclosure is that consumers are in a severely disadvantageous position because consumers generally do not have an independent and viable means to verify corporate claims or enough knowledge about corporate environmental performance (Lyon & Montgomery, 2013). The persuasion theory explains greenwash as exploitation of this informational disadvantage of consumers to mislead consumers (Lyon & Montgomery, 2013).

Overall, the persuasion theory and economics literature on the disclosure of environmental performance indicate that corporations have enough financial motivation to attempt to greenwash by selective information disclosure. While information economics emphasizes the role of information disclosure and its impact, institutional theory emphasizes the role of norms and values demanded by external constituencies concerning the decoupling of appearance from reality.

Legitimacy Theory

The legitimacy theory explains greenwashing as a strategic action of an organization. Demands of external constituencies are what organizations need to conform to maintain a legal license and social acceptance to operate, in other words, to achieve and maintain the appearance of legitimacy (DiMaggio & Powell, 1983; Meyer & Rowan, 1977). The legitimacy theory explains that disclosures of environmental performance are the results of strategic decisions to achieve the environmental legitimacy of an organization, which are rarely about environmental responsibilities or obligations (Brown & Deegan, 1998; Deegan et al., 2002; Deegan & Gordon, 1996; O'Donovan, 1999).

Environmental Legitimacy

Corporate environmental legitimacy is defined as “the generalized perception or assumption that a firm’s corporate environmental performance is desirable, proper, or appropriate” (Bansal & Clelland, 2004). Empirical evidence suggests that disclosure of environmental performance can be an effective tool to acquire, maintain, and enhance environmental legitimacy (Bansal & Clelland, 2004; Campbell, 2007; Castelló & Lozano, 2011; Laufer, 2003; Schultz & Wehmeier, 2010) and environmental legitimacy can reduce unsystematic risks for the firm (Bansal & Clelland, 2004).

Decoupling

The legitimacy theory recognizes greenwash as a special case of decoupling, which means a detachment of appearance from reality (Bansal & Clelland, 2004). When the environmental demands and pressures conflict with the interest of management, organizations may attempt to achieve environmental legitimacy without changing the organizational orientation or structure, in other words, make an environmental appearance without necessarily changing practices (Meyer & Rowan, 1977; Oliver, 1991; Scott, 1995; Westphal & Zajac, 2001).

Empirical evidence suggests that environmental legitimacy can be acquired and maintained by environmental decoupling (Aguinis & Glavas, 2012).

Risk of Perceived Greenwash

Consumers can often induce full disclosure of given information when they adopt a skeptical posture as they assume that the non-disclosed information would contain negative outcomes (Milgrom & Roberts, 1986). Similarly, empirical evidence suggests that managers hesitate to promote environmental engagement because many of the environmental deeds are attacked as greenwash (Peloza, 2005). Greenwash is, indeed, often criticized more than environmentally harmful actions by activists and consumers (Lyon & Montgomery, 2011). Chen et al., (2014) suggest that greenwash negatively affects word-of-mouth (WOM), perceived quality, and satisfaction.

How Greenwash is Perceived: Attribution Theory

The attribution theory (Heider, 1988; Kelley & Michela, 1980) has been widely used to investigate how individuals make the lay causal explanations of behaviors. The theory explains that individuals tend to make inferences about the cause, reason, or motive of a behavior (Nyilasy et al., 2014). Attributions refer to the cognitive process by which people use the information to make inferences and attributions to create a unit relationship (Heider, 1944; Jones & Davis, 1965). The purpose of making those inferences is to maintain affective and perceptual consistency. Naïve psychology asserts that people tend to keep a simple, consistent, univalent representation of a person or a group, in other words, cognitive evaluations are necessary psychologically (Crandell et al., 2007).

Internal factors, such as personality traits, moods, attitudes, and abilities, and external factors, often referred to as situational factors can affect attributions (Heider, 1944; Kelley & Michela, 1980). Environmental studies have proposed some external factors affecting the process. Walker et al. (2010) found that consumers form negative brand attitudes and negative purchase intentions when they perceive that CSR initiatives seem stakeholder-driven or conceited. Consumer attributions are also affected by the perceived fit between a company's core business model or orientation and the environmental initiatives and consistency of the commitment (Ellen et al., 2006; Forehand & Grier, 2003). Newell et al. (1998) claimed that low organizational credibility also negatively affects consumer attitudes toward the advertisement or brand, and purchase intention. Overall, the manifestation of perceived greenwash can be understood as a result of attributions, more specifically skeptical attributions.

Environmental Performance Disclosure and Dimensions

The attribution theory suggests that skeptical attributions, in other words, perceived greenwash is initiated from environmental disclosure, which may hinder positive attitudes or behavior changes (Friestad & Wright, 1994). The dimensionality of environmental performance has been examined in previous studies and demonstrated that different dimensions of environmental performance result in different consequences (Clarkson et al., 2011; Ingram & Frazier, 1980; Keat & Hitt, 1988; Sila & Cek, 2017; Tan et al., 2017). As aforementioned, a foodservice operation's environmental performance has three dimensions: food, administration, and environment (Kwok et al., 2016).

Green Perceptions

Green Confusion: Cognitive Load Theory

Consumers can be confused by the information about a product or service that is too similar, too complex, too ambiguous, or too much (Mitchell & Papavassiliou, 1999; Turnbull et al., 2000). Consumer confusion is defined as a consumer failure to make a correct comprehension of the information of a product or service (Turnbull et al., 2000). Consumer confusion is due to the limitation of the cognitive ability to process overloaded information (Langer et al., 2007). Information such as the environmental performance of a firm often incorporates ambiguous, misleading, and inadequate information to purposefully mislead consumers (Mitchell et al., 2005), which may result in green consumer confusion (Chen and Chang, 2013a). Thus, it is relevant to incorporate the concept of green confusion into the examination for this study.

Green Trust

Green trust is defined as “a willingness to depend on a product or service based on the belief or expectation resulting from its credibility, benevolence, and ability about environmental performance.” (Chen, 2010, p309). Due to the lack of a means to verify the environmental claims of a firm, consumers are not able to have a clear differentiation between true and false claims (Horiuchi & Schuchard, 2009). So, trust is the extent of the confidence that expectations would be met (Schurr & Ozanne, 1985) as well as the extent of the intention to take the vulnerability (Rousseau et al., 1998). Thus, consumers may express trust from the disclosure of environmental performance as an extent of the confidence that environmental expectations formed by the disclosure would be met, or as an extent of the intention to take the vulnerability by the disclosure.

Consumer Attitude

According to Ajzen and Fishbein (2000), attitudes were defined as a bipolar evaluation of an object, concept, or behavior. Dimensions of the evaluation include favor or disfavor, like or dislike, and good or bad. They stated that the evaluation is a sum of subjective values of customers and also asserted that the formulation of attitudes is associated with a set of attributes of the object, concept, or behavior.

Aligned with Ajzen and Fishbein's (2000) definition of attitudes, Jeong et al. (2014) defined customer attitudes toward a foodservice operation as "customers' evaluations of a particular establishment or brand in general, expressed as a dimension of favor or disfavor (good or bad)". The process of formulation of customer attitudes toward a firm involves subjective values (image) that consumers form from the attributes of the firm such as environmental performance. (Ajzen & Fishbein, 2000; Manaktola & Jauhari, 2007). Jeong et al. (2014) found that a green image formed by the environmental performance of a foodservice operation significantly influences customer attitudes toward the firm.

Moderator

Dispositional Skepticism

The attribution theory defines perceived greenwash as the skeptical attributions about environmental disclosure (Friestad & Wright, 1994). Skeptical attributions may be found internally as dispositional skepticism. Dispositional skepticism is a personality trait meaning an individual's general tendency is to be skeptical about the credibility of organizational disclosure (Ford et al., 1990; Forehand & Grier, 2003; Obermiller & Spangenberg, 1998). An individual's

level of skepticism positively affects the amount of doubt about the credibility of organizational communication (De Vries et al., 2015). Thus, individuals with higher dispositional skepticism are more likely to perceive greenwash from corporate environmental performance disclosures than those who have lower dispositional skepticism.

Hypotheses and Empirical Model Proposition

Based on the review of the literature, this study proposes the following hypotheses.

- H1a: Organizational green claims in the food dimension positively affect consumer green trust.
- H1b: Organizational green claims in the food dimension positively affect consumer green confusion.
- H1c: Organizational green claims in the food dimension positively affect perceived greenwashing.
- H2a: Organizational green claims in the environmental dimension positively affect consumer green trust.
- H2b: Organizational green claims in the environmental dimension positively affect consumer green confusion.
- H2c: Organizational green claims in the environmental dimension positively affect perceived greenwashing.
- H3a: Organizational green claims in the administrative dimension positively affect consumer green trust.
- H3b: Organizational green claims in the administrative dimension positively affect consumer green confusion.
- H3c: Organizational green claims in the administrative dimension positively affect perceived greenwashing.
- H4: Perceived greenwashing negatively affects consumer attitude toward the firm.
- H5: Green confusion negatively affects consumer attitude toward the firm.
- H6: Green trust positively affects consumer attitude toward the firm.
- H7: Consumer attitude toward the firm positively affects green purchase intention.
- H8: Dispositional skepticism affects the impact of organizational green claims on perceived greenwashing.

Based on the hypotheses, an empirical model was developed to propose a comprehensive framework investigating the relationships among the environmental dimensions, green perceptions, attitude, and behavioral intentions (Figure 1).

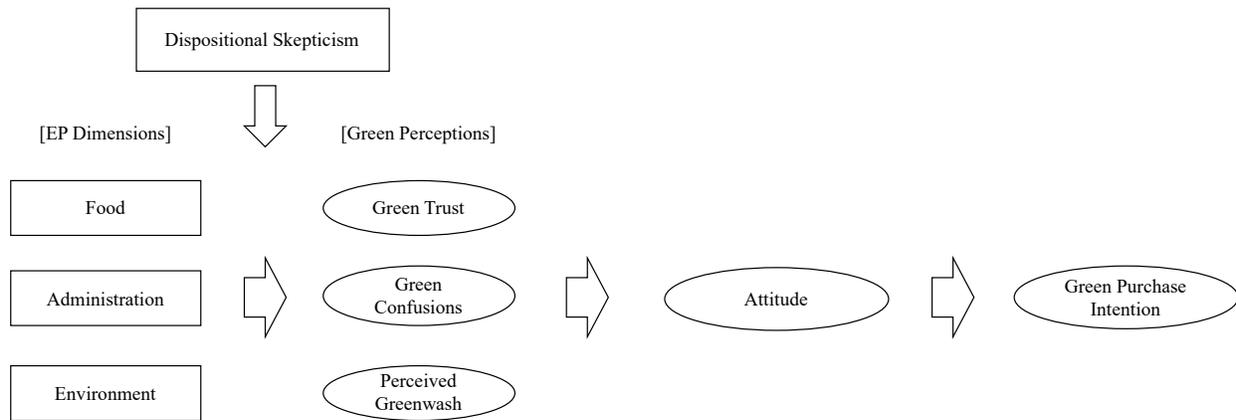


Figure 1. Empirical Model Proposition

CHAPTER III

Methodology

Overview

A comprehensive framework was examined incorporating the dimensions of foodservice environmental performance (Kwok et al., 2008) with the inclusion of green perceptions and dispositional skepticism (Ford et al., 1990; Forehand & Grier, 2003; Obermiller & Spangenberg, 1998) to fit the empirical model better for the context of foodservice.

Research Design

The empirical model was examined through four phases. The first phase was the development of separate statements for each of the foodservice environmental performance dimensions: food, administration, and environment. It was crucial for the study to develop statements depicting each dimension precisely. Multiple validation processes and the participation of experts in the hospitality domain ensured the desired quality of the statements. The second phase was the measurement development for the constructs of interest. Scales were carefully selected and adopted from valid and reputable studies. Thirdly, the measurement was examined and modified through the first step (confirmatory factor analysis, CFA) of the two-step approach suggested by Anderson and Gerbing (1988). Finally, in the fourth phase, the proposed structural model was examined through the second step of the two-step approach (Anderson & Gerbing, 1988) employing a structural equation modeling (SEM) and a multigroup analysis.

