

Exploring the Effectiveness of Green Marketing Strategies in Hospitality

by

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B.S., Chung-Ang University, 2011  
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AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF PHILOSOPHY

Department of Hospitality Management  
College of Human Ecology

KANSAS STATE UNIVERSITY  
Manhattan, Kansas

2018

## **Abstract**

This experimental study explores how different marketing tactics, such as advertising types, message appeals, and social norms, influence attitude toward the advertisement, attitude toward the convention, and pro-environmental intention. This research has three objectives: to determine how message types in green advertising affect attitudes and intentions, to examine how message appeals in green advertising affect attitudes and intentions, and to investigate the role of social norms in green advertising in the formation of those attitudes and intentions.

To examine the effects of message type, message appeals, and social norms on convention attendees' behavioral intentions toward such a convention, a 2 (message type) x 2 (message appeals) x 2 (social norms) experimental design was adopted. This was chosen given its recognized ability to clarify associative relationships by enhancing internal validity and the robustness of findings. Several hypotheses were tested with a sample of convention attendees from the United States using Amazon Mechanical Turk.

Specific findings from this study include that fact that green marketing messages combining verbal claims and visual claims were significantly more effective than messages using verbal claims only. Additionally, messages with emotional appeals were significantly more effective than ones with rational appeals and messages with injunctive norm claims were significantly more effective than ones with descriptive norm claims.

As the first study of its kind to empirically investigate the use of green advertising in the context of conventions, this research involved several novel applications of various theories and a conceptual model. This study utilizes research from several disciplines whose examples can inform green marketing strategies in the convention industry. At the end, the researcher discusses the possible implications of its own findings for the convention industry in addition to its segment in the broader hospitality industry in the United States.

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## **Abstract**

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## Chapter 1 - Introduction

During the past few decades amid increased threats of climate change and, in turn, mounting concerns for environmental degradation, the misuse of natural resources has nevertheless increased globally (Han & Hwang, 2017). In response, companies have increasingly incorporated so-called “green practices” into their business and advertising efforts. Among those practices, *green marketing* or advertising that promotes environmental sustainability for consumers, regulators, and other stakeholders, has expanded rapidly across multiple industries. This is especially true in the United States, where consumers have begun to pay close attention to the environmental impacts of their actions (Leonidou, Leonidou, Palihawadana, & Hultman, 2011). According to one report, 88% of Americans believe that it is crucial to care for the planet, and 52% believe that the government should be responsible for protecting the environment (International Trade Centre, 2017).

Such sentiments have continued to encourage businesses to use green marketing. Advertising has long ranked among the most effective methods of communicating green messages to consumers, and as a result, green marketing has grown exponentially during the past 20 years (Atkinson & Kim, 2015). According to a report from TerraChoice (2009), green advertising characterized more than 10% of all advertisements in the United States in 2009, which had tripled between 2006 and 2008.

Green advertising plays an essential role in promoting the environmental image of companies and organizations, as well as the eco-friendly characteristics of their products and services (Leonidou et al., 2011). A business’s capacity to leverage diverse, pro-environmental strategies could encourage consumers to purchase products and services designed to be less harmful to the environment. Because the purchase and use of environmentally friendly products

have continued to appeal to consumers, green advertising has continued to gain popularity among businesses, particularly their marketers (Matthes, Wonneberger, & Schmuck, 2014).

In line with these trends, the hospitality industry has increasingly “gone green” (Kim, Lee, & Fairhurst, 2017). This is counter to its former reputation of less-than-environmentally friendly methods in delivering its products and services (Kim, Lee, & Fairhurst, 2017). The hospitality industry has been known to adopt various resource-intensive processes and liberally use energy in providing transportation, maintenance, print, and accommodations services. This is often at the expense of local communities and environments (Han & Hwang, 2017). As the popularity of environmentally friendly initiatives has grown, consumers have increasingly prioritized environmental factors in their purchase decision making and the hospitality industry has had to follow suit.

The market for sustainable products continues to grow in parallel to the rise of environmental problems worldwide (Wang, Kirillova, & Lehto, 2017). Green practices have become increasingly common in the tourism industry (Han, 2014; Han & Hwang, 2017), the lodging industry (Cha, Kim, & Cichy, 2018), the restaurant industry (Line, Hanks, & Zhang, 2016), and most recently in the convention industry (Wu, Cheng, & Ai, 2017). Among these green practices, green marketing is often used to help bridge the gap between pro-environmental attitudes among consumers and their pro-environmental intentions and behaviors. However, green marketing’s effectiveness to that end varies depending on the use of certain marketing tactics.

This study is focusing on the meeting and events industry. The meeting and events industry is the second most wasteful industry in the United States, only behind construction (Park & Kim, 2014). Among the meeting and events industry, the process of planning and

producing a convention is a resource-intensive process (Wu, Cheng, & Hong, 2017). The convention industry creates many potential environmental issues, including air pollution, increasing food miles, and energy use.

## **Statement of the Problem**

Although scholars have investigated how the availability of green products and services affects consumer behavior, research examining ways to promote them efficiently remains limited (Dahl, 2010; Kim, Kim, & Kim, 2016). To date, research on this topic has mainly been in the marketing field and has examined the types of marketing elements use. This includes logos, product shapes, fonts and typographical elements, and background images that make the visual aspects of advertising more appealing (Phillips, Miller, & McQuarrie, 2014). The virtual experience suggested by environmentally appealing imagery in established advertising campaigns has been found to be an essential catalyst for linking messages to products (Hartmann & Vanessa Apaolaza-Ibáñez, 2010). Specific to the hospitality industry, green marketing has been used to demonstrate the industry's sensitivity to the environment in advertising featuring verbal and visuals elements (Kim et al., 2016; Ottman, 1998; Xue & Muralidharan, 2015).

Research within the marketing field concerning the appeal of green advertising has revealed that rational and emotional messages create distinct consumer reactions depending upon the product or service, market, and advertising context, in addition to differences among individual consumers (Hartmann, Wiertz, & Arnould, 2015). More recent studies have clarified how green advertising affects social norms, particularly those that encourage pro-environmental behavior and environmentally friendly decision making (Han, Hwang, & Lee, 2017; Zanon & Teichmann, 2016). Before this, studies proposed that social norms are necessary conditions for

environmentally friendly decision making (Matthies, Selge, & Klöckner, 2012; Schultz, Khazian, & Zaleski, 2008).

## **Justification**

In recent decades, marketing researchers have increasingly focused on studying sustainable and prosocial environmentally friendly behaviors (Mick, 2006), often in response to the challenge of encouraging consumers to behave in sustainable ways (Luchs, Naylor, Irwin, & Raghunathan, 2010). In the hospitality industry, businesses that have incorporated sustainable practices have often struggled to effectively communicate their commitment to such practices among consumers with similar commitment (Font, Elgammal, & Lamond, 2017; Villarino & Font, 2015). Although the hospitality industry has tried to focus on applying green advertising, to-date no research has addressed green messages in the meetings and events industry. While scholars across various industries have focused on the relationships among various styles of green advertising, their appeals, and social norms, the question of how those links might influence consumers' responses remains limited.

## **Purpose and Objectives**

The purpose of this research is to explore the use of green messaging in the convention industry. More specifically, this research had three objectives:

1. To investigate the role of message types on convention attendees' perceptions
2. To explore the role of message appeals on convention attendees' perceptions ; and
3. To examine the role of social norms on convention attendees' perceptions.

## Hypotheses

**H1.** Attendees rate their perceptions of green messages differently when viewing green convention messages that combine message types (i.e., verbal claims including visuals) compared to when viewing green convention messages that use only verbal claims.

**H1a.** A green message that combines message types will influence a higher favorable impact on attitude toward the advertisement.

**H1b.** A green message that combines message types will influence a higher favorable impact on attitude toward the convention overall.

**H1c.** A green message that combines message types will influence a higher favorable impact on an individual's pro-environmental intention related to environmental protection.

**H2.** Attendees have different perceptions of a green message when processing rational appeal versus emotional appeal messages.

**H2a.** An emotional appeal message generates a higher level of attitude toward the advertisement.

**H2b.** An emotional appeal message generates a higher level of attitude toward the convention overall.

**H2c.** An emotional appeal message generates a higher level of an individual's pro-environmental intention related to environmental protection.

**H3.** Attendees have different perceptions of a green message when processing injunctive norm claims versus descriptive norm claims.

**H3a.** An injunctive norm claim generates a higher level of attitude toward the advertisement.

**H3b.** An injunctive norm claim generates a higher level of attitude toward the convention overall.

**H3c.** An injunctive norm claim generates a higher level of an individual's pro-environmental intention related to environmental protection.