Environmental Performance Statements

As aforementioned, a foodservice operation's environmental performance consists of three dimensions: food, administration, and environment (Kwok et al., 2016). Three separate statements were developed under the supervision of experts in the domain. The content validity of each statement was examined by academic experts and industry professionals. The statements were of a fictitious foodservice firm to control established perceptions or personal relationships with an existing brand. Being fictitious is another crucial aspect of the statements because the fit between a company and environmental practices or consistency of environmental engagement affects consumer affective evaluation according to the attribution theory (Heider, 1988; Kelley & Michela, 1980). Additionally, existing firms may affect the results with established relationships with potential respondents, for example, brand loyalty. The food statement contained the foodservice operation's environmental performance related directly to food and ingredients such as the utilization of organic ingredients or locally sourced food. The administration statement claimed a foodservice operation's environmental performance in the administrative process such as reduction of waste, clean energy sources, and/or green certificates. The environment statement presented a foodservice operation's direct efforts on the environment such as donations to environmental organizations or participation in environmental activities.

The development of the statements started with collecting green organizational claims from well-established firms and brands such as Starbucks and Panera Bread. The collected messages were then categorized into three different dimensions and rephrased to increase readability and clarity. When an abundant amount of sample claims was gathered, the claims were organized to reduce the overall length and complexity.

After the development of each statement, eight versions of reports were prepared with various combinations of the environmental performance dimensions (see Table 1). A null report

containing none of the environmental statements was also developed to be utilized as a control. The report consisted of the operational and market performance of the fictitious foodservice firm without any environmental facets. The length of each version was controlled to be relatively comparable to control the amount of information that each version contained since the amount of information is one of the factors affecting consumer comprehension of the information according to the cognitive load theory (Mitchell & Papavassiliou, 1999; Turnbull et al., 2000). The individual dimension was treated as a dummy variable at the data analysis phase to investigate the hypothesized interaction effects among the dimensions.

Table 2. Report Versions

Report Version	Environmental Performance Dimensions		
	Food	Environment	Administration
0	X	X	X
1	O	X	X
2	X	O	X
3	X	X	O
4	O	O	X
5	O	X	O
6	X	O	O
7	O	O	O

Statements of individual dimensions are as the following:

Generic (null): *Popina Ficta Inc. was founded in 1984 and has ever since been dedicated to providing high-quality food and an industry-leading dining experience. During 2019, global sales went up by 5%, driven by a 3% increase in average tickets and a 2% increase in transactions. International store sales went up by 3%, driven by a 2% increase in average ticket and a 1% increase in transactions. During the fiscal year, the company opened 1278 net new stores, yielding 4% of year-to-year growth, ending the*

period with 32,938 stores globally, of which 51% and 49% were company-operated and licensed, respectively.

Popina Ficta Inc. consolidated net revenue of \$26.5 billion which grew by 7% over the prior year. The GAAP operating margin declined by 30 basis points year-over-year to 15.4%. The GAAP earnings per share were \$2.92, which declined by 10% over the prior year. The company returned \$12B to shareholders through a combination of share repurchases and dividends.

Food: *Popina Ficta Inc. continues our effort to reduce carbon footprint by purchasing local produce. In 2019, we purchased 35.5 million pounds of local produce from 62 local farmers, which was increased by 6.5 million pounds compared to the last year.*

We buy our ingredients from suppliers certified through Rainforest Alliance, UTZ, or Fairtrade. We only purchase RSPO-certified palm oil. We work closely with suppliers, veterinarians, academia, and farmers to reduce the use of antibiotics. Our principles for food include food safety, sustainability, and animal welfare.

Administration: *Popina Ficta Inc. built more than 1,500 LEED-certified stores around the world, and in early 2019, the Shanghai Flagship Store set a new benchmark in green retail as the first in China to be certified LEED platinum.*

More than 26,000 employees of Popina Ficta enrolled in our sustainability training programs. The Global Academy of Popina Ficta raises awareness of environmental issues and our employees involve themselves in those issues through the programs. We refuse to purchase any paper products from suppliers that knowingly cause deforestation.

Environment: *Popina Ficta Inc. is investing approximately \$97 million in up to 98 new community solar projects in the U.S.A. The projects will supply solar energy to 67,000+ households, small businesses, nonprofits, churches, universities, and Popina Ficta Stores.*

We consistently put our efforts into furnishing our stores out of recycled materials. We scientifically and systematically aim to reduce greenhouse gas emissions in our restaurants, offices, and across our supply chain. By 2030, we expect to downsize approximately 150 million tons of greenhouse gas emissions. This is equivalent to taking 32 million passenger cars off the road for an entire year.

Measurement Development

A set of measurements for the constructs of interest was developed. Items were adopted from established studies (Table 3) using the 7-point Likert scale (Strongly disagree to Strongly agree). The survey instrument also included items for the demographic profile of respondents including sex, age, location, household income, number of children in the household, and education.

Table 3. Constructs, Measurement Items, and References

<i>Constructs</i> (References)
Items
<i>Perceived Greenwash</i> (de Vries, 2015; Horiuchi & Schuchard, 2009; Parguel et al., 2011)
Popina Ficta Inc. seems to present itself as an environmentally friendly organization for its reputation.
I think that Popina Ficta has a hidden agenda.
I think that Popina Ficta pretends to be more environmentally friendly than it actually is.
<i>Green Confusions</i> (Chen & Chang, 2013a)
Due to the great similarity of organizational claims with respect to environmental performance, it is difficult to differentiate a restaurant from this company from other companies' restaurants.
It is difficult to recognize the differences between this company and other companies with respect to environmental performance.
There are so many brands you can purchase from that you are confused with respect to environmental performance when purchasing from this brand.
There are so many brands that it is difficult to decide which one you should choose with respect to environmental performance when making a purchase decision.
When purchasing from this brand you would rarely feel sufficiently informed with respect to environmental performance.

When purchasing from this brand, you would feel uncertain about its environmental performance.

Green Trust (Chen, 2010; Parguel et al., 2011)

I feel that this company's environmental reputation would be reliable.

I feel that this company's environmental performance would generally be dependable.

I feel that this company's environmental claims are generally trustworthy.

This company's environmental concern meets your expectations.

This company would keep promises and commitments for environmental protection.

Dispositional Skepticism (Obermiller & Spangenberg, 1998)

Organizational communications are a reliable source of information.

In general, organizational communications present a true picture.

I think that organizational communications are generally truthful.

I feel I have been accurately informed after viewing most organizational communications.

Consumer Attitude (Lee et al., 2014)

Not Attractive ----- Attractive

Bad ----- Good

Unappealing ----- Appealing

Unpleasant ----- Pleasant

Dull ----- Dynamic

Depressing ----- Refreshing

Not enjoyable ----- Enjoyable

Unfavorable ----- Favorable

Negative ----- Positive

Green Purchase Intention (Chan, 2001; Dodds et al, 1991)

I intend to purchase products from this company because of the environmental concerns.

I expect to purchase products from this company in the future because of the environmental performance.

Overall, I would be glad to purchase products from this company because of the environmental friendliness.

CHAPTER IV

Results

Data Collection

Participants were recruited through an online service called ‘Prolific’. Prolific is known for its superiority over other online platforms including Amazon Mechanical Turk. Various studies tested Prolific and found data collected from Prolific is reliable (Eyal, David, Andrew, Zak, & Ekaterina, 2021; Palan & Schitter, 2018). A total of 1,000 responses who reside in the U.S.A. and are fluent in English were collected. Participants were compensated at a rate of \$8/hour and participants spent 6.2 minutes on average to complete the survey. The survey contained one comprehension question that assessed the participant’s level of comprehension of the randomly presented statement, and two attention-check questions to ensure the integrity of the data. The comprehension question asked participants to choose multiple answers with information that was included in the randomly presented statement. The attention check questions asked the participants to choose a specific answer directly, for example, ‘Please select strongly agree.’ A data cleaning process eliminated 58 responses, which left 942 responses for the data analyses. The cleaning process first eliminate those who failed the attention check questions ($n = 23$) and then those who did not make 80% on the comprehension question were eliminated ($n = 35$).

Exploratory Factor Analysis and Reliability Test

Out of the 942 samples, 200 were randomly selected for preliminary tests including an exploratory factor analysis (EFA) and reliability test. For the EFA, maximum likelihood was used for the extraction method and Promax with Kaiser normalization. Cronbach’s alpha values

were utilized to determine the reliability of latent constructs. The pattern matrix suggested that the loadings were not ideal but not too concerning for the study as the measurement items and the latent constructs are pulled from reliable sources (Table 4). The values of Cronbach’s alpha were indicative of solid reliability of the measurement for the latent constructs even though one item of perceived greenwash (*Popina Ficta Inc. seems to present itself as an environmentally friendly organization for its reputation*) needed to be removed to achieve the desired level of the index (Table 5).

Table 4. EFA Pattern Matrix

	Factors				
	1	2	3	4	5
Favorable	.942				
Appealing	.936				
Positive	.928				
Pleasant	.909				
Good	.878				
Attractive	.827				
Enjoyable	.823				
Refreshing	.764				
Dynamic	.754				
GC03		.945			
GC04		.889			
GC01		.831			
GC02		.817			
GC06		.500		-.424	
GC05		.470			
GW03					
DS02			.955		
DS03			.926		

DS04	.884		
DS01	.873		
GT01		.996	
GT02		.967	
GT03		.786	
GT05		.751	
GT04		.672	
GW01		.418	
GE02		-.330	
GPI01			.946
GPI02			.916
GPI03	.312		.450

Note: Extraction Method: Maximum Likelihood, Rotation Method: Promax (Kappa = 4), Rotation converged in 6 iterations. Factor loadings smaller than .3 were suppressed.

Table 5. Reliability

Constructs	Cronbach's alpha
Perceived Greenwash*	.860
Green Confusion	.900
Green Trust	.950
Dispositional Skepticism	.947
Attitude	.967
Green Purchase Intention	.932

Note: * One item was removed.

Profile of Participants

The rest of the 742 responses were used for the main analyses. Randomly presented statements were fairly evenly distributed (Table 6). Participants' age ranged from 18 years old to 81 years old, 50% of them were under 36 years old and 75% of all participants were under 62 years old. Approximately half of the participants identified themselves as male ($n = 375$, 50.5%) and female ($n = 343$, 46.2%) while a small number of participants identified themselves as other ($n = 19$, 2.6%) or refused to identify their gender ($n = 5$, .7%). A dominant portion of the participants was Caucasian ($n = 579$, 77.8%). In regard to education, 37.6% of participants had a 4-year college degree ($n = 279$) and 47.1% of them earned a high school degree or had some college education experience ($n = 349$). More than a half of participants ($n = 389$, 52.3%) were single while 35.5% ($n = 264$) were married (Table 7).

Table 6. Performance Statement Exposures

Statements	<i>N</i>
Generic (Null)	92
Food	96
Environment	103
Administration	94
Food + Environment	87
Food + Administration	88
Administration + Environment	101
Food + Environment + Administration	81
Total	742

Table 7. Demographic Profile of Sample ($n = 742$)

	<i>n</i>	%
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Gender	Male	375	50.5
	Female	343	46.2
	Other	19	2.6
	Prefer not to answer	5	.7
Age	18-25	150	20.2
	25-35	204	27.5
	36-45	156	21.0
	46-55	96	12.9
	56-65	84	11.5
	66 and older	51	6.9
Ethnicity	White	579	78.0
	Black or African American	47	6.3
	American Indian or Alaska Native	8	1.1
	Asian	58	7.8
	Native Hawaiian or Pacific Islander	3	.4
	Other	47	6.3
Education	Less than high school	4	.5
	High school graduate	103	13.9
	Some college	163	22.0
	2 year degree	83	11.2
	4 year degree	279	37.6
	Master's degree	85	11.5
	Professional degree	16	2.2
	Doctorate	9	1.2
Marital Status	Married	264	35.6
	Widowed	14	1.9
	Divorced	65	8.8
	Separated	10	1.3
	Never married	389	52.4
Number of People in the household	1	146	19.7
	2	250	33.7

	3	153	20.6
	4	115	15.5
	5 or more	78	10.5
Number of children	0	519	69.9
in the household	1	105	14.2
	2	71	9.6
	3	33	4.4
	4	9	1.2
	5 or more	5	.7
Household Income	Less than \$10,000	39	5.3
	\$10,000 - \$19,999	46	6.2
	\$20,000 - \$29,999	79	10.6
	\$30,000 - \$39,999	80	10.6
	\$40,000 - \$49,999	62	8.4
	\$50,000 - \$59,999	79	10.6
	\$60,000 - \$69,999	63	8.5
	\$70,000 - \$79,999	43	5.8
	\$80,000 - \$89,999	47	6.3
	\$90,000 - \$99,999	44	5.9
	\$100,000 - \$149,999	100	13.5
	More than \$150,000	60	8.1

Data Analyses

Common Method Bias

Before the main analyses, Harman's single factor test (Podsakoff, 2003) was conducted to test the common method variance as the study employed a self-administered survey method that did not consider procedural remedies. The single factor extracted from all observed variables explained a total variance of 45.195% (Extraction: Principal Axis Factoring, Rotation: None), which was below 50% of the threshold (Podsakoff, 2003) and well below the 70% that was

suggested by Fuller, Simmering, Atnic, and Babin (2016). The common method bias was not a threat to the study.

Confirmatory Factor Analysis

A confirmatory factor analysis on latent constructs of perceived greenwash, green confusion, green trust, attitude, and green purchase intention was conducted to test the model fit and the construct validity. A few items were removed to ensure the model fit and construct validity (Table 8). The fit indices including chi-square ($\chi^2_{(179)} = 678.446, p < .001$), comparative fit index (CFI = .969), root mean square error of approximation (RMSEA = .061), standardized root mean squared residual (SRMR = .350) suggested that the model had an adequate fit. The values of average variance extracted (AVE) and composite reliability (CR) suggested evidence of convergent validity of the latent constructs and discriminant validity among the constructs (Table 9).

Table 8. Items Removed

<i>Constructs</i>
Items

Perceived Greenwash

Popina Ficta Inc. seems to present itself as an environmentally friendly organization for its reputation.

Green Confusions

Due to the great similarity of organizational claims with respect to environmental performance, it is difficult to differentiate a restaurant from this company from other companies' restaurants.

There are so many brands that it is difficult to decide which one you should choose with respect to environmental performance when making a purchase decision.

When purchasing from this brand, you would feel uncertain about its environmental performance.

Green Purchase Intention (Chan, 2001; Dodds et al, 1991)

I intend to purchase products from this company because of the environmental concerns.

Table 9. Confirmatory Factor Analysis Results

Construct	CR	AVE	Item Loadings
Perceived Greenwashing	.778	.778	
I think that Popina Ficta has a hidden agenda.			.882
I think that Popina Ficta pretends to be more environmentally friendly than it actually is.			.857
Green Confusion	.804	.582	
It is difficult to recognize the differences between this company and other companies with respect to environmental performance.			.826
There are so many brands you can purchase from that you are confused with respect to environmental performance when purchasing from this brand.			.834
When purchasing from this brand you would rarely feel sufficiently informed with respect to environmental performance.			.608
Green Trust	.952	.799	
I feel that this company's environmental reputation would be reliable.			.948
I feel that this company's environmental performance would generally be dependable.			.935
I feel that this company's environmental claims are generally trustworthy.			.916
This company's environmental concern meets your expectations.			.825

This company would keep promises and commitments for environmental protection.			.837
Attitude	.968	.769	
Attractive			.892
Good			.902
Appealing			.918
Pleasant			.909
Dynamic			.756
Refreshing			.819
Enjoyable			.854
Favorable			.911
Positive			.919
Green Purchase Intention	.871	.772	
I expect to purchase products from this company in the future because of the environmental performance.			.808
Overall, I would be glad to purchase products from this company because of the environmental friendliness.			.944

Structural Equation Modeling

A structural equation modeling was conducted to test the empirical model. The model fit indices suggested that the fit was adequate ($\chi^2_{(978)} = 2511.134, p < .001, CFI = .960, RMSEA = .033, SRMR = .484$). A priori test suggested that the model required the minimum sample size of 150 to detect a medium size effect considering the number of latent constructs (5) and observed variables (21) with a statistical power of .8 at the alpha level of .05 (Cohen, 1988; Westland, 2010).

Table 10. Standardized Regression Weights

	Standardized Regression Weights
	<i>n</i> = 742
Gen → GW	-.018
Gen → GC	.024
Gen → GT	-.014
Food → GW	-.117
Food → GC	-.328***
Food → GT	.625***
Env → GW	-.037
Env → GC	-.461***
Env → GT	.585***
Admin → GW	-.039
Admin → GC	-.332***
Admin → GT	.533***
Food x Env → GW	-.025
Food x Env → GC	.109
Food x Env → GT	-.426***
Food x Admin → GW	.092
Food x Admin → GC	.288**
Food x Admin → GT	-.462***
Admin x Env → GW	.040
Admin x Env → GC	.315***
Admin x Env → GT	-.487***
Food x Admin x Env → GW	-.030
Food x Admin x Env → GC	-.110
Food x Admin x Env → GT	.326***
GW → ATT	-.018
GC → ATT	-.081*
GT → ATT	.718***
ATT → GPI	.802***

Note: GW = Perceived Greenwash, GC = Green Confusion, GT = Green Trust, Env = Environment, Admin = Administration, ATT = Attitude, GPI = Green Purchase Intention, * $p < .05$, ** $p < .01$, *** $p < .001$.

The overall results suggest that organizational green claims did not affect perceived greenwash regardless of any single dimension or any combination of the dimensions. Meanwhile, three individual dimensions have a statistically significant impact on green confusion and green trust. The results of interaction terms indicate that the impact of organizational green claims on green confusion varies while green trust is consistent when more than one dimension is presented. Green confusion negatively affects attitude significantly while green trust has a positive impact on attitude. Attitude has a significant impact on green purchase intention. Green claims with more than one dimension have weaker impacts on green trust than claims with a single dimension. The results also indicate green trust is the main influencer of attitude among the three green perceptions (Table 10).

Multigroup Analysis

To investigate the moderating effect of dispositional skepticism, a multigroup analysis was conducted. Before the multigroup analysis, a measurement invariance test was performed to test the metric invariance and scalar invariance across the dispositional skepticism groups. The groups were divided with a median value of 5 for a balanced design, which resulted in a sample of 388 in the low dispositional skepticism group and a sample of 354 in the high dispositional skepticism group. The demographic profiles of the groups were comparable (Table 11)

Table 11. Demographic Profile across the Dispositional Skepticism Groups

Characteristics	Dispositional Skepticism Low ($n = 388$)	Dispositional Skepticism High ($n = 354$)

		<i>n</i>	%	<i>n</i>	%
Gender	Male	188	48.5	187	52.8
	Female	182	46.9	161	45.5
	Other	14	3.6	5	1.4
	Prefer not to answer	4	1.0	1	.3
Age	18-25	90	23.2	60	16.9
	25-35	119	30.7	85	24.0
	36-45	68	17.5	88	24.9
	46-55	42	10.8	54	15.3
	56-65	46	11.9	39	11.0
	66 and older	23	5.9	28	7.9
Ethnicity	White	302	77.8	277	78.2
	Black or African American	24	6.2	23	6.5
	American Indian or Alaska Native	3	.8	5	1.4
	Asian	30	7.7	28	7.9
	Native Hawaiian or Pacific Islander	2	.5	1	.3
	Other	27	7.0	20	5.6
	Education	Less than high school	2	.5	2
High school graduate		44	11.3	59	16.7
Some college		106	27.3	57	16.1
2 year degree		42	10.8	41	11.6
4 year degree		141	36.3	138	39.0
Master's degree		39	10.1	46	13.09
Professional degree		9	2.3	7	2.0
Doctorate		5	1.3	4	1.1
Marital Status	Married	122	31.4	142	40.1
	Widowed	5	1.3	9	2.5
	Divorced	37	9.5	28	7.9
	Separated	6	1.5	4	1.1

	Never married	218	56.2	171	48.3
Number of people in the household	1	97	25.0	49	13.8
	2	120	30.9	130	36.7
	3	74	19.1	79	22.3
	4	58	14.9	57	16.1
	5 or more	39	10.1	39	11.0
Number of children in the household	0	285	73.5	234	66.1
	1	52	13.4	53	15.0
	2	31	8.0	40	11.3
	3	12	3.1	21	5.9
	4	5	1.3	4	1.1
	5 or more	3	.8	2	.6
Household Income	Less than \$10,000	25	6.4	14	4.0
	\$10,000 - \$19,999	29	7.5	17	4.0
	\$20,000 - \$29,999	43	11.1	36	10.2
	\$30,000 - \$39,999	42	10.8	38	10.7
	\$40,000 - \$49,999	37	9.5	25	7.1
	\$50,000 - \$59,999	38	9.8	41	11.6
	\$60,000 - \$69,999	23	5.9	40	11.3
	\$70,000 - \$79,999	22	5.7	21	5.9
	\$80,000 - \$89,999	25	6.4	22	6.2
	\$90,000 - \$99,999	15	3.9	29	8.2
	\$100,000 - \$149,999	56	14.4	44	12.4
More than \$150,000	33	8.5	27	7.6	

The baseline model with no constraints across the groups showed a good fit ($\chi^2_{(358)} = 996.818, p < .001, CFI = .955, RMSEA = .049, SRMR = .042$). A metric model with constraints on factor loadings was tested for evidence of metric invariance and then a scalar model with constraints on intercepts was tested for evidence of scalar invariance. The chi-square differences

suggested that there were statistically significant differences between the baseline model and the nested model including the metric model and the scalar model. However, the differences in CFI, Mc NCI, and γ^{\wedge} suggested that there was no concerning reduction in model fit as a result of adding in the equality constraints (Table 9). Chueng and Rensvold (2002) suggest that the thresholds for the differences in CFI, McDonald's non-centrality index (Mc NCI), and gamma hat (γ^{\wedge}) are $<.01$, $<.02$, and $<.001$, respectively. Even though the chi-square difference test did not provide evidence of non-invariance between the less constrained model and the more constrained model, other indices generally suggest that the model has weak evidence of metric and scalar invariance (Table 12).

Table 12. Model Comparisons

Model description	χ^2	df	CFI	γ^{\wedge}	Mc NCI	$\Delta\chi^2$	Δ df	sig.	Δ CFI	Δ Mc NCI	$\Delta\gamma^{\wedge}$
1. baseline	996.816	358	0.955	0.924	0.650	-	-	-	-	-	-
2. metric	1073.935	374	0.951	0.916	0.624	77.119	16	0.000	0.004	0.026	0.008
3. scalar	1112.600	390	0.949	0.912	0.615	38.665	16	0.001	0.002	0.009	0.004

Table 13. Multigroup Analysis

	Dispositional Skepticism Low	Dispositional Skepticism High
	<i>n</i> = 388	<i>n</i> = 354
Gen → GW	-.072	-.036
Gen → GC	-.016	.027
Gen → GT	.027	.003
Food → GW	-.020	-.183
Food → GC	-.370***	-.267*
Food → GT	.645***	.683***
Env → GW	-.033	.029

Env → GC	-.371^{***}	-.526^{***}
Env → GT	.529^{***}	.705^{***}
Admin → GW	.097	-.057
Admin → GC	-.226 [*]	-.368 ^{**}
Admin → GT	.441^{***}	.636^{***}
Food x Env → GW	-.062	-.022
Food x Env → GC	.026	.160
Food x Env → GT	-.406 ^{***}	-.501 ^{***}
Food x Admin → GW	-.056	.137
Food x Admin → GC	.179	.331[*]
Food x Admin → GT	-.396 ^{***}	-.529 ^{***}
Admin x Env → GW	-.026	-.051
Admin x Env → GC	.167	.353^{**}
Admin x Env → GT	-.403 ^{***}	-.523 ^{***}
Food x Admin x Env → GW	.063	-.022
Food x Admin x Env → GC	.020	-.156
Food x Admin x Env → GT	.246	.385 ^{**}
GW → ATT	.000	-.025
GC → ATT	-.143	-.023
GT → ATT	.659 ^{***}	.694 ^{***}
ATT → GPI	.818 ^{***}	.692 ^{***}

Note: GW = Perceived Greenwash, GC = Green Confusion, GT = Green Trust, Env = Environment, Admin = Administration, ATT = Attitude, GPI = Green Purchase Intention, * $p < .05$, ** $p < .01$, *** $p < .001$.