### **Significance of the Study**

To the researcher's knowledge, this study was the first to empirically investigate the use of green advertising in the context of conventions. This could have major implications for the events industry as the second-most wasteful industry in the United States. As such, this study includes a detailed discussion of implications for hospitality research and practices in the convention industry. From a theoretical perspective, the study describes several novel applications of various theories within this industry and a conceptual model. From a practical perspective, this study describes case studies from other industries whose examples can inform green marketing strategies in the convention industry. Lastly, this research identifies avenues for future research on the relationship of green advertising and the industry.

### **Limitations and Future Research**

There are several limitations to this study. First, the questionnaire measured participants self-expressed behavioral and purchase intention, but not their actual behaviors or purchases. Actual behavior can differ from self-reported intentions. Because of the comparative nature of the research, however, the difference in intentions and actual behaviors does not significantly



threaten the conclusion that some of the advertisements presented in the survey were more effective than others. Next, participants were given specific advertisements to view during this study. In real life, however, consumers would see advertisements only if they attract the individual's attention. The real success of an advertisement thus depends upon whether it attracts the attention of consumers.

As the results suggested, in the future researchers should consider the impact of demographic and psychographic factors on the effectiveness of green marketing messages. Furthermore, because environmental issues span national boundaries, it is essential also to account for culture. Although researchers have taken preliminary steps to that end, cross-cultural testing of relationships among structure remains in its infancy in marketing research. Additionally, in the future researchers should consider using various control variables, including pre-existing attitudes, knowledge of the environment, and experience.

### **Definitions of Terms**

- *Corporate sustainability*: The corporate-level ability of business activities to conserve the environment while improving living standards for people both within and outside a given company (van Marrewijk, 2003).
- *Descriptive social*: Norms based on perceptions of how other people behave that can inform people about effective and adaptative behaviors in certain situations (Steg & Vlek, 2009).
- *Emotional appeal*: An argument in advertising that seeks to provoke an emotional response to a product, service, or brand (Fredrickson, 2001).
- *Environmental involvement*: The level of concern among people regarding the

condition of the environment and how that concern is reflected in certain behaviors to protect the environment (Schuhwerk & Lefkoff-Hagius, 1995).

- *Green advertising*: A set of marketing strategies used to promote information regarding a company's pro-environmental efforts and commitment (Xue & Muralidharan, 2015).
- *Green marketing*: Holistic marketing processes that identify, predict, and meet the needs of consumers and communities both profitably and sustainably (Peattie, 1999).
- *Green advertising*: It is a specific marketing activity that companies use to publicize the environmental aspects of their business operations and processes in order to demonstrate their commitment to pro-environmental efforts (Kilbourne, 1995).
- *Injunctive social norms*: Norms based on perceptions of the acceptance or rejection of behaviors by other people according to social rewards and punishments associated with engaging or not engaging those behaviors (Cialdini, Kallgren, & Reno, 1991).
- *Message appeal*: An argument in advertising used to stimulate consumers to buy what they want or need (Johanna & Karin, 2016).
- *Rational appeal*: An argument in advertising that seeks to provoke a logical response to a product, service, or brand (Fredrickson, 2001).
- *Social norms*: Social guidelines or refined social behaviors beyond the power of law (Cialdini, Kallgren, & Reno, 1991).
- *Sustainability*: Seeks to improve human welfare by preserving sources of raw materials used to meet human needs and by ensuring that sites of human waste are not expanded to a degree at which they would threaten humans' welfare (Goodland, 1995)
- *Sustainable development*: Economical and social growth able to meet the needs of the

present generation while maintaining resources to meet the needs of future generations as well (World Commission on Environment and Development, 1987).

- *Triple bottom line*: Focuses on a company's long-term environmental, social, and economic performance (Elkington, 1998).

## Chapter 2 - Review of Literature

### Global Sustainability

The complexity of the global economy is mirrored by today's unprecedented population growth and the resulting burden on energy, food, and natural resources (Manganari, Dimara, & Theotokis, 2016). Increased consumption significantly affects environmental stability; and now most consumers are aware of their collective impact on the planet (Han & Yoon, 2015). According to Goodland (1995, p.3), "*Sustainability* seeks to improve human welfare by preserving the sources of raw materials used for human needs and ensuring that the sinks for human waste are not exceeded in order to prevent harm to humans." In response to consumer awareness, initiatives promoting sustainability and environmental protection have received considerable attention and have shaped corporate, consumer, and personal behaviors (Jones, Hillier, & Comfort, 2016). Organizations and consumers alike have sought to address the greatest sustainability-related challenge facing today's firms: striking a balance between maintaining the well-being of the ecosystem and fulfilling the needs of consumers and economic growth (Lozano, 2015).

Throughout the 21<sup>st</sup> century, a global paradigm shift in economic development has increasingly underscored the concept of sustainability as interest in reducing the use of resources has increased (Stone & Stone, 2011). Sustainability was introduced in the late 20<sup>th</sup> century and has since paved the way for the emergence of the idea of sustainable development, a concept officially recognized in the World Conservation Strategy (International Union for the Conservation of Nature and Natural Resources, 1980). In general, sustainability takes a holistic view of the environment, social, and cultural well-being of local economies when evaluating the

success of development, including development in the hospitality and tourism industries (Aronsson, 2000).

Global debate on sustainability experienced a watershed moment with the 1987 Brundtland Report, officially titled *Our Common Future*, which sought to establish a new era of sustainable development that considers environmental issues (United Nations Commission on Sustainable Development, 2007). The United Nations and the World Commission on Environment and Development (1987), known as the Brundtland Commission, defined *sustainable development* as social and economic growth able to meet current needs without becoming unable to meet future needs as well. The report paid special attention to the responsible harvesting of forests and marine resources and encouraged development that would not deplete natural resources.

A series of summits and meetings organized by the United Nations followed the report's publication with the aim of promoting the sustainability of all major industries worldwide (Milne & Gray, 2013). Many of those meetings focused on the tourism industry as a prime sector for more sustainable globalized development (Barkemeyer, Holt, Preuss, & Tsang, 2014). At the 1992 United Nations Conference on Environment and Development in Rio de Janeiro, the United Nations Commission on Sustainable Development was established to continue the work of the Brundtland Commission. The Rio Summit supported the Agenda 21 Global Action Plan, which provided a framework for achieving sustainable development (Mowforth & Munt, 2009).

The conceptualization of sustainability and its implementation in various industries have transformed previously established norms and rules for companies worldwide (Engardio, Capell, Carey, & Hall, 2007). A more detailed concept of sustainability focuses on four areas: education, processes (as opposed to products), community involvement, and future conditions. Concepts

related to these four areas have appeared in nearly every subsequent conceptualization of sustainable practices and have guided such practices widely recognized to be effective.

The sustainability-focused approach that continues to help corporations work toward meeting the three pillars of economic, social, and environmental sustainability is collectively known as the *triple bottom line* (Hardcastle & Waterman-Hoey, 2010; Labuschagne, Brent, & van Erck, 2005; Pérez & del Bosque, 2014). The triple bottom line approach shifts the focus of corporations from short-term profit to these three pillars for long-term performance (Elkington, 1998). In practice, the triple bottom line provides a framework for measuring and reporting the performance of companies in terms of these three areas (Elkington, 2004).

In the hospitality and tourism industry, sustainable development represents a strategic direction that can minimize the negative impacts of hotels and tourism on natural, cultural, and social environments (Eligh, Welford, & Ytterhus, 2002). As interest in sustainability has grown, so has the interest in addressing major challenges facing society. The environment and the economy grow in various spatial and temporal dimensions that nevertheless have to confront continued population growth, urbanization, natural resource consumption, decreased food supplies, the mounting effects of climate change, and increased levels of pollution (Pedersen, Gwozdz, & Hvass, 2016). Carroll and Buchholtz (2012) have thus ranked sustainability among the most urgent challenges in this decade's business world.

Academic and industry professionals have often reframed the concept of sustainability to make sense at the corporate level. In particular, they have emphasized that internal, as well as, external stakeholders should be responsible for ensuring sustainability in cultural, political, and social environments (Dyllick & Hockerts, 2002). In that sense, *corporate sustainability* refers to

the corporate-level ability of business activities to conserve the environment while improving living standards for people both within and outside a given company (van Marrewijk, 2003).