The results of the multigroup analysis seemed similar to the results of the whole model. The nine relationships that were affected the most ($\Delta\beta > .150$) by the group difference included Admin on GC, Food x Admin on GW, Admin x Env on GC, Food x Admin x Env on GC, Env on GT, Food on GW, Env on GC, Admin on GW, and Food x Admin on GC. Among those relationships, statistically meaningful relationships included Env on GC, Env on GT, Admin on

GT, Food x Admin on GC, and Admin x Env on GC (Table 13). In the group with high dispositional skepticism, the green performance claims of environment affected green confusion and green trust more than in the low dispositional skepticism group. The green performance claims of administration affected green trust more in the high dispositional skepticism group than in the low dispositional skepticism group. Additionally, green confusion is more affected by the green performance claims of food/administration and administration/environment in the high dispositional skepticism group than in the low dispositional skepticism group.

Hypotheses Testing

After thorough testing of the hypotheses, the results were as followed.

Table 14. Hypotheses Tests

Hypotheses	Support
H1a: Organizational green claims in the food dimension positively affect consumer green trust.	O
H1b: Organizational green claims in the food dimension positively affect consumer green confusion.	O
H1c: Organizational green claims in the food dimension positively affect perceived greenwashing.	X
H2a: Organizational green claims in the environmental dimension positively affect consumer green trust.	O
H2b: Organizational green claims in the environmental dimension positively affect consumer green confusion.	O
H2c: Organizational green claims in the environmental dimension positively affect perceived greenwashing.	X
H3a: Organizational green claims in the administrative dimension positively affect consumer green trust.	O

H3b: Organizational green claims in the administrative dimension positively affect consumer green confusion.	O
H3c: Organizational green claims in the administrative dimension positively affect perceived greenwashing.	X
H4: Perceived greenwashing negatively affects consumer attitude toward the firm.	X
H5: Green confusion negatively affects consumer attitude toward the firm.	O
H6: Green trust positively affects consumer attitude toward the firm.	O
H7: Consumer attitude toward the firm positively affects green purchase intention.	O
H8: Dispositional skepticism affects the impact of organizational green claims on perceived greenwashing.	O

CHAPTER V

Discussion

Dimensions of Green Performance

The results suggest that each dimension of green performance affects consumer green perception differently from the general performance claim. All three dimensions affected consumer green perceptions, particularly green confusion and green trust. Perceived greenwash was not affected by any of the single dimensions or any combination of the dimensions. The food dimension affected green trust the most followed by the environmental dimension and administrative dimension. Green confusion was affected more by the environmental dimension than by the environmental dimension or the food dimension. This is inconsistent with the results of Kwok et al. (2016) as their results suggest consumers consider the environmental dimension more valuable than the other two dimensions. This study found that the food dimension had the strongest impact on green trust, which affects attitude the most, compared to environmental and administrative dimensions.

The combinations of green performance claims of the three dimensions did not necessarily provide any advantage over the green performance claims of a single dimension. The impact of interactions on green confusion was inconsistent and no evidence was observed that combinations of three dimensions increase the impact of green claims on green trust. According to the cognitive load theory (Mitchell & Papavassiliou, 1999; Turnbull et al., 2000), the added complexity of multiple dimensions presented hinders the positive impact of green performance claims on green trust as it becomes difficult for consumers properly comprehend the message.

Perceived Greenwash and Dispositional Skepticism

The study was an attempt to provide a framework surrounding green perceptions including perceived greenwash for the foodservice domain. The application of the dimensionality of environmental performance in the context of the foodservice domain was expected to contribute to the theoretical expansion of the model. The results identified that there were no meaningful differences observed among the dimensions. Each dimension generally has a meaningful impact on green confusion and green trust.

This is consistent with the fact that food quality is one of the most critical factors including service and ambiance when selecting a restaurant. Generally, environmentally friendly ingredients, such as organic and the locally-sourced are perceived to have superior quality to those that are not (i.e. Batte, Hooker, & Haab, 2007; Brennan, Gallagher, & McEachern, 2003; Torjusen, Sangstad, O'Doherty Jensen, & Kjærnes, 2004). In this vein, the lack of impact of organizational green claims on perceived greenwashing can be explained. So far, the concept of greenwashing has been heavily studied in various fields such as the chemical industry (i.e. Nyilasy, Gangdharbatla, & Paladino, 2014) and the petroleum industry (i.e. de Vries et al., 2015). In the foodservice industry, the concept of greenwashing is suspected to be not the crucial factor as consumers consider that the industry is less harmful to the environment than the aforementioned industries are.

Although investigating the role of dispositional skepticism was expected to theoretically reinforce the framework, the results did not yield any meaningful implications. The current literature cannot explain the observed differences in the impact of organizational green claims on green confusion and green trust by dispositional skepticism or making theoretical links.

Implications

This study attempted to investigate the green perceptions that have been neglected in the domain of foodservice. Perceived greenwash is a particularly novel concept in the domain as it has not been attracting much academic interest from researchers. The aforementioned industry-specific characteristics of the concept may have played a role because consumer recognition of the responsibility of the foodservice industry for the environment has not been widely spread. However, the truth is that restaurants are the number one energy consumers among all commercial retail outlets. One restaurant consumes the energy equivalent to 490 tons of carbon dioxide per year (Horovitz, 2008).

Environmental sustainability may not be the priority in the current quasi-post-pandemic context. The COVID-19 pandemic has heightened the awareness of social sustainability much more than environmental sustainability, especially in the domain of the foodservice operations. A recent study (Meija, Bak, Zientara, & Orłowski, 2022) identified that restaurants are required to perform socially sustainable initiatives as restaurants are the hubs that are public and communal.

The study also suggests practical strategic approaches to increase the marketing effect of the disclosure of foodservice environmental performance. The consistent observation is that all three dimensions of foodservice environmental performance increase consumer green confusion. Green confusion negatively affects consumer attitude toward the firm and, thus, negatively affects consumer green purchase intention. Even though the impact of green confusion on attitude is smaller than the impact of green trust on attitude, minimizing the negative impact of green confusion is necessary to maximize the effectiveness of environmental marketing.

Another consistent result is that mixed claims yielded a smaller impact on green trust than claims containing a single dimension. It is also notable that mixed claims did not necessarily

create a larger impact on green confusion. For practitioners to allocate limited resources to maximize the marketing efficiency of being green and minimize the risk of green confusion, foodservice organizational green claims need to be food-focused and single-dimensional. The uniquely skewed demographic profile of the data was notable as well. Lastly, as the majority of the participants were white, under 45 years old, and single or married with no children, this study's suggestions and implications are more applicable to the foodservice operations that target the specific groups.

Conclusion

As with all other studies, this study has limitations. The first limitation is our antecedents, organizational green claims, are dichotomous. Our key constructs including perceived greenwash and green confusion can be affected by the length, depth, and readability of the claims. Investing time and resources in developing various types of organizational claims may solve the problem but this study did not reach far enough due to practical reasons. Regarding the complexity and length of the statements, we expect different results from the current ones if some variance can be made in the statements. The added variance in the organizational claims can benefit the interpretation of the results in both theoretical and practical ways. Second, this study brings up a common concern of online-recruited participants. Although Prolific is known to be superior to Amazon Mechanical Turk and other cloud-sourcing platforms in terms of data integrity (Eyal, David, Andrew, Zak, & Ekaterina, 2021; Palan & Schitter, 2018), Prolific cannot avoid the inherent concerns of the online platform as well such as cheaters, lack of attentiveness, or bots. Thus, this study is not free from the external validity issue as the representativeness of the sample cannot be ensured. Additionally, this study is limited to U.S. consumers, and the sample demographic profile suggests skewed data.

Again, future studies should consider the added variance in the green performance claims. The variance will enable researchers to investigate the true interaction effects among the three dimensions. Moreover, nonlinear relationships between the performance claims and green perceptions may contribute to the discussion of attribution theory, information theory, or cognitive load theory as the possible nonlinear relationships may be able to account for the inconsistency in past studies. Future studies also expand the studies to other regions of the world. One of the constructs in interest of this study was dispositional skepticism as considered one of the internal attributions causing perceived greenwashing. Internal factors (cognitive factors) are generally under the influence of cultural background and social context (Turner, Oakes, Haslam, & McGarty, 1984).

In conclusion, green performance claims of the three dimensions in food, environment, and administration positively affect consumer green trust. Fortunately, consumers are not yet skeptical about green performance claims of foodservice corporations. Consumer skepticism is one of the greatest factors that discourage managers to implement green initiatives (Forehand & Grier, 2003; Obermiller & Spangenberg, 1998). The foodservice industry is not considered to be one that attempts greenwashing. Consumer confusion will occur if companies deliver messages that consumers are not familiar with or the messages are too complicated (Mitchell & Papavassiliou, 1999). This study identified that simpler claims have better results. Mixed and complicated claims reduce the impact on green trust. This study is expected to be the motivation for practitioners in the foodservice industry to implement green initiatives without fearing consumer skepticism and focus on a single dimension where the resources can be best invested.

LIST OF REFERENCES

- Aguinis, H., & Glavas, A. (2012). What we know and don't know about corporate social responsibility: A review and research agenda. *Journal of Management*, 38(4), 932-968.
- Ajzen, I., & Fishbein, M. (2000). Attitudes and the attitude-behavior relation: Reasoned and automatic processes. *European Review of Social Psychology*, 11(1), 1-33.
- Akhondan, H., Johnson-Carroll, K., & Rabolt, N. (2015). Health consciousness and organic food consumption. *Journal of Family & Consumer Sciences*, 107(3), 27-32.
- Al-Tuwaijri, S. A., Christensen, T. E., & Hughes Li, K. E. (2004). The relations among environmental disclosure, environmental performance, and economic performance: a simultaneous equations approach. *Accounting, Organizations and Society*, 29(5-6), 447-471.
- Anderson, R. E. (1973). Consumer dissatisfaction: The effect of disconfirmed expectancy on perceived product performance. *Journal of Marketing Research*, 10(1), 38-44.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411.
- Assael, H. (1984). *Consumer Behavior and Marketing Action*. Kent Pub.
- Azapagic, A., Perdan, S., & Shallcross, D. (2005). How much do engineering students know about sustainable development? The findings of an international survey and possible implications for the engineering curriculum. *European Journal of Engineering Education*, 30(1), 1-19.
- Balmer, J. M. (1998). Corporate identity and the advent of corporate marketing. *Journal of Marketing Management*, 14(8), 963-996.
- Bansal, P., & Clelland, I. (2004). Talking trash: Legitimacy, impression management, and unsystematic risk in the context of the natural environment. *Academy of Management Journal*, 47(1), 93-103.
- Batte, M. T., Hooker, N. H., Haab, T. C., & Beaverson, J. (2007). Putting their money where their mouths are: Consumer willingness to pay for multi-ingredient, processed organic food products. *Food Policy*, 32(2), 145-159.
- Bloemer, J., & De Ruyter, K. (1998). On the relationship between store image, store satisfaction and store loyalty. *European Journal of Marketing*, 32(5/6), 499-513.
- Bonilla Priego, M. J., Najera, J. J., & Font, X. (2011). Environmental management decision-making in certified hotels. *Journal of sustainable tourism*, 19(3), 361-381.
- Boulanger, P. M., & Bréchet, T. (2005). Models for policy-making in sustainable development: The state of the art and perspectives for research. *Ecological Economics*, 55(3), 337-350.

- Bradford, R. (2007). Greenwash confronted: Misleading advertisement regulation in the European Union and its member states. Retrieved from www.foeeurope.org/corporates/pdf/greenwash_confronted.pdf
- Brennan, C., Gallagher, K., & McEachern, M. (2003). A review of the 'consumer interest' in organic meat. *International Journal of Consumer Studies*, 27(5), 381-394.
- Brown, N., & Deegan, C. (1998). The public disclosure of environmental performance information—a dual test of media agenda setting theory and legitimacy theory. *Accounting and Business Research*, 29(1), 21-41.
- Brown, B. J., Hanson, M. E., Liverman, D. M., & Merideth, R. W. (1987). Global sustainability: toward definition. *Environmental Management*, 11(6), 713-719.
- Brundtland, G. H. (1987). Our common future—Call for action. *Environmental Conservation*, 14(4), 291-294.
- Campbell, J. L. (2007). Why would corporations behave in socially responsible ways? An institutional theory of corporate social responsibility. *Academy of Management Review*, 32(3), 946-967.
- Carrete, L., Castaño, R., Felix, R., Centeno, E., & González, E. (2012). Green consumer behavior in an emerging economy: confusion, credibility, and compatibility. *Journal of Consumer Marketing*, 29(7), 470-481.
- Carter, C. R., & Rogers, D. S. (2008). A framework of sustainable supply chain management: moving toward new theory. *International Journal of Physical Distribution & Logistics Management*, 38(5), 360-387.
- Castelló, I., & Lozano, J. M. (2011). Searching for new forms of legitimacy through corporate responsibility rhetoric. *Journal of Business Ethics*, 100(1), 11-29.
- Cavagnaro, E., & Gehrels, S. A. (2009). Sweet and sour grapes: Implementing sustainability in the hospitality industry – A case study. *Journal of Culinary Science & Technology*, 7(2-3), 181-195.
- Chabowski, B. R., Mena, J. A., & Gonzalez-Padron, T. L. (2011). The structure of sustainability research in marketing, 1958–2008: A basis for future research opportunities. *Journal of the Academy of Marketing Science*, 39(1), 55-70.
- Chang, H. H., & Chen, S. W. (2008). The impact of online store environment cues on purchase intention: Trust and perceived risk as a mediator. *Online Information Review*, 32(6), 818-841.
- Charter, M., & Polonsky, M. J. (1999). *Greener marketing: A global perspective on greening marketing practice*. Routledge.
- Chen, M. F. (2009). Attitude toward organic foods among Taiwanese as related to health consciousness, environmental attitudes, and the mediating effects of a healthy lifestyle. *British Food Journal*, 111(2), 165-178.
- Chen, M. F. (2011). The joint moderating effect of health consciousness and healthy lifestyle on consumers' willingness to use functional foods in Taiwan. *Appetite*, 57(1), 253-262.

- Chen, H., Bernard, S., & Rahman, I. (2019). Greenwashing in hotels: A structural model of trust and behavioral intentions. *Journal of Cleaner Production*, 206, 326-335.
- Chen, Y. S. (2010). The drivers of green brand equity: Green brand image, green satisfaction, and green trust. *Journal of Business Ethics*, 93(2), 307-319.
- Chen, T. B., & Chai, L. T. (2010). Attitude towards the environment and green products: Consumers' perspective. *Management Science and Engineering*, 4(2), 27-39.
- Chen, Y. S., & Chang, C. H. (2013a). Greenwash and green trust: The mediation effects of green consumer confusion and green perceived risk. *Journal of Business Ethics*, 114(3), 489-500.
- Chen, Y. S., & Chang, C. H. (2013b). Towards green trust. *Management Decision*, 51(1), 63-82.
- Chen, Y. S., Lin, C. L., & Chang, C. H. (2014). The influence of greenwash on green word-of-mouth (green WOM): The mediation effects of green perceived quality and green satisfaction. *Quality & Quantity*, 48(5), 2411-2425.
- Clark, W. C., & Munn, R. E. (1986). *Sustainable development of the biosphere*. Cambridge University Press.
- Clarkson, P. M., Overell, M. B., & Chapple, L. (2011). Environmental reporting and its relation to corporate environmental performance. *Abacus*, 47(1), 27-60.
- Crandall, C. S., Silvia, P. J., N'Gbala, A. N., Tsang, J. A., & Dawson, K. (2007). Balance theory, unit relations, and attribution: The underlying integrity of Heiderian theory. *Review of General Psychology*, 11(1), 12-30.
- Crum, M., Poist, R., Carter, C. R., & Easton, P. L. (2011). Sustainable supply chain management: evolution and future directions. *International Journal of Physical Distribution & Logistics Management*, 41(1), 46-62.
- Daly, H. E. (1996). *Beyond growth: the economics of sustainable development*. Boston, MA: Beacon Press.
- De Vries, G., Terwel, B. W., Ellemers, N., & Daamen, D. D. (2015). Sustainability or profitability? How communicated motives for environmental policy affect public perceptions of corporate greenwashing. *Corporate Social Responsibility and Environmental Management*, 22(3), 142-154.
- Deegan, C., & Gordon, B. (1996). A study of the environmental disclosure practices of Australian corporations. *Accounting and Business Research*, 26(3), 187-199.
- Deegan, C., Rankin, M., & Tobin, J. (2002). An examination of the corporate social and environmental disclosures of BHP from 1983-1997: A test of legitimacy theory. *Accounting, Auditing & Accountability Journal*, 15(3), 312-343.
- Dekker, R., Bloemhof, J., & Mallidis, I. (2012). Operations Research for green logistics—An overview of aspects, issues, contributions and challenges. *European Journal of Operational Research*, 219(3), 671-679.
- Deloitte. (2014, May). *Annual Report 2013/2014*. Retrieved from <https://www2.deloitte.com/content/dam/Deloitte/nl/Documents/about-deloitte/deloitte-nl-annual-report-2013-2014.pdf>

- Dennis, C., Harris, L., Peattie, K., & Crane, A. (2005). Green marketing: legend, myth, farce or prophesy?. *Qualitative Market Research: An International Journal*, 8(4), 357-370.
- DeWald, B., Bruin, B. J., & Jang, Y. J. (2014). US consumer attitudes towards “green” restaurants. *Anatolia*, 25(2), 171-180.
- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147-160.
- Di Pietro, R. (2017). Restaurant and foodservice research. *International Journal of Contemporary Hospitality Management*. 29(4), 1203-1234.
- Dunlap, R. E., & Jones, R. E. (2002). Environmental concern: Conceptual and measurement issues. *Handbook of Environmental Sociology*, 3(6), 482-524.
- Ellen, P. S., Webb, D. J., & Mohr, L. A. (2006). Building corporate associations: Consumer attributions for corporate socially responsible programs. *Journal of the Academy of Marketing Science*, 34(2), 147-157.
- Eren-Erdogmus, İ., Lak, H. S., & Çiçek, M. (2016). Attractive or credible celebrities: who endorses green products better?. *Procedia-Social and Behavioral Sciences*, 235, 587-594.
- Eyal, P., David, R., Andrew, G., Zak, E., & Ekaterina, D. (2021). Data quality of platforms and panels for online behavioral research. *Behavior Research Methods*, 1-20.
- Follows, S. B., & Jobber, D. (2000). Environmentally responsible purchase behaviour: a test of a consumer model. *European Journal of Marketing*, 34(5-6), 723-746.
- Font, X., Elgammal, I., & Lamond, I. (2017). Greenhushing: The deliberate under communicating of sustainability practices by tourism businesses. *Journal of Sustainable Tourism*, 25(7), 1007-1023.
- Font, X., & McCabe, S. (2017). Sustainability and marketing in tourism: Its contexts, paradoxes, approaches, challenges and potential. *Journal of Sustainable Tourism*, 25(7), 869-883.
- Font, X., Walmsley, A., Cogotti, S., McCombes, L., & Häusler, N. (2012). Corporate social responsibility: The disclosure–performance gap. *Tourism Management*, 33(6), 1544-1553.
- Ford, G. T., Smith, D. B., & Swasy, J. L. (1990). Consumer skepticism of advertising claims: Testing hypotheses from economics of information. *Journal of Consumer Research*, 16(4), 433-441.
- Forehand, M. R., & Grier, S. (2003). When is honesty the best policy? The effect of stated company intent on consumer skepticism. *Journal of Consumer Psychology*, 13(3), 349-356.
- Foster, C., & Green, K. (2000). Greening the innovation process. *Business Strategy and the Environment*, 9(5), 287-303.
- Friestad, M., & Wright, P. (1994). The persuasion knowledge model: How people cope with persuasion attempts. *Journal of Consumer Research*, 21(1), 1-31.

- Fukukawa, K., Shafer, W. E., & Lee, G. M. (2007). Values and attitudes toward social and environmental accountability: A study of MBA students. *Journal of Business Ethics*, 71(4), 381-394.
- Fuller, C. M., Simmering, M. J., Atinc, G., Atinc, Y., & Babin, B. J. (2016). Common methods variance detection in business research. *Journal of Business Research*, 69(8), 3192-3198.
- Garetti, M., & Taisch, M. (2012). Sustainable manufacturing: trends and research challenges. *Production Planning & Control*, 23(2-3), 83-104.
- Geerts, W. (2014). Environmental certification schemes: Hotel managers' views and perceptions. *International Journal of Hospitality Management*, 39, 87-96.
- Gilg, A., Barr, S., & Ford, N. (2005). Green consumption or sustainable lifestyles? Identifying the sustainable consumer. *Futures*, 37(6), 481-504.
- Gillespie, E. (2008). Stemming the tide of 'greenwash'. *Consumer Policy Review*, 18(3), 79-83.
- Graedel, T. E., & Allenby, B. R. (2010). *Industrial Ecology and Sustainable Engineering: International Edition*. Pearson Education Inc., Upper Saddle River, NJ: Prentice Hall.
- Grant, J. (2008). Green marketing. *Strategic Direction*, 24(6), 25-27.
- Gray, E. R., & Balmer, J. M. (1998). Managing corporate image and corporate reputation. *Long Range Planning*, 31(5), 695-702.
- Gursoy, D., & Sandstrom, J. K. (2016). An updated ranking of hospitality and tourism journals. *Journal of Hospitality & Tourism Research*, 40(1), 3-18.
- Han, H., Hsu, L. T. J., & Lee, J. S. (2009). Empirical investigation of the roles of attitudes toward green behaviors, overall image, gender, and age in hotel customers' eco-friendly decision-making process. *International Journal of Hospitality Management*, 28(4), 519-528.
- Han, H., Lee, M. J., & Kim, W. (2018). Promoting towel reuse behaviour in guests: A water conservation management and environmental policy in the hotel industry. *Business Strategy and the Environment*, 27(8), 1302-1312.
- Hartmuth, G., Huber, K., & Rink, D. (2008). Operationalization and contextualization of sustainability at the local level. *Sustainable Development*, 16 (4), 261-270.
- Heider, F. (1944). Social perception and phenomenal causality. *Psychological Review*, 51(6), 358-374.
- Hensman, G. H., & Samarasinghe, D. R. The impact of health consciousness as a moderator on sustainable consumption behaviour: Future propositions. *EPRA International Journal of Research and Development*, 3(8), 51-55.
- Hoeffler, S., & Keller, K. L. (2002). Building brand equity through corporate societal marketing. *Journal of Public Policy & Marketing*, 21(1), 78-89.
- Hogner, R. H. (1982). Corporate social reporting: eight decades of development at US Steel. *Research in Corporate Performance and Policy*, 4(1), 243-250.
- Horiuchi, R., & Schuchard, R. (2009). *Understanding and preventing greenwash: A business guide*. Futerra Sustainability Communications.