With this goal in mind, plans to achieve corporate sustainability have emerged widely in business agendas and become important guidelines as companies increasingly seek to incorporate sustainability as a source of long-term competitive advantage (Jones, Hillier, & Comfort, 2016). Many companies have emphasized sustainability-oriented efforts to differentiate themselves from competitors and to reinforce their brand and corporate reputations (Jones et al., 2016). Consequently, the idea of the sustainable firm reflects the increasing trend among stakeholders to assess an organization's performance regarding not only economic prosperity, but also its contribution to environmental quality and social justice (Elkington, 2004). Targeting community relations and educational support, the social dimension of corporate sustainability has encouraged companies to consider addressing social issues (Franca, Broman, Robert, Basile, & Trygg, 2017). At a given company, however, the success of such plans depends both on the company's internal culture and on the acceptability of the company's economic and environmental behaviors (Oliver, 1997). Although research on environmental issues in organizational management has varied, it has primarily focused on social responsibility (Hoffman & Georg, 2013).

### **Sustainability in the Hospitality Industry**

Sustainability is a significant issue in the hospitality industry. As the human population expands and resources become thinner, consumers provide a challenging business environment that demands sustainability in various aspects of the industry (Jones, Hillier, & Comfort, 2016). In a sense, clarifying the understanding of climate change, air and water pollution, ozone

depletion, deforestation, the loss of biodiversity and global poverty is essential for all players in the hospitality industry, which is known for its enormous environmental impacts, especially in terms of water and energy use and the production of hazardous waste (Sloan, Legrand, & Chen, 2016; Stottler, 2016). For example, according to one hospitality report (Madison Gas Electric, 2012), US hotels and motels use an average of 14 kilowatt-hours (kWh) of electricity and 49 cubic feet of natural gas per year. Due to its resource-intensive nature, the hospitality industry has therefore paid considerable attention to sustainability (Cha, Kim, & Cichy, 2018).

In the context of the hospitality industry, Sloan, Legrand, and Simons-Kaufmann (2014) have suggested that sustainability refers to the ability to develop and manage businesses that meet the needs of today's generation without compromising the ability to meet the needs of future generations. The hospitality industry has implemented a variety of innovative means to engage in green practices and sustainability has been widely accepted as a competitive advantage among firms (Cha et al., 2018; Sirakaya-Turk, Baloglu, & Mercado, 2014). However, research within the resource-intensive subindustries of hotels, restaurants, and events have varied significantly.

### **Sustainability in the Hotel Industry**

During the past decade, the hotel industry has increasingly adopted measures to achieve sustainability (Han & Hyun, 2018). An environmentally responsible hotel refers to a hotel that adopts and enacts ecologically sound programs and practices for water and energy conservation, solid waste reduction, and lower costs (Han, Hwang, Kim, & Jung, 2015). Amid the industry's shift in focus, research on sustainability in hotels has also expanded and often examines water conservation, the sustainable use of materials, energy efficiency, recycling, and sustainable



purchasing procedures (Cha et al., 2018; DiPietro, Cao, & Partlow, 2013). In one such study, Berezan, Raab, Yoo, and Love (2013) investigated the relationship of sustainable hotel practices, customer satisfaction, and consumer behavioral intentions using samples of tourists in Mexico. They found that green hotel practices have positively affected customer satisfaction, whereas return intentions could be negatively affected by hotels' recycling policies. To explain, they suggested that some hotel customers might believe that collecting and eliminating garbage is not their responsibility.

In another hotel study, Chan, Hon, Chan, and Okumus (2014) examined the relationship of green triggers (i.e., environmental knowledge, environmental awareness and environmental concern) and employees' behaviors and intentions related to implementing green practices. They detected positive relationships between green triggers and employees' behavior, and that ecologically conscious behaviors mediated the relationship between the triggers and employees' intentions to demonstrate those behaviors. Altogether, their findings indicate that environmental factors can prompt the positive intentions of employees to implement green practices. In a different sample, Prud'homme and Raymond (2013) investigated the impact of adopting sustainable development practices on customer satisfaction with qualitative data from five Canadian hotels. According to their results, customer satisfaction positively affected sustainable development practices, especially in terms of hotel size and management. They suggested that hotel managers should comply with the principles of equality, solidarity, prevention, and ethics in the long-term. Examining Spanish hotels, Rodríguez-Antón, Alonso-Almeida, Celemín, and Rubio (2012) investigated the characteristics of sustainability management systems. They observed that hotels targeting leisure tourists were chiefly interested in environmental

management whereas ones that target business customers prioritized human resource management and labor relations.

On a larger scale, de Grosbois (2012) reviewed the methods and scope of the social responsibility reporting practices adopted by 150 hotel companies worldwide. They found that many of these hotels reported their commitment to a wide range of aspects of sustainability, including environmentally oriented objectives, environmental quality, diversity, accessibility, community welfare, and economic prosperity. Examining even more hotels, Zhang, Joglekar, and Verma (2012) constructed a performance measurement system for environmental sustainability using panel data from more than 600 hotels in the United States. Their results revealed that customers' behavior and operational decisions were key drivers of environmental sustainability and that environmental sustainability and operational performance with particular market segments are positively related.

### **Sustainability in the Restaurant Industry**

In 2016, the U.S. restaurant industry generated more than \$783 billion in revenue (National Restaurant Association, 2016). Restaurants use substantial energy resources, water resources, cleaning supplies, and disposables products (Wang, Chen, Lee, & Tsai, 2013), therefore, the increase in consumer interest in sustainability has pressured restaurants to participate in sustainable practices (Feniger, 2015). The negative environmental footprint of the restaurant industry has not only amplified public interest in adopting sustainable practices, but has also helped to accelerate research and policies on such practices (Millar & Baloglu, 2011).

Although the U.S. restaurant industry currently thrives, foodservice operations face challenges and competitive pressures due to labor-intensive cost structures, commodity price

fluctuations, and high utility costs (National Restaurant Association, 2016). As the restaurant industry has grown, its excessive energy and water consumption and massive creation of non-recyclable waste have been problematic for the environment and the industry's reputation (Hu, Horng, Teng, & Chou, 2013). In response, the National Restaurant Association (2016) ranked environmental sustainability among the most popular trends in the restaurant industry in 2015. That same year, the Green Restaurant Association (2015) enumerated seven indicators of environmental sustainability as guidelines for restaurants: energy, water, waste, disposables, chemical use, pollution abatement, and sustainable food.

Chou, Chen, and Wang (2012) have investigated the attitudinal and behavioral decision-making factors for adopting green practices based on the theory of planned behavior (TPB) and the innovation adoption theory. They found that attitude and perceived behavioral control positively affected behavioral intent, whereas social influence did not. More recently, Namkung and Jang (2017) tested restaurant customers' intentions to pay more for green practices and detected positive relationships between four variables – age, previous experience, involvement, and self-perception - when it came to their willingness to pay for green practices. They also observed that customers were more likely to pay for green practices if they were aware of green brand images.

At a management level, Raab, Baloglu, and Chen's (2018) investigation of restaurant managers' behavior when faced with environmental pressures showed that managers were most affected by the external expectations of suppliers, customers, employees, and society as a whole. Choi and Parsa (2006) suggested three general areas of sustainable practices to include incorporating organic or locally grown food, environmentally friendly practices, or donating money and/or time to the community. Specifically, they found that the restaurant industry

provides sustainable food, promotes energy efficiency and conservation, promotes water efficiency and conservation, reduces waste, reuses and recycles, and supports community environmental efforts. Jang, Zheng, and Bosselman (2017) found that managers' values and their leadership role in improving environmental sustainability positively impact a company's financial and non-financial performance.

### **Sustainability in the Events Industry**

The meeting and events industry, which encompasses conventions and special events also places massive demands upon host communities in terms of water, energy, and natural resources (Han & Hwang, 2017). Sustainable practices in the convention industry have therefore received increasing attention in academic research during the past five years, although none of that research has specifically addressed green marketing.

In the context of special event venues, Han has studied museum settings across the United States. In one study, Han and Hyun (2017) investigated the relationship between convention attendees' decision-making and pro-environmental intentions and found that cognitive, affective, normative, and moral drivers significantly determined visitors' sustainability-oriented behaviors. In another study, Han and Hyun (2018) examined the relationship between museum attendees' decision-making and pro-environmental intentions. Their results indicated that cognitive triggers, effective triggers, willingness to make personal sacrifices and connectedness to nature positively affected visitors' pro-environmental intentions. Han and Hyun (2017) predicted visitors' pro-environmental intentions for environmentally responsible behaviors and found that cognitive triggers (i.e., environmental value, environmental concern, environmental awareness, environmental knowledge, and self-efficacy) and effective

triggers (i.e., anticipated positive and negative effects) positively influenced both the attendee's willingness to make sacrifices for the environment and their pro-environmental intentions.

Although having received gradually more attention in the past few years, the research concerning convention sustainability remains underexamined in scholarly research, hence the present study's endeavor to probe the topic more deeply.