- Howard, J. A., & Sheth, J. N. (1969), *The theory of buyer behavior*. John Wiley and Sons.
- Hsu, T. (2011, May 21). Skepticism grows over products touted as eco-friendly. *Los Angeles Times*. Retrieved from <https://www.latimes.com/business/la-xpm-2011-may-21-la-fi-greenwash-20110521-story.html>
- Hsu, S. Y., Chang, C. C., & Lin, T. T. (2016). An analysis of purchase intentions toward organic food on health consciousness and food safety with/under structural equation modeling. *British Food Journal*, 118(1), 200-216.
- Hu, H., Parsa, H., & Self, J. (2010). The dynamics of green restaurant patronage. *Cornell Hospitality Quarterly*, 51(3), 344-362.
- Hwang, J., & Lorenzen, C. L. (2008). Effective nutrition labeling of restaurant menu and pricing of healthy menu. *Journal of Foodservice*, 19(5), 270-276.
- Ingram, R. W., & Frazier, K. B. (1980). Environmental performance and corporate disclosure. *Journal of Accounting Research*, 18(2), 614-622.
- Jang, Y. J., Kim, W. G., & Bonn, M. A. (2011). Generation Y consumers' selection attributes and behavioral intentions concerning green restaurants. *International Journal of Hospitality Management*, 30(4), 803-811.
- Jansson, J., Marell, A., & Nordlund, A. (2010). Green consumer behavior: determinants of curtailment and eco-innovation adoption. *Journal of Consumer Marketing*, 27(4), 358-370.
- Jauhari, V. (Ed.). (2014). *Managing sustainability in the Hospitality and Tourism Industry: Paradigms and Directions for the Future*. CRC Press.
- Jayal, A. D., Badurdeen, F., Dillon Jr, O. W., & Jawahir, I. S. (2010). Sustainable manufacturing: Modeling and optimization challenges at the product, process and system levels. *CIRP Journal of Manufacturing Science and Technology*, 2(3), 144-152.
- Jeddi, N. (2010). The Impact of Label Perception on the Consumers' Purchase Intention: An application on food products. *IBIMA Business Review*, 1-14.
- Jeong, E., Jang, S. S., Day, J., & Ha, S. (2014). The impact of eco-friendly practices on green image and customer attitudes: An investigation in a café setting. *International Journal of Hospitality Management*, 41, 10-20.
- Jianping, L., Minrong, L., Jinnan, W., Jianjian, L., Hongwen, S., & Maoxing, H. (2014). Global environmental issues and human wellbeing. In *Report on Global Environmental Competitiveness (2013)* (pp. 3-21). Springer, Berlin, Heidelberg.
- Jones, E. E., & Davis, K. E. (1965). From acts to dispositions the attribution process in person perception. *Advances in experimental social psychology*, 2, 219-266.
- Jones, P., Hillier, D., & Comfort, D. (2014). Sustainability in the global hotel industry. *International Journal of Contemporary Hospitality Management*, 26(1), 5-17.
- Jones, P., Hillier, D., & Comfort, D. (2016). Sustainability in the hospitality industry. *International Journal of Contemporary Hospitality Management*, 28(1), 1-32.

- Joung, C. B., Carrell, J., Sarkar, P., & Feng, S. C. (2013). Categorization of indicators for sustainable manufacturing. *Ecological Indicators*, 24, 148-157.
- Jovane, F., Yoshikawa, H., Alting, L., Boer, C. R., Westkamper, E., Williams, D., ... & Paci, A. M. (2008). The incoming global technological and industrial revolution towards competitive sustainable manufacturing. *CIRP Annals*, 57(2), 641-659.
- Kalafatis, S. P., Pollard, M., East, R., & Tsogas, M. H. (1999). Green marketing and Ajzen's theory of planned behaviour: a cross-market examination. *Journal of Consumer Marketing*. 16(5), 441-460.
- Kates, R. W. (2011). What kind of a science is sustainability science?. *Proceedings of the National Academy of Sciences*, 108(49), 19449-19450.
- Kates, R. W., Clark, W. C., Corell, R., Hall, J. M., Jaeger, C. C., Lowe, I., McCarthy, J. J., Schellnhuber, H. J., Bolin, B., Dickson, N. M., Faucheux, S., Gallopin, G. C., Gruber, A., Huntley, B., Jager, J., Jodha, N. S., Kasperson, R. E., Mabogunje, A., Matson, P., Harold, M., Moore III, B., O'Riordan, T., & Svedin, U. (2001). Sustainability science. *Science*, 292(5517), 641-642.
- Kauffman, J. (2009). Advancing sustainability science: report on the International Conference on Sustainability Science (ICSS) 2009. *Sustainability Science*, 4(2), 233.
- Keats, B. W., & Hitt, M. A. (1988). A causal model of linkages among environmental dimensions, macro organizational characteristics, and performance. *Academy of Management Journal*, 31(3), 570-598.
- Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing*, 57(1), 1-22.
- Kelkar, M., Coleman, L. J., Bahnan, N., & Manago, S. (2014). Green consumption or green confusion. *Journal of Strategic Innovation and Sustainability*, 9(1/2), 41.
- Kelley, H. H. (1973). The processes of causal attribution. *American Psychologist*, 28(2), 107.
- Kelley, H. H., & Michela, J. L. (1980). Attribution theory and research. *Annual Review of Psychology*, 31(1), 457-501.
- Kim, S. H., & Seock, Y. K. (2019). The roles of values and social norm on personal norms and pro-environmentally friendly apparel product purchasing behavior: The mediating role of personal norms. *Journal of Retailing and Consumer Services*, 51, 83-90.
- Kim, C. S., Bai, B. H., Kim, P. B., & Chon, K. (2018). Review of reviews: A systematic analysis of review papers in the hospitality and tourism literature. *International Journal of Hospitality Management*, 70, 49-58.
- King, A., & Lenox, M. (2002). Exploring the locus of profitable pollution reduction. *Management Science*, 48(2), 289-299.
- Konar, S., & Cohen, M. A. (2001). Does the market value environmental performance?. *Review of Economics and Statistics*, 83(2), 281-289.
- Kotler, P., & Armstrong, G. (2011). *Principles of marketing* (14th ed). Pentice Hall.

- Kriwy, P., & Mecking, R. A. (2012). Health and environmental consciousness, costs of behaviour and the purchase of organic food. *International Journal of Consumer Studies*, 36(1), 30-37.
- Kusumawati, A., Utomo, H. S., Suharyono, S., & Sunarti, S. (2020). Effects of sustainability on WoM intention and revisit intention, with environmental awareness as a moderator. *Management of Environmental Quality: An International Journal*, 31(1), 273-288.
- Kwok, L., Huang, Y. K., & Hu, L. (2016). Green attributes of restaurants: What really matters to consumers?. *International Journal of Hospitality Management*, 55, 107-117.
- Lai, K. H., & Wong, C. W. (2012). Green logistics management and performance: Some empirical evidence from Chinese manufacturing exporters. *Omega*, 40(3), 267-282.
- Langer, A., & Eisend, M. (2007). The impact of eco-labels on consumers: less information, more confusion?. *ACR European Advances*, 8, 338-339.
- 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.
- Laufer, W. S. (2003). Social accountability and corporate greenwashing. *Journal of Business Ethics*, 43(3), 253-261.
- Lee, K., Conklin, M., Cranage, D. A., & Lee, S. (2014). The role of perceived corporate social responsibility on providing healthful foods and nutrition information with health-consciousness as a moderator. *International Journal of Hospitality Management*, 37, 29-37.
- Lenox, M., & Ehrenfeld, J. (1997). Organizing for effective environmental design. *Business Strategy and the Environment*, 6(4), 187-196.
- Leonidou, L. C., Leonidou, C. N., & Kvasova, O. (2010). Antecedents and outcomes of consumer environmentally friendly attitudes and behaviour. *Journal of Marketing Management*, 26(13-14), 1319-1344.
- Liverman, D. M., Hanson, M. E., Brown, B. J., & Merideth, R. W. (1988). Global sustainability: toward measurement. *Environmental Management*, 12(2), 133-143.
- Lyon, T. P., & Maxwell, J. W. (2011). Greenwash: Corporate environmental disclosure under threat of audit. *Journal of Economics & Management Strategy*, 20(1), 3-41.
- Lyon, T. P., & Montgomery, A. W. (2013). Tweetjacked: The impact of social media on corporate greenwash. *Journal of Business Ethics*, 118(4), 747-757.
- Lyon, T. P., & Maxwell, J. W. (2013). On the profitability of corporate environmentalism. *The Oxford Handbook of Managerial Economics*, 559-584.
- Mainieri, T., Barnett, E. G., Valdero, T. R., Unipan, J. B., & Oskamp, S. (1997). Green buying: The influence of environmental concern on consumer behavior. *The Journal of social Psychology*, 137(2), 189-204.

- Manaktola, K., & Jauhari, V. (2007). Exploring consumer attitude and behaviour towards green practices in the lodging industry in India. *International Journal of Contemporary Hospitality Management*, 19(5), 364-377.
- Marquis, C., Toffel, M. W., & Zhou, Y. (2016). Scrutiny, norms, and selective disclosure: A global study of greenwashing. *Organization Science*, 27(2), 483-504.
- Matthes, J., & Wonneberger, A. (2014). The skeptical green consumer revisited: Testing the relationship between green consumerism and skepticism toward advertising. *Journal of advertising*, 43(2), 115-127.
- Matzler, K., Stieger, D., & Fu"ller, J. (2011). Consumer confusion in internet-based mass customization: Testing a network of antecedents and consequences. *Journal of Consumer Policy*, 34(2), 231-247.
- McCall, M., & Lynn, A. (2008). The effects of restaurant menu item descriptions on perceptions of quality, price, and purchase intention. *Journal of Foodservice Business Research*, 11(4), 439-445.
- McKinnon, A., Browne, M., Whiteing, A., & Piecyk, M. (Eds.). (2015). *Green logistics: Improving the environmental sustainability of logistics*. Kogan Page Publishers.
- McMillan, S. J. (2000). The microscope and the moving target: The challenge of applying content analysis to the World Wide Web. *Journalism & Mass Communication Quarterly*, 77(1), 80-98.
- Mebratu, D. (1998). Sustainability and sustainable development: historical and conceptual review. *Environmental Impact Assessment Review*, 18(6), 493-520.
- Medina, L. K. (2005). Ecotourism and certification: Confronting the principles and pragmatics of socially responsible tourism. *Journal of Sustainable Tourism*, 13(3), 281-295.
- Mejia, C., Ba"ak, M., Zientara, P., & Orłowski, M. (2022). Importance-performance analysis of socially sustainable practices in US restaurants: A consumer perspective in the quasi-post-pandemic context. *International Journal of Hospitality Management*, 103, 1-10.
- Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), 340-363.
- Michaelidou, N., & Hassan, L. M. (2008). The role of health consciousness, food safety concern and ethical identity on attitudes and intentions towards organic food. *International Journal of Consumer Studies*, 32(2), 163-170.
- Mishra, D. P., Heide, J. B., & Cort, S. G. (1998). Information asymmetry and levels of agency relationships. *Journal of Marketing Research*, 35(3), 277-295.
- Mitchell, V. W., & Papavassiliou, V. (1999). Marketing causes and implications of consumer confusion. *Journal of Product & Brand Management*, 8(4), 319-339.
- Mitchell, V. W., Walsh, G., & Yamin, M. (2005). Towards a conceptual model of consumer confusion. *ACR North American Advances*, 32, 143-150.
- Milgrom, P., & Roberts, J. (1986). Relying on the information of interested parties. *Rand Journal of Economics*, 17(1), 18-32.