## **Green Marketing and Advertising**

As global sustainability and the interest in climate change increases, companies face the challenge of integrating environmental issues into their business strategies (Nidumolu, Prahalad, & Rangaswami, 2009). Once this is achieved, companies must make sure to convey this to the consumer. Consequently, environmental and green marketing strategies now rank among the most discussed topics in academic research on advertising (Hartmann et al., 2015). The concept of green marketing has evolved significantly and has even sparked an important social movement. Peattie (1999) first defined *green marketing* as a holistic management process that identifies, predicts, and meets goals profitably while continuously addressing the needs of customers and society. As that definition suggests, green marketing more broadly encompasses all marketing strategies to identify solutions to environmental problems.

Companies worldwide have considered environmental issues as part of their business strategies while taking into account government regulations and other forces (Do Paco, Raposo, and Leal Filho, 2009; Schot & Fishcher, 1993). In part, such consideration has been a response to the heightened sense of responsibility among consumers and their increasing tendency to make environmentally friendly purchases (Haanpää, 2007). According to Ghosh (2011), effective marketing for green products can therefore appeal to consumers, often by simply applying good

marketing principles. Green marketing messages generally address at least one environmental issue of interest to consumers as well as the needs of the environment (Gheorghiu, Vidrascu, & Niculescu 2013).

*Green advertising* is a specific marketing activity that companies use to publicize the environmental aspects of their business operations and processes in order to demonstrate their commitment to pro-environmental efforts (Kilbourne, 1995). Green advertising tends to include promotional messages that appeal to the needs and desires of consumers (Zinkhan & Carlson, 1995). This advertising often emphasizes co-marketing efforts across various functions, including the delivery of messages about product characteristics and their environmental impacts. This can reduce uncertainty about promotions and product development and thereby better inform consumers' purchase decisions (Dangelico & Vocalelli, 2017).

As media interest in sustainability increases, consumers today have become more aware of environmental issues. However, their increased awareness has not necessarily improved their responses to green advertising (Xue & Muralidharan, 2015). Consumers in many countries remain skeptical about the credibility of claims raised in green advertising, largely due to the acknowledged abundance of misleading information, known as "greenwashing" (Leonidou et al., 2011; Pfanner, 2008). Although the public remains somewhat hesitant to accept information about the supposed environmental concerns and actions of companies, green advertising can nevertheless be effective when properly prepared and presented (Davis, 1993). For example, companies such as Toyota, General Motors, and Exxon-Mobil have used green advertising to promote an overall corporate image that focuses on sustainability.

## Message Types

Of the many facets of green marketing and green advertising, two components, verbal and visual messages, are often analyzed in research related to print advertising. This is unsurprising since verbal and visual information dominates communication and affects consumers' attitudes and behavioral intentions (Kim, Kim, & Kim, 2016). Verbal messages have been identified as an important component that can pique consumers' interest, support persuasive communication, and increase the effectiveness of ads. However, visual elements are more effective for initially attracting consumers (Cerf, Frady, & Koch, 2009; Moriarty, 1985).

According to the dual code theory (Pavio, 1971), stimuli are recorded in memory by verbal code, visual code, or both. The best information retrieval and absorption occurs when both visual and verbal code is enabled to store information. The information shown in visual advertising activates visual and oral codes to store information for future recalls. It has been found in previous research that the use of visual and verbal codes provides the best results with picture information supported by verbal information through additive effects (Pavio, 1971).

Mixed results have been found when comparing the effects of visual and verbal elements in print advertising (Xue & Muralidharan, 2015). Studies have primarily emphasized the importance of visual components, which influence attitudes to a greater extent than verbally focused advertising (Mitchell & Olson, 1981; Xue, 2014). Walters, Sparks, and Herington (2007) found that visual information interacts with verbal components and influences consumers' responses to print advertising, while other studies have more generally shown that combining visual and verbal elements makes advertising more effective (Xue & Muralidharan, 2015). Combining both types of elements in advertising has been shown to deliver significant results in consumers' purchase behaviors and attitudes compared to advertising with only verbal or only

visual elements (Kim et al., 2016). Jaeger and MacFie (2001) indicated that advertisements with both visual and textual information create different expectations among consumers than advertising using verbal information only. If advertising includes verbal elements that are visually supported, it prompts memory and stronger recall, especially when the images are interactive (Xue, 2014; Xue & Muralidharan, 2015).

Tourism researchers have analyzed advertising in terms of message formats previously. Decrop (2007) identified four components of print advertising (i.e., images, logos, verbal elements, and headlines) to investigate the relationship between the message format of an urban tourism destination and the effectiveness of print advertising. He found that although logos and headlines are important, images and verbal elements are the dominant factors of an ad's effectiveness. In particular, verbal features are effective in visually attracting consumers, promoting behavioral intentions, and conveying information. Later, Xue and Muralidharan (2015) examined the effects of verbally based claims of environmentally focused messages and corresponding visuals elements on consumers' attitudes toward advertising. They found that pairing verbal claims with visuals ones can prompt responses to advertising and improved attitudes toward an ad. Specific to hospitality, Kim, Kim, and Kim (2016) investigated the relationship between message type (i.e., verbal and visual) and cause-related marketing in a restaurant setting. They found that restaurant messages that combine both types of formats are more effective than messages with only verbal elements in producing positive attitudes and behavioral responses among consumers. Based upon the extant literature and the dual code theory, Hypothesis 1 is as follows:



**H1.** Attendees rate their perceptions of green messages differently when viewing green convention messages that combine message types (i.e., verbal claims including visuals) compared to when viewing green convention messages that use only verbal claims.

**H1a.** A green message that combines message types will influence a higher favorable impact on attitude toward the advertisement.

**H1b.** A green message that combines message types will influence a higher favorable impact on attitude toward the convention overall.

**H1c.** A green message that combines message types will influence a higher favorable impact on an individual's pro-environmental intention related to environmental protection.

## **Message Appeal**

In green advertising, *message appeal* refers to applying persuasive pressure to stimulate consumers to buy what they want or need (Johanna & Karin, 2016). The process of using message appeal is reflected in the idea that consumers' decisions are primarily rational or emotional (Hoyer & MacInnis, 2004). In general, a rational message appeal provides practical information, whereas an emotional message appeal is a psychological form of outreach derived from a product, service, or brand. The concept of message appeal plays an important role in advertising because messages should create a positive impression upon consumers (Zhang et al., 2014). The type of message appeal impacts the effectiveness of advertising messages and consumers' responses and significantly influences consumers' attitudes and behaviors (Hongxia, Jin, Fang, & John, 2014; Liu, Wen, Wei, & Zhao, 2013).

Among the various types of message appeals in green advertising, most are categorized as either rational or emotional. According to previous studies, rational and emotional messages create different responses among consumers based on their differences, the products advertised, and the markets in which they are advertised (Dens & De Pelsmacker, 2010; Yoo & MacInnis, 2005). On the one hand, rational appeals assume that consumers will make reasonable decisions. Therefore, the goal of a rational advertising approach is to change consumer's beliefs about the brand by using arguments and sound reasoning (Albers-Miller & Stafford, 1999). Therefore, rational advertising appeals should present information simply and objectively (Stafford & Day, 1995). Johar and Sirgy (1991) have observed that rational appeals often focus on a product's practical benefits, including its superior quality, economy, value, performance, or reliability. It has been suggested that rational appeals succeed by elaborating on the thoughtful refinement of arguments made, thereby prompting changes in the beliefs and behaviors of consumers (Zinn & Manfredi, 2000).

On the other hand, emotional appeals target emotions and sensibilities, including a sense of adventure, fear, love, and a sense of status (Cutler & Javalgi, 1993). Emotional appeals stress the emotional aspects of consumption, attempt to stimulate either positive (e.g., love, pride, humor, and joy) or negative emotions (e.g., fear and guilt), and stimulate psychological arousal to induce individuals to take purchasing action (Andreu, Casado, & Mattila, 2015). Stimulating positive or negative emotions can affect the behaviors of consumers in particular ways. This encourages brands to apply effective delivery mechanisms or increase the confidence of consumers in their ads (Leonidou & Leonidou, 2009; Yoo & MacInnis, 2005).