- Milgrom, P. R. (1981). Good news and bad news: Representation theorems and applications. *The Bell Journal of Economics*, 380-391.
- Moran, D. D., Wackernagel, M., Kitzes, J. A., Goldfinger, S. H., & Boutaud, A. (2008). Measuring sustainable development—Nation by nation. *Ecological Economics*, 64(3), 470-474.
- Neuendorf, K. A. (2002). *The content analysis guidebook*. SAGE.
- Newell, S. J., Goldsmith, R. E., & Banzhaf, E. J. (1998). The effect of misleading environmental claims on consumer perceptions of advertisements. *Journal of Marketing Theory and Practice*, 6(2), 48-60.
- Nguyen, N., & Leblanc, G. (2001). Corporate image and corporate reputation in customers' retention decisions in services. *Journal of Retailing and Consumer Services*, 8(4), 227-236.
- Nicosia, F. M. (1966). *Consumer decision processes*. Prentice-Hall
- Nidumolu, R., Prahalad, C. K., & Rangaswami, M. R. (2009). Why sustainability is now the key driver of innovation. *Harvard Business Review*, 87(9), 56-64.
- Nyilasy, G., Gangadharbatla, H., & Paladino, A. (2014). Perceived greenwashing: The interactive effects of green advertising and corporate environmental performance on consumer reactions. *Journal of Business Ethics*, 125(4), 693-707.
- Obermiller, C., & Spangenberg, E. R. (1998). Development of a scale to measure consumer skepticism toward advertising. *Journal of Consumer Psychology*, 7(2), 159-186.
- O'Donovan, G. (1999). Managing legitimacy through increased corporate environmental reporting: an exploratory study. *Interdisciplinary Environmental Review*, 1(1), 63-99.
- Oliver, C. (1997). Sustainable competitive advantage: combining institutional and resource-based views. *Strategic Management Journal*, 18(9), 697-713.
- Ottman, J. A. (1992). Industry's response to green consumerism. *Journal of Business Strategy*, 13(4), 3-7.
- Ottman, J. A., & Books, N. B. (1998). Green marketing: opportunity for innovation. *The Journal of Sustainable Product Design*, 60(7), 136-667.
- Ottman, J. A., & Humphrey, H. H. (1993). *Green marketing* (Vol. 2). NTC Business Books.
- Ottman, J. A., Stafford, E. R., & Hartman, C. L. (2006). Avoiding green marketing myopia: Ways to improve consumer appeal for environmentally preferable products. *Environment: Science and Policy for Sustainable Development*, 48(5), 22-36.
- Padgett, D., & Allen, D. (1997). Communicating experiences: A narrative approach to creating service brand image. *Journal of Advertising*, 26(4), 49-62.
- Palan, S., & Schitter, C. (2018). Prolific. ac—A subject pool for online experiments. *Journal of Behavioral and Experimental Finance*, 17, 22-27.
- Parguel, B., Benoît-Moreau, F., & Larceneux, F. (2011). How sustainability ratings might deter 'greenwashing': A closer look at ethical corporate communication. *Journal of Business Ethics*, 102(1), 15-28.

- Parguel, B., Benoit-Moreau, F., & Russell, C. A. (2015). Can evoking nature in advertising mislead consumers? The power of 'executional greenwashing'. *International Journal of Advertising*, 34(1), 107-134.
- Peattie, K., & Charter, M. (2003). Green marketing. *The Marketing Book*, 5, 726-755.
- Peloza, J. (2005). Corporate Social Responsibility as Reputation Insurance. *UC Berkeley: Center for Responsible Business*. Retrieved from <https://escholarship.org/uc/item/7258w42x>
- Peter, J. P., & Ryan, M. J. (1976). An investigation of perceived risk at the brand level. *Journal of Marketing Research*, 13(2), 184-188.
- Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(879), 10-1037.
- Pollay, R. W., & Mittal, B. (1993). Here's the beef: factors, determinants, and segments in consumer criticism of advertising. *Journal of Marketing*, 57(3), 99-114.
- Polonsky, M. J. (1994). An introduction to green marketing. *Electronic Green Journal*, 1(2).
- Polonsky, M. J. (2011). Transformative green marketing: Impediments and opportunities. *Journal of Business Research*, 64(12), 1311-1319.
- Polonsky, M. J., & Rosenberger III, P. J. (2001). Reevaluating green marketing: a strategic approach. *Business Horizons*, 44(5), 21-30.
- Pomeroy, A., & Johnson, L. W. (2009). Constructing a corporate social responsibility reputation using corporate image advertising. *Australasian Marketing Journal (AMJ)*, 17(2), 106-114.
- Preston, L. E., & Post, J. E. (1975). Measuring corporate responsibility. *Journal of General Management*, 2(3), 45-52.
- Qu, Y., Liu, Y., Nayak, R. R., & Li, M. (2015). Sustainable development of eco-industrial parks in China: effects of managers' environmental awareness on the relationships between practice and performance. *Journal of Cleaner Production*, 87, 328-338.
- Rahman, I., Park, J., & Chi, C. G. Q. (2015). Consequences of "greenwashing": Consumers' reactions to hotels' green initiatives. *International Journal of Contemporary Hospitality Management*, 27(6), 1054-1081.
- Ramus, C. A., & Montiel, I. (2005). When are corporate environmental policies a form of greenwashing?. *Business & Society*, 44(4), 377-414.
- Rashid, N. R. N. A., Jusoff, K., & Kassim, K. M. (2009). Eco-labeling perspectives amongst Malaysian consumers. *Canadian Social Science*, 5(2), 1-10.
- Redclift, M. (1987). The production of nature and the reproduction of the species. 1999) *Karl Marx's Social and Political Thought*, 8, 144-151.
- Regan, H. M., Colyvan, M., & Burgman, M. A. (2000). A proposal for fuzzy International Union for the Conservation of Nature (IUCN) categories and criteria. *Biological Conservation*, 92(1), 101-108.

- Rheede, A., & Blomme, R. J. (2012). Sustainable practices in hospitality: A research framework. *Advances in Hospitality and Leisure*, 8, 257-271.
- Robertson, T. S. (1993). How to reduce market penetration cycle times. *MIT Sloan Management Review*, 35(1), 87.
- Rusinko, C. (2007). Green manufacturing: an evaluation of environmentally sustainable manufacturing practices and their impact on competitive outcomes. *IEEE Transactions on Engineering Management*, 54(3), 445-454.
- Sakib, M. N., Zolfagharian, M., & Yazdanparast, A. (2020). Does parasocial interaction with weight loss vloggers affect compliance? The role of vlogger characteristics, consumer readiness, and health consciousness. *Journal of Retailing and Consumer Services*, 52, 1-11.
- Schemer, C., Matthes, J., & Wirth, W. (2008). Toward improving the validity and reliability of media information processing measures in surveys. *Communication Methods and Measures*, 2(3), 193-225.
- 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.
- Schultz, F., & Wehmeier, S. (2010). Institutionalization of corporate social responsibility within corporate communications. *Corporate Communications: an International Journal*, 15(1), 9-29.
- Schmidt, J. E. (2007). From intentions to actions: The role of environmental awareness on college students. *Journal of Undergraduate Research*, 10(10), 1-4.
- Scott, W. R. (2013). *Institutions and organizations: Ideas, interests, and identities*. Sage publications.
- Self, R. M., Self, D. R., & Bell-Haynes, J. (2010). Marketing tourism in the Galapagos Islands: Ecotourism or greenwashing?. *International Business & Economics Research Journal*, 9(6), 111-125.
- Seuring, S., & Müller, M. (2008). From a literature review to a conceptual framework for sustainable supply chain management. *Journal of Cleaner Production*, 16(15), 1699-1710.
- Sharma, V., & Pai, V. (2015). Trends and opportunities in green marketing. *IOSR Journal of Business and Management*, 17(10), 70-75.
- Sheth, J. N., Sethia, N. K., & Srinivas, S. (2011). Mindful consumption: a customer-centric approach to sustainability. *Journal of the Academy of Marketing Science*, 39(1), 21-39.
- Sila, I., & Cek, K. (2017). The impact of environmental, social and governance dimensions of corporate social responsibility on economic performance: Australian evidence. *Procedia Computer Science*, 120, 797-804.
- Singh, J., & Sirdeshmukh, D. (2000). Agency and trust mechanisms in consumer satisfaction and loyalty judgements. *Journal of the Academy of Marketing Science*, 28(1), 150-167.
- Skarmeas, D., & Leonidou, C. N. (2013). When consumers doubt, watch out! The role of CSR skepticism. *Journal of Business Research*, 66(10), 1831-1838.

- Sloan, K., Klingenberg, B., & Rider, C. (2013). Towards sustainability: Examining the drivers and change process within SMEs. *Journal of Management and Sustainability*, 3(2), 19-30.
- Slaughter, P. (2008). Avoid the pitfalls of greenwash. *Home Furnishings Business*, 3(2), 32-36.
- Smith, V. L., & Font, X. (2014). Volunteer tourism, greenwashing and understanding responsible marketing using market signalling theory. *Journal of Sustainable Tourism*, 22(6), 942-963.
- Spangenberg, J. H. (2011). Sustainability science: a review, an analysis and some empirical lessons. *Environmental Conservation*, 38(3), 275-287.
- Stock, T., & Seliger, G. (2016). Opportunities of sustainable manufacturing in industry 4.0. *Procedia CIRP*, 40, 536-541.
- Straughan, R. D., & Roberts, J. A. (1999). Environmental segmentation alternatives: a look at green consumer behavior in the new millennium. *Journal of Consumer Marketing*, 16(6), 558-575.
- Svensson, G., & Wagner, B. (2012). Implementation of a sustainable business cycle: the case of a Swedish dairy producer. *Supply Chain Management: An International Journal*, 17(1), 93-97.
- Szabo, S., & Webster, J. (2020). Perceived Greenwashing: The Effects of Green Marketing on Environmental and Product Perceptions. *Journal of Business Ethics*, 165(1), 1-21.
- Takala, M. (1991). Environmental awareness and human activity. *International Journal of Psychology*, 26(5), 585-597.
- Tan, S. H., Habibullah, M. S., Tan, S. K., & Choon, S. W. (2017). The impact of the dimensions of environmental performance on firm performance in travel and tourism industry. *Journal of Environmental Management*, 203, 603-611.
- TerraChoice. (2009, April). *The Seven Sins of Greenwashing: Environmental Claims in Consumer Markets*. Retrieved from <http://sinsofgreenwashing.org/findings/>
- TerraChoice. (2010). *The Sins of Greenwashing: Home and Family Edition 2010*. Retrieved from <http://viewer.zmags.com/publication/dce78bfc#/dce78bfc/1>
- Thyberg, K. L., & Tonjes, D. J. (2016). Drivers of food waste and their implications for sustainable policy development. *Resources, Conservation and Recycling*, 106, 110-123.
- Torjusen, H., Sangstad, L., O'Doherty Jensen, K., & Kjærnes, U. (2004). European consumers' conceptions of organic food: A review of available research.
- Turnbull, P. W., Leek, S., & Ying, G. (2000). Customer confusion: The mobile phone market. *Journal of Marketing Management*, 16(1-3), 143-163.
- Turner, J. C., Oakes, P. J., Haslam, S. A., & McGarty, C. (1994). Self and collective: Cognition and social context. *Personality and Social Psychology Bulletin*, 20(5), 454-463.
- Unilever. (2019) Annual report and accounts 2019. Retrieved from https://www.unilever.com/Images/unilever-annual-report-and-accounts-2019_tcm244-547893_en.pdf