Studies have revealed mixed results on the use of emotional versus rational appeals (Lwin, Phau, Huang, & Lim, 2014). Some have demonstrated that a rational appeal can be a

good predictor of message palatability and brand attitude, though emotional appeals are often more effective because they promote emotional connections with the brands advertised (Andreu, Casado, & Mattila, 2015). Noble, Pomeroy, and Johnson (2014) investigated the relationship between message appeals (i.e., rational, negative emotional, and positive emotional) and advertising effectiveness in pro-environmental social advertising and found that rational advertising appeals are not as effective as emotional ones. Zhang et al. (2014) examined emotional and rational advertising appeals in the restaurant industry and observed that emotional appeals prompted greater purchase intentions for products promising an experience, whereas, rational messages prompted greater purchase intentions for services. More recently, Hardeman, Font, and Nawijn (2017) found that emotional and enthusiastic appeals, not rational ones, spurred pro-sustainability behaviors.

Although classifying appeals as either emotional or rational has value, some researchers have also expressed concern about that dichotomy and argued that message appeals are not mutually exclusive (Calder & Gruder, 1989). Despite this, it has been recognized that using a combination of both appeals strives to create a friendly, affluent brand that makes consumers view buying and experiencing the related products positively (Alberts-Miller & Stafford, 1999).

In sum, message appeals in green advertising are used to attract consumers' attention, appeal to their emotions, and change their attitudes toward the advertised products or service (Brennan & Binny, 2010). Based on the literature review, the following hypotheses are proposed.

**H2.** Attendees have different perceptions of a green message when processing rational appeal versus emotional appeal messages.

**H2a.** An emotional appeal message generates a higher level of attitude toward the advertisement.

**H2b.** An emotional appeal message generates a higher level of attitude toward the convention overall.

**H2c.** An emotional appeal message generates a higher level of an individual's pro-environmental intention related to environmental protection.

## **Theoretical Basis**

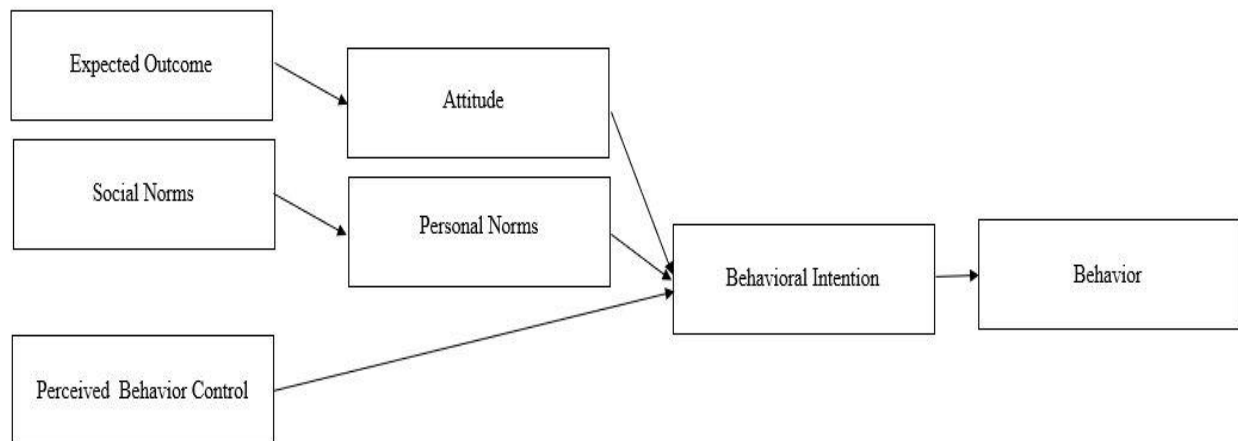
### **The Theory of Planned Behavior**

Among the most supported theories in social psychology, the Theory of Planned Behavior (TPB) has been applied in various contexts to predict human decision-making and behaviors (Rivis, Sheeran, & Armitage, 2009). As a foundational predecessor theory, the Theory of Reasoned Action focused solely on the willingness of an individual to incorporate an attitude toward behaviors and subjective norms. The TPB expands this theory by considering non-motivating processes along with willingness and takes perceived behavioral control into consideration (Ajzen, 1991; Armitage & Conner, 2001; Rivis et al., 2009). The TPB takes into account the volitional process of individuals as well as their willingness to comply with behavioral and subjective norms. The formation of an individual's intent can be explained more effectively and comprehensively with the TPB because it accounts for willful as well as involuntary processes (Ajzen, 1991; Han & Kim, 2010).

Figure 2.1 shows the Theory of Planned Behavior. The TPB ultimately assumes that an individual's behavioral intent, or drive that prompts actual behavior, is directly determined by his or her attitude toward behaviors, subjective norms, and behavioral control. Predictors of that

intention are based on beliefs of behavioral assessment, formative assessment, and control. All of these weigh heavily on the cognitive abilities of outcome assessment, compliance motivation, and control factors (Ajzen, 1991; Ajzen & Fishben, 1980). The high predictive power of the TPB has encouraged its adoption as a prime predictor of behavior in diverse activities and industries, including the selection of travel mode health regulation, drinking and driving, as well as actions in the domain of environmental and pro-social behavior (De Groot & Steg, 2007).

**Figure 2.1. Theory of Planned Behavior**



Specific to hospitality, several studies examining hotel contexts have utilized the TPB. Han, Hwang, Kim and Jung (2015) found that the moral norms of hotel guests were the most influential antecedent in predicting their green behavioral intention to stay at hotels. They also found that an individuals’ personal norms played a key role in promoting their pro-environmentally behavior. In a separate study, Park and Kim (2014) found three influential factors (i.e., stakeholder pressure, economic opportunities, and top managers’ personal environmental concern) that impacted the formation of manager attitudes toward the adoption of an eco-friendly program. These indicate that stakeholder pressure is the most important predictor

to understand managerial attitudes of implementing a green program. Han, Hsu, and Sheu (2010) suggested that the Theory of Planned Behavior is the best framework in order to understand the formation of hotel customers' intentions to stay a green hotel.

Specific to restaurants, Jang, Zheng, and Bosselman (2017) investigated the effects of top managers' values and leadership in environmental sustainability. They found that key variables to understand environmental sustainability included environmental values, leadership, stakeholder engagement, environmental sustainability, and restaurant performance. Also, they found that top management values and leadership in environmental commitment played critical roles. Moreover, Kim, Nijite, and Hancer (2013) examined the relationship between consumers' acceptance and engagement and their behavior in the restaurant industry. They found that emotion influences customers' engagement. In addition, Raab, Baloglu, and Chen (2018) explored understanding the motivation of adoption and implementation of sustainable practices by applying the Theory of Planned Behavior. They indicated that casual restaurant managers are affected by pressures such as their suppliers and customers.

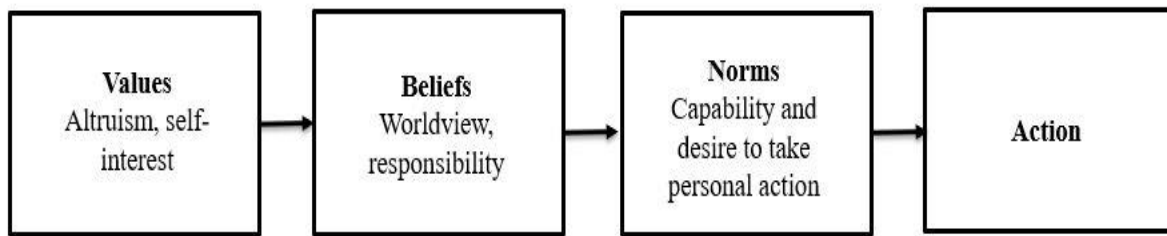
### **The Value-Belief-Norm Theory**

Sustainability-related behaviors are more specific than general decision-making behaviors; while the latter is typically integrated into life choices, sustainability is a concept more aligned with personal values (Han, 2014). To explain the importance of personal environmental norms on environmental intentions, the Value-Belief-Norm (VBN) Theory was developed (Stern, 2000). Stern (2000) responded to the then-constant struggle to derive models that accurately predicated eco-friendly behavior. The VBN theory has since been recognized frequently in literature on environmental-behavior (Steg, Dreijerink, & Abrahames, 2005).

Normative behavior suggests that human behavior is motivated by two types of social norms: descriptive norms and injunctive norms. According to Cialdini et al. (1991), descriptive social norms are based upon perceptions of how other people behave that can inform individuals about effective and adaptive behaviors in certain situations. Conversely, injunctive social norms are based upon perceptions of the acceptance or rejection of behaviors by others according to social rewards and punishments associated with engaging or not engaging in those behaviors (Smith et al., 2012). In either case, social norms encourage or limit social behaviors without necessitating the power of law. Hence, using injunctive and descriptive appeals can encourage consumers to act more sustainably (Hardeman, Font, & Nawijn, 2017). Figure 2.2. shows the Theory of Value-Belief-Norm Theory.

Social norms play a critical role in determining how individuals interpret situations and act within their societies (Cialdini, Kallgren, & Reno, 1991). Steg and Vlek (2009) have suggested that injunctive norms indicate the extent to which an act is considered worthy of approval or disapproval; that is, the injunctive norm concisely tells an individual what to do (Matthies et al., 2012). By indicating which behaviors will accrue social rewards or punishments, injunctive norms reflect the perception of what others approve or reject. White and Simpson (2013) have tested the effects of using self-benefit and social norms among consumers at the individual and collective levels. When the collective level of the self is activated (e.g., using pronouns such as we and us), consumers respond better to messages using injunctive norms, because such norms are more involved in fulfilling social obligations (Jacobson, Mortensen, & Cialdini, 2011) and achieving the interests of a social group (Smith & Louis, 2008). By contrast, descriptive norms that focus on what others are doing should be consistent with collective thinking.

**Figure 2.2. The Value-Belief-Norm Theory**



Descriptive and injunctive norms have been found to be significant in determining environmentally friendly behaviors (Johanna & Karin, 2016). Both types of norms represent individual sources of motivation and have distinct impacts on behaviors. Extant research has analyzed the role of social norms in improving pro-environmental behavior, to include whether descriptive or injunctive norms have a greater impact (Johnstone & Tan, 2015; Nolan, Schultz, Cialdini, Goldstein, & Griskevicius, 2008; Reno, Cialdini, & Kallgren, 1993). It has been found that injunctive norms tend to induce behaviors in an immediate context in which other people's actions can occur and be observed, whereas descriptive norms can prompt responses in various situations (Johanna & Karin, 2016).

In other studies, researchers have considered characteristics of the interactions of both injunctive and descriptive norms in order to identify how they affect behaviors differently (Johnstone & Tan, 2015). Among those studies, Schultz et al. (2008) found that including injunctive norm-oriented information can improve potential descriptive norms. White and Simpson (2013) examined the effects of using social norm appeals at the levels of individual versus collective consumers. They argued that at the self-activated collective level, consumers react more strongly to messages with injunctive norm claims than to descriptive since the former focuses on fulfilling social obligations (Jacobson, Mortensen, & Cialdini, 2011; Smith & Louis,



2008). Hardeman, Font, and Nawijn (2017) suggested that the combination of message appeal and social norms can result in sophisticated, positive responses to messages. Zanon and Teichmann (2016) suggested that message appeal and social norms are critical antecedents of advertising effectiveness. They indicated that combining descriptive and injunctive norms with emotional appeals is a primary antecedent to advertising effectiveness. Diedring (2008) also found that combining persuasive factors can affect an individual's attitude or behavioral intent.

Specific to hospitality in the context of green hotels, researchers have focused on descriptive normative beliefs. It has been suggested that others' beliefs about environmental behavior have a strong positive correlation with their own individual pro-environmental behavior (Gockeritz, Schultz, Rendon, Cialdini, Goldstein, & Griskevicius, 2009). De Leeuw, Valois, Ajzen and Schmidt (2015) reported that descriptive norm beliefs account for 60% of descriptive norms concerning pro-environmental behavior. Their results indicate that the environmental behavior of others positively relates to their behaviors at the individual level. Descriptive norms focus on what others are doing and thus necessarily reflect collective thinking. Researchers thus have to consider the influence of a combination of injunctive and descriptive norms on advertising effectiveness as well as on the behavior of participants.

Based on the literature, Hypothesis 3 was developed:

**H3.** Attendees have different perceptions of a green message when processing injunctive norm claims versus descriptive norm claims.

**H3a.** An injunctive norm claim generates attitude toward the advertisement.

**H3b.** An injunctive norm claim generates a higher level of attitude toward the convention overall.

**H3c.** An injunctive norm claim generates a higher level of an individual's pro-environmental intention related to environmental protection.

## **Summary of Hypotheses**

Based on the literature review, the following proposed hypotheses serve as the basis for this research. Figure 2.3 provides a theoretical research model.

**H1.** Attendees rate their perceptions of green messages differently when viewing green convention messages that combine message types (i.e., verbal claims including visuals) compared to when viewing green convention messages that use only verbal claims.

**H1a.** A green message that combines message types will influence a higher favorable impact on attitude toward the advertisement.

**H1b.** A green message that combines message types will influence a higher favorable impact on attitude toward the convention overall.

**H1c.** A green message that combines message types will influence a higher favorable impact on an individual's pro-environmental intention related to environmental protection.

**H2.** Attendees have different perceptions of a green message when processing rational appeal versus emotional appeal messages.

**H2a.** An emotional appeal message generates a higher level of attitude toward the advertisement.

**H2b.** An emotional appeal message generates a higher level of attitude toward the convention overall.

**H2c.** An emotional appeal message generates a higher level of an individual’s pro-environmental intention related to environmental protection.

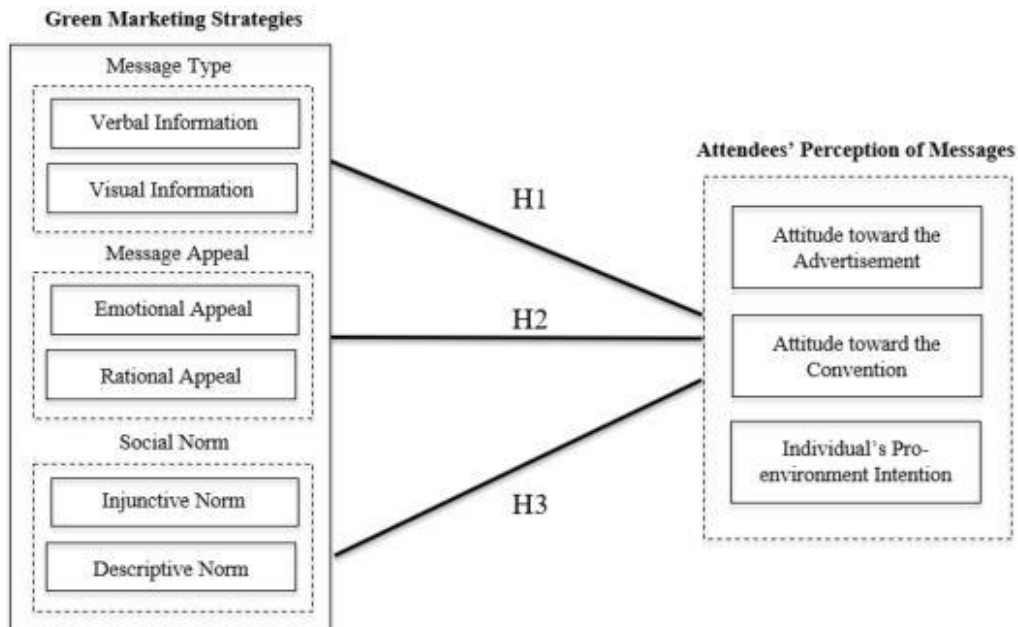
**H3.** Attendees have different perceptions of a green message when processing injunctive norm claims versus descriptive norm claims.

**H3a.** An injunctive norm claim generates a higher level of attitude toward the advertisement.

**H3b.** An injunctive norm claim generates a higher level of attitude toward the convention overall.

**H3c.** An injunctive norm claim generates a higher level of an individual’s pro-environmental intention related to environmental protection.

**Figure 2.3. Theoretical Research Model**



## Chapter 3 - Methodology

The purpose of this study is to investigate the impact of message types (verbal claim versus visual claim), message appeals (rational versus emotional), and social norms (injunctive versus descriptive) on potential convention attendees' attitude toward the advertisement, attitude toward the convention, and pro-environmental intention. This chapter describes the sampling frame, experimental design, questionnaire, stimulus manipulations, independent and dependent variables, measurement scales, and statistical methods used in data analysis and hypothesis testing. Figure 3.1 provides data collection and analysis procedures.

**Figure 3.1.** Data Collection and Analysis Procedures



The data collection for this study consisted of two steps. The initial data collection consisted of pilot testing the instrument of stimulus advertising and to help establish the reliability of the measurement instrument. The second phase of the data collection tested the study's hypotheses in the general population via Amazon Mechanical Turk. This chapter is divided into the following sections: sample, stimuli development, manipulation check, measures, and analysis.

### **Population and Sample**

This study employed a 2 (message types) x 2 (message appeals) x 2 (social norms) experimental approach to understand the effects of message types, message appeals, and social norms of green message content on attendees' behavioral intention. This experimental design is well-recognized as a method for examining association relationships because it enhances internal validity and the robustness of the research findings (Fong, Law, Tang, & Yap, 2016; Kline, 2011).