- United Nations Department of Economics and Social Affairs. (2017). *The sustainable development goals*. New York, NY: United Nations.
- Urban, G.L., (2003). The Trust Imperative. Retrieved from <https://dspace.mit.edu/bitstream/handle/1721.1/3510/4302-03.pdf?sequence=42>.
- Vernon, J., Essex, S., Pinder, D., & Curry, K. (2005). Collaborative policymaking: Local sustainable projects. *Annals of Tourism Research*, 32(2), 325-345.
- Verrecchia, R. E. (1983). Discretionary disclosure. *Journal of accounting and economics*, 5, 179-194.
- 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.
- Walker, M., Heere, B., Parent, M. M., & Drane, D. (2010). Social responsibility and the Olympic Games: The mediating role of consumer attributions. *Journal of Business Ethics*, 95(4), 659-680.
- Walsh, G., & Mitchell, V.-W. (2010). The effect of consumer confusion proneness on word of mouth, trust, and customer satisfaction. *European Journal of Marketing*, 40(6), 838–859.
- Warrington, T., Abgrab, N., & Caldwell, H. (2000). Building trust to develop competitive advantage in e-business relationships. *Competitiveness Review*, 10(2), 160–168.
- Webb, D. J., & Mohr, L. A. (1998). A typology of consumer responses to cause-related marketing: From skeptics to socially concerned. *Journal of Public Policy & Marketing*, 17(2), 226-238.
- Westphal, J. D., & Zajac, E. J. (2001). Explaining institutional decoupling: The case of stock repurchase programs. *Administrative Science Quarterly*, 46, 202-228.
- Williams, P. W., & Ponsford, I. F. (2009). Confronting tourism's environmental paradox: Transitioning for sustainable tourism. *Futures*, 41(6), 396-404.
- WCED. (1987). World commission on environment and development. *Our common future*, 17, 1-91.
- Zhao, H. H., Gao, Q., Wu, Y. P., Wang, Y., & Zhu, X. D. (2014). What affects green consumer behavior in China? A case study from Qingdao. *Journal of Cleaner Production*, 63, 143-151.
- Zsóka, Á., Szerényi, Z. M., Széchy, A., & Kocsis, T. (2013). Greening due to environmental education? Environmental knowledge, attitudes, consumer behavior and everyday pro-environmental activities of Hungarian high school and university students. *Journal of Cleaner Production*, 48, 126-138.

VITA

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Academic Preparation

The University of Mississippi, Oxford, Mississippi
Doctor of Philosophy, August 2022, Field of Study: Hospitality Management
Major: Hospitality Management
Minor: Interdisciplinary Graduate Minor in Applied Statistics (2020)

Texas Tech University, Lubbock, Texas
Master of Science, 2014, Field of Study: Retail Management
Major: Hospitality and Retail Management

Seoul National University, Seoul, South Korea
Bachelor of Science, 2007, Field of Study: Clothing and Textile
Major: Clothing and Textile

Professional Experiences

Assistant Professor in Beverage Management, Metropolitan State University of Denver, Denver, Colorado [School of Hospitality (August, 2022-Present)]

Departmental Resident Research Methodology & Statistics Consultant, University of Mississippi, University, Mississippi [Department of Nutrition and Hospitality Management, (January, 2021-August, 2022)]

Honors Student Statistics Consultant, University of Mississippi, University, Mississippi [Department of Nutrition and Hospitality Management, (August, 2020-December, 2020)]

Graduate Instructor, University of Mississippi, University, Mississippi [Department of Nutrition and Hospitality Management (August, 2019- August, 2022)]

Graduate Consultant in Applied Statistics, University of Mississippi, University, Mississippi [Research Analytics Lab, School of Applied Sciences (August, 2019- May, 2022)]

Graduate Assistant, University of Mississippi, University, Mississippi [Graduate School (January, 2018-July, 2019)] [Department of Nutrition and Hospitality Management (August, 2017-December, 2017)]

Category Manager, JCS International Cordova Farmer's Market [Korean-Japanese Category Manager (March, 2015-October, 2015)]

Teaching Assistant, Texas Tech University, Lubbock, Texas [Managerial Accounting Teaching Assistant (August, 2013-December, 2014)]

Product Manager, LG Fashion, Seoul, South Korea [Leather Items and Accessories Manager, DAKS Department (August, 2007-December, 2012)] [Junior Analyst & Consultant, Enterprise Resource Planning Program Development Task Force Team (January, 2008-December, 2009)]

Student Assistant, Seoul National University, Seoul, South Korea [Program of Clothing and Textile Student Office (September, 2003-August, 2007)]

Scholarly Activities

a. Journal Publications

Published Refereed Journal Articles

Jo, J., Choi, H., Taylor, J., Ruetzler, T., Reynolds, D., & Davis, C. (Accepted) Craft Beer Consumption: The Roles of Motivation and Personal Involvement, *International Journal of Hospitality Beverage Management*. Paper No XX. Available at: TBD.

Jo, J. & Joung, H. (Accepted) Do part-time employees matter in the restaurant industry?. *Journal of Hospitality and Tourism Research*. Paper No XX. Available at: TBD.

Franks, RC., **Jo, J.**, Valliant, MW., Andre, TA., Knight, K., Bomba, A., & Bass, MA. (Accepted) Impact of Caloric Intake & Hydration on Injury & Illness in Female Collegiate Soccer Players. *Annals of Sports Medicine & Research*. Paper No XX. Available at: TBD.

Jo, J., Choi, E. & Taylor, J. (2019) Challenges and benefits of implementing green practices at a restaurant. *Journal of Hospitality and Tourism Cases*. 8(3)

Mann, G., Parrish, L., **Jo, J.**, & Valliant, M. (2018) Adolescent weight perception and snack food portion estimation, *Research Journal of Food and Nutrition*. 2(2), 14-22

Non-Refereed Journal Publications

Jo, J. (2006). Consumer behaviors in the e-commerce fashion market of South Korea. Bachelor's Thesis, Seoul National University, South Korea

Manuscripts Undergoing Peer Review

Ruetzler, T., **Jo, J.**, Taylor, J., & Choi, H. (Under Review) Belizean residents' perceptions of tourism development.

Lambert, L., Mann, G., **Jo, J.**, Gupta, K., & Greer, S. (Under Review) Importance of healthy eating principles and their influence on dining patterns at university food venue: Faculty's and staff's perspectives.

Jo, J. & Joung, H. (Under Review) Impact of sustainability attributes of menu labeling on restaurant green image.

Davison, H.K., Gigliotti, R., Bing, M., **Jo, J.**, & Taylor, J. (Under Review) Ambition, Narcissism, and Gender as Predictors of Career Success in the Hospitality Industry.

Manuscripts in Progress

Jo, J., Taylor, J. (in progress) Menu Analysis: Data-envelopment analysis and activity-based costing.

Jo, J., Taylor, J. (in progress) Review of literature: Sustainability research in hospitality.

Gupta, K., Lambert, L., **Jo, J.,** Greer, S., & Mann, G. (in progress) Effect of produce purchasing criteria on produce purchasing frequency and use of farmers' market among university faculty and staff.

Taylor, J., **Jo, J.,** & Wang, W. (in progress) Restaurant or delivery service? Customer decision-making and service quality evaluation.

b. Refereed Poster Presentations

Jo, J. & Taylor (Jul, 2019) Restaurant sustainability: A review of literature. Poster presentation at International Council on Hotel, Restaurant, and Institutional Education, New Orleans, LA.

Jo, J., Joung, H., & Choi, E. (Jul, 2019) Vegetarian customer perceptions of restaurant service attributes: An application of revised importance-performance analysis. Poster presentation at International Council on Hotel, Restaurant, and Institutional Education, New Orleans, LA.

Kim, D., Ahn, J., & **Jo, J.** (Jul, 2019) Airbnb Backyard: An investigation of selection criteria for a new type of shared economy accommodation. Poster presentation at International Council on Hotel, Restaurant, and Institutional Education, New Orleans, LA.

Jo, J. & Joung, H. (Jan, 2019) Impact of sustainability attributes of menu labels on restaurant green image and customer attitudes. Poster presentation at 24th Annual Graduate Education and Graduate Student Research Conference in Hospitality and Tourism, Houston, TX.

Jo, J., Choi, E., & Taylor, J. (Jan, 2019) Customer acceptance of online food delivery services using an extended technology acceptance model: The moderating effect of prior experience. Poster presentation at 24th Annual Graduate Education and Graduate Student Research Conference in Hospitality and Tourism, Houston, TX.

Jo, J. & Taylor, J. (Jul, 2018). Sentimental analysis in medical tourism. Poster presentation at International Council on Hotel, Restaurant, and Institutional Education, Palm Springs, CA.

Jo, J. & Taylor, J. (Jan, 2018). Menu analysis: A revisit and reflection of current methodologies. Poster presentation at 23rd Annual Graduate Education and Graduate Student Research Conference in Hospitality and Tourism, Fort Worth, TX.

c. Grants and Other Funding

Selected External Grants Not Funded

Choi, E., **Jo, J.**, & Taylor, J. Predicting customer acceptance of online food delivery services: An extended technology acceptance model, Food Service Management Education Council Grant. \$2,000. (Submitted September 15, 2018)

Internally Funded Grants (The University of Mississippi)

Taylor, J., **Jo, J.** Menu analysis: A revisit and reflection of current methodologies. School of Applied Sciences Software Grant. \$699. (Funded. June, 2018)

Services

a. University Service

Departmental Committees

Department Chair Search Committee (August, 2019-December, 2019)

Reviewer for Journals

International Journal of Contemporary Hospitality Management (May, 2020-Present)

Journal of Hospitality and Tourism Technology (January, 2020-Present)

Reviewer for Conferences

NENA Federation of ICHRIE Conference 2020

b. Military Service

Republic of Korea Army, Ammunition Vehicle Operator

- Squad Commander; Rank: Sergeant (2001-2003)

Teaching

a. Courses Taught

University of Mississippi, Fall 2019-Present

NHM 525 Section 001, Research I – Principles of Research (Online, 26 students, sole instructor, Spring 2022)

NHM 464 Section 001, Marketing in the Hospitality Industry (Face-to-face, 35 students, sole instructor, Spring 2022)

NHM 363 Section 001, Foodservice Procurement (Face-to-face, 14 students, sole instructor, Fall 2021)

NHM 467 Section 001, Hospitality Industry Financial Management (Online, 39 students, sole instructor, Spring 2020)

EDRS 701 Section 001, Educational Statistics II (Face-to-face, 12 students, guest lecturer, January 30, 2020)

EDRS 605 Section 002, Introduction to Educational Research (Face-to-face, 24 students, guest lecturer, October 12, 2019)

NHM 310 Section 001, Hospitality Industry Accounting (Face-to-face, 34 students, sole instructor, Fall 2019)

Texas Tech University, Fall 2013-Fall 2014

RHIM 3321, Introduction to Hospitality Accounting (Face-to-face, teaching assistant)

RHIM 3322, Hospitality Industry Accounting and Financial Management (Face-to-face, teaching assistant)

Professional Development

Fun with Nonlinear Effects in Linear Models by Dr. Jason Osborne, University of Mississippi. March 4, 2021

Get Smart! An Overview of SmartPLS by Dr. Joseph Hair, University of Mississippi. February 7, 2020.

The Great Facilitator: A Multivariate Career by Dr. Joseph Hair, University of Mississippi. February 6, 2020.

Graduate Writing Workshop. Graduate Writing Center, University of Mississippi. February 27, 2019.

Introduction to Mediation, Moderation, and Conditional Process Analysis by Dr. Andrew Hayes. University of Mississippi. October 26-27, 2018.

eLearning Workshop, eLearning Teaching Course. Division of Outreach, University of Mississippi. June 12, 2018-July 23, 2018.

Introduction to R, Learn to use the free and open source programming language R for statistical computing. Mississippi Center for Supercomputing Research, University of Mississippi. February 15, 2018.

Honors and Awards

Graduate Achievement Award, School of Applied Sciences, University of Mississippi. March 2022

Dissertation Fellowship, the Graduate School, University of Mississippi, Spring 2021.

Final List, STR Student Market Study Competition at the 2019 Hotel Experience, New York, NY. November 2019.

Outstanding Graduate Student Award, Honors and Awards Convocation, The Office of Provost, The University of Mississippi. April 2019

Students of the Month Award, School of Applied Sciences. The University of Mississippi. December 2017.