Samples were collected online using Amazon Mechanical Turk. Data collection continued until proper cell size was obtained for analysis. Sample sizes for multivariate analysis should have at least 20 respondents in each cell (Hair, Anderson, Tatham, & Black, 1998). At least 150 respondents for each cell were used in this study.

Each cell size remained nearly the same by allowing the response analyzer to be randomly distributed in the cells, making analysis more intuitive (Hair et al., 1998). Cell sizes were approximately 150 respondents each. Respondents in each cell were exposed to a manipulated advertisement. The advertisement was one of eight advertisements detailed in the

stimulus manipulations. After exposure to one of the eight possible advertisements, each participant was asked to respond to questions to measure the variables.

The developed hypotheses were tested via Amazon Mechanical Turk with a sample of convention attendees from the United States (US). Amazon Mechanical Turk has been identified as representative of US consumer demographics (Mason & Suri, 2012). Moreover, Amazon Mechanical Turk typically yields a significantly more diverse sample than what is commonly achieved in standard Internet sampling (Buhrmester, Kwang, & Gosling, 2011).

### **Experimental Design**

To test association relationships about the effectiveness of green convention advertisements, a 2 x 2 x 2 experimental design was utilized. All eight advertisements are shown in Table 3.1. With this research design, 1200 samples were randomly divided into eight groups. All the respondents in each cell responded to the same questionnaire to measure the effectiveness of the advertisement.

Table 3.1. Assignment to conditions

1. Verbal claims including visuals, rational, injunctive	5. Verbal claims excluding visuals, rational, injunctive
2. Verbal claims including visuals, rational, descriptive	6. Verbal claims excluding visuals, rational, descriptive
3. Verbal claims including visuals, emotional, injunctive	7. Verbal claims excluding visuals, emotional, injunctive
4. Verbal claims including visuals, emotional, descriptive	8. Verbal claims excluding visuals, emotional, descriptive

### **Questionnaire**

The questionnaire consisted of several sections. To help ensure the proper sample was utilized and to avoid misrepresentation by the online respondent, extensive screening questions

were carefully designed and utilized. For example, instead of asking if the participant was over 18 or not, which could be a leading question, the question read “How old are you?” with the responses being “Under 18”, “18-24”, “25-34”, “35-44”, “45-54”, “55- 64”, “65-74”, “75-84”, “85 or older”. If the respondent selected “under 18”, the survey ended. Next, instead of asking “Do you have a full-time job”, the following question was asked: “Which of the following best describes your work situation?” The answers were generically worded so it was not obvious what the researchers were looking for and read “Full-time employee at this company for more than a year”, “Full-time employee at this company for less than a year”, “Part-time employee”, “Independent business”, “Stay at home parent”, “Student”, or “Unemployed”. If they selected “Full-time employee at this company for less than a year,” “Part-time employee,” “Stay at home parent,” “Student,” or “unemployed”, the survey ended. In a similar fashion, the next question read “Which of the following best describes your position?” Potential responses included “Upper-level management,” “Lower-level management,” “Front-line employee,” “Owner/partner,” or “Independent contractor”. If they select “Front-line employee,” the survey ended. Lastly, “How many times have you attended a convention with at least 100 people in the past year?” Responses read “0”, “1”, “2”, “3”, “4”, or “More than four”. If they selected “0” or “1”, the survey ended.

Once screening questions were successfully passed, the respondent was able to access the survey. The first section of the questionnaire asked the respondents to view an advertisement. One of the eight manipulated advertisements was randomly displayed. When the responder continued by clicking the arrow, the advertisement disappeared and was not able to be accessed again. Then, the questions appeared that measure the dependent variables being analyzed in this study. This occurred after the respondents saw the advertisement and were exposed to the

stimulus variable. Dependent variables consisted of three dimensions of advertisement effectiveness. These dimensions are discussed in detail below.

In the last section of the survey, demographic information was collected. In terms of gender, the study used three items: male, female, or prefer not to answer. In terms of educational level, the study used the following items: Some school, high school, associates degree (2 years), bachelor's degree (4 years), master's degree, or doctorate/professional/ graduate degree (MD, DO, Ph.D., JD). Household income was measured: \$35,000 or less, \$35,001-\$55,000, \$55,001-\$75,000, \$75,001-\$95,000, more than \$95,000, or prefer not to answer. Lastly, regarding ethnicity, the study used the following items: African American, Hispanic-Latino, Caucasian, Asian American, Bi-/multi-racial, other, or prefer not to answer.

## **Procedures**

The current study consisted of the pilot study and the main study. The purpose of the pilot study was to examine the validity and reliability of the measurement scales. In the main study, hypotheses were tested using a quasi-experimental research design. Participants conducted online surveys after agreeing via electronic links. Each participant was randomly assigned to one of eight experimental conditions. According to Kuehl (2000), a randomized experiment minimizes the effects of individual characteristics, while creating strong reliability and validity for statistical estimates of manipulated factors.



## Stimulus Development

### Message Types

A verbal message about the greening efforts of an advertised convention was added to both of the control copies to make them green through text. The measurement items were extracted from existing relevant literature (Xue, 2014; Xue & Muralidharan, 2015). This study used two types: verbal claims including visuals vs. verbal claims excluding visuals. Figure 3.2 shows the visuals for message types.

**Figure 3.2.** Visuals for message types



### Message Appeals

The two message appeals to be used in this study include emotional and rational advertising. These measurements are based on Puto and Wells' (1984) categorization. According to this categorization, emotional advertising appeals are designed to induce emotional arousal and create feelings of excellence. In contrast, rational advertising appeals are direct and involve actual information. The measurement items for this study were extracted from Zhang et al., 2014, and adjusted to fit this study.

For green messages with a rational claim, the green text was added to read, “Our convention initiatives focus on sustainability practices that maintain natural resources in the long-term by recycling and reusing materials”. For green messages with an emotional claim, the measurement items were drawn Zhang et al., 2014. The added green advertising copy read, “Our convention encourages you, your customers, employees, and others partners to take a thoughtful approach toward the environment.”

### **Social Norms**

Similar to the other elements of this study, the measurement items in this section were drawn from existing relevant literature (Ajzen, 1991; Ajzen & Fishbein, 1980; Hardman, Font, & Nawijn, 2017; Smith et al., 2012) and then adjusted to fit this study. The added green text with the injunctive norms read as follows: “Our convention attendees approve of those who practice sustainability while at the convention, such as energy and water conservation.” The green message with descriptive norm had almost the same basic copy as follows: “Our convention attendees practice sustainability while at the convention, such as energy and water conservation.”

### **Measurement of Environmental Involvement**

Consumers that are environmentally responsible in their daily lives will give greater importance to the green business (Xue & Muralidharan, 2015). Environmental involvement indicates how people are concerned about environmental conditions and how they are reflected in specific actions to protect the environment (Schuhwerk & Lefkoff-Hagius, 1995). In other words, Schuhwerk and Lefkooff-Hagius (1995) suggested that a higher-level of environmental involvement will increase chances of a consumer being more interested in the advertisement’s

environmental messages. In order to measure and control respondents pre-disposition to this area, this study used the control measurement items extracted from Millar, Mayer, & Baloglu, 2012 and Schuhwerk & Lefkoff-Hagius, 1995. Items included, “I am concerned about the environment”, “The condition of the environment affects the quality of my life”, “I am willing to make sacrifices to protect the environment”, and “My actions impact the environment”.

## **Measures**

Studies related to sustainability have shown that demographic factors, such as gender and age, can differentially affect consumers’ emotional responses (Shoham & Brencic, 2004; Zuckerman, 1994). To investigate the impact of these variables and provide the sample’s characteristics, each respondent received basic demographic questions such as gender, educational level, household income, and ethnicity.

To evaluate the participants’ perceptions of the messages, this study measured the dependent variables of all messages in the following order: attitude toward the advertisement, attitude toward the convention, and pro-environmental intention. Previous studies have also measured advertising effectiveness using various dimensions such as attitude toward an advertisement, behavioral intention, and an individual’s environment-friendly activities.

The participants’ attitudes toward the advertising were measured with statements adapted from MacKenzie and Lutz (1989); Mitchell and Olsen (1981); and Wells, Leavitt, and McConville (1971). Six items with 7-point bipolar adjectives were utilized to determine attitudes toward the advertising. The participants were asked to indicate an overall representation of semantic pairs for the tested advertising. For example, Bad (1) – Good (7), Unpleasant (1) – Pleasant (7), Unfavorable (1) – Favorable (7), Not convincing (1) – Convincing (7), Believable

(1) – Unbelievable (7), Very complex (1) – Not complex (7), Very dense (1) – Not dense (7), Very interactive (1) – Not interactive (7), and With lots of variety (1) – With no variety (7).

To measure attitude toward the convention, the participants were asked to indicate the likelihood that they would attend the convention. The measurement items in the present research were drawn from Ajzen, 1991 and Han and Hyun, 2017 and then adjusted to fit this study. For example, “In your opinion, this convention would be of good quality,” “In your opinion, this convention would be favorable,” “I would be willing to attend this convention in the future,” “I would plan to attend this convention in the future,” and “I would expand efforts to attend the convention in the future.”

To measure an individual’s pro-environmental intention, the participants were asked to indicate the probability that they would stay at the convention. The measurement items were drawn from Han, 2014 and Han & Hwang, 2017 and then adjusted to fit the study. Attendees were prompted with the phrase, “The next time I attend a convention...” and then asked to select among the following:

- I will try to save water and electricity.
- I will avoid using disposable products.
- I will actively follow the convention’s environmental code of conduct.
- I will expend effort on disposing of garbage and recycling properly.
- I will actively practice environmentally responsible activities.

### **Pre-Test and Pilot Study**

In the first stage of the pilot study, a convenience sample of ten experts were asked to rate test advertisements. First, participants were asked to read instructions regarding the experimental protocols. The experiment administrator responded to the participants’ questions and understanding of the guidelines for the study before exposure to the stimulus.

In the second phase of the pilot study, various manipulations of message appeals and type of social norms were verified. In order to check manipulation, three items of emotional and rational appeals (logical/emotional; objective/subjective; and factual/nonfactual) were used (Liu & Stout, 1987). Three items were used to measure injunctive norms and descriptive norms (Smith et al., 2012). An example of an injunctive norm reads, “Would you say that typical attendees approve of those who conserve energy on a daily basis?”; whereas for descriptive norms it would read, “Would you say that the majority of attendees would engage in energy conservation behaviors on a daily basis?”

In the last stage of the pilot study, the subjects ( $n = 50$ ) were collected using Amazon Mechanical Turk. The subjects of this study were excluded from the main study. Subsequently, subjects completed pre-test measurements (i.e., demographics factors and personal involvement) before exposure to advertising stimuli. Each participant was measured immediately after exposure to one advertisement manipulation used in this study. The survey took approximately 15 minutes to complete.

## **Data Collection**

Data was collected using Amazon Mechanical Turk. The scaled items in the instruments reflected participants’ responses to questions indicating agreement or disagreement (Kerlinger & Lee, 2000). Because the questionnaire was self-administered, this improves reliability and confidentiality and can be administered to many people (Kerlinger & Lee, 2000). However, one disadvantage of using this survey instrumentation to collect data is that the questions could potentially have different meanings to independent people. To address this particular concern,

the pilot study was conducted to ensure the validity of the content, reliability, and validity of the instruments.

## **Data Analysis**

This study tested seven variables - three independent, three dependent, and one control. These variables were tested and analyzed using SPSS statistical software. Variables were tested using multivariate analysis of covariance (MANCOVA). Descriptive statistics, statistical tests of differences, and independent-samples t-tests were generated from MANCOVA to analyze the four hypotheses. The statistical analysis of this research was conducted in several stages. The first stage was to clean the data. All data with missing values or outliers was removed from the analysis. The second stage examined the spread and skewness of the data for normality. Since all data was on a Likert scale, no information was removed for this stage. The third stage summarized the data with descriptive statistics as seen in the analysis section below. In the fourth stage, a one-way ANOVA was employed to investigate the internal validity of the manipulations, in other words, the hypotheses tested by MANCOVA and Univariate ANCOVA.

A baseline *p*-value of 0.05 was used to determine whether the hypotheses were rejected or accepted. Research in the social sciences frequently uses 0.05 as a baseline for important research results (Kline, 2001).

## **Chapter 4 - Data Analysis and Results**

### **Profile of the Sample**

There were 2,617 people who began the survey but only 1,203 who passed the screening questions. From the 1,203 participants who had access to the survey, only 1,077 were considered valid samples. These 88 surveys were eliminated due to incomplete responses. A demographic profile of each sample is provided in Table 4.1. Approximately, 66.8% of participants were male, whereas 28.2% were female. The majority of those sampled were 25 to 34 years old (58.8%). In terms of work situation, the majority of those sampled were a full-time employee at their company for more than a year (92.8%) which makes sense due to the screening questions. Regarding position, respondents in lower-level management were the largest group to respond (50.5%), while upper-level management, owner/partner, and independent contractor accounted for 40.9%, 5.4%, and 3.2%, respectively. In terms of conference attendance, those attending a conference two times was the largest group to respond (29.9%), while four times, and more than four accounts for 26.8% and 18.9%, respectively. In terms of education level, participants overwhelmingly had a Bachelor's degree (58.2%), while those with Master's degree, Associates degree (2 years), and High school account for 21.2%, 8.4%, and 5.6%, respectively. In terms of income, respondents making \$35,000 or less were the largest group to respond (26.6%), while those in \$35,001-\$55,000, \$55,001-\$75,000, \$75,001-\$95,000, and more than \$95,000 accounted for 24.8%, 18.6%, 14.5%, and 9.4%, respectively. Regarding ethnicity, Asian Americans were the largest responding group (33.8%), while Caucasians, Bi-multi-racial, African Americans, and Hispanic-Latinos accounted for 30.5%, 12.4%, 7.1%, and 5.9%, respectively.

Table 4.1. Respondents' demographic profiles (n = 1,077)

<i>Characteristics</i>	<i>Frequency</i>	<i>%</i>
<b>Gender</b>		
Male	719	66.8%
Female	304	28.2%
Prefer not to answer	54	5.0%
<b>Age</b>		
18 to 24	167	15.5%
25 to 34	612	58.8%
35 to 44	199	18.5%
45 to 54	62	5.8%
55 to 64	29	2.7%
65 to 74	8	0.7%
75 to 84		
<b>Work situation</b>		
Full-time employee at this company for more than a year	999	92.8%
Independent business	78	7.2%
<b>Position</b>		
Upper-level management	440	40.9%
Lower-level management	544	50.5%
Owner/Partner	58	5.4%
Independent contractor	35	3.2%
<b>How many times have you attended a convention</b>		
1	134	12.4%
2	322	29.9%
3	128	11.9%
4	289	26.8%
More than four	204	18.9%
<b>Education level</b>		
Some school	3	0.3%
High school	60	5.6%
Associates degree (2 years)	90	8.4%
Bachelor's degree (4 years)	627	58.2%
Master's degree	228	21.2%
Doctorate/Profesional/Graduate degree (MD, DO, Ph.D., JD)	16	1.5%



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Income		
\$35,000 or less	286	26.6%
\$35,001-\$55,000	267	24.8%
\$55,001-\$75,000	200	18.6%
\$75,001-\$95,000	156	14.5%
More than \$95,000	101	9.4%
Prefer not to answer	63	5.9%
Ethnicity		
African American	76	7.1%
Hispanic-Latino	64	5.9%
Caucasian	329	30.5%
Asian American	364	33.8%
Bi-multi-racial	159	14.8%
Prefer not to answer	37	3.4%
Other, Please Specify	47	4.4%

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### **Reliability and Validity of the Scales**

Reliability refers to the quality of the scale and its ability to produce similar results when performed at different times. If a scale is unreliable, then its validity is compromised, and the results of corresponding the study cannot be trusted. At the same time, although reliability is a prerequisite for validity, it does not guarantee validity. To ensure reliability in the research presented here, multi-item scales found to be reliable in other studies were utilized (Bailey, 2005). According to Nunnally (1970), reliability is achieved when Cronbach's alpha exceeds  $\alpha = .70$ . To check the reliability of these measures, Cronbach's alpha was determined (Table 4.2). All factor loadings for variables measuring the same construct were relatively high ( $p < .05$ ), ranging from  $\alpha = .79$  to  $\alpha = .89$ , and thus above the recommended  $\alpha = .70$  level (Nunnally, 1978).

Table 4.2. Results of reliability testing

Measurements	Number of items	Cronbach's alpha
Attitude toward the advertisement	9	.797
Attitude toward the convention	5	.891
Individual's pro-environment intentions	5	.860
Environmental involvement	4	.854

Validity is typically associated with accuracy (Yi, 1990) and is often categorized into internal, external, and discriminate validity. Internal validity is an important consideration in experimental studies because it indicates the strength and immediacy of causal relationships. To ensure internal validity, participants were randomly assigned to one of eight experimental cells to prevent bias due to systematic distribution (MacKenzie & Lutz, 1989; Schuhwerk & Lefkoff-Hagius, 1995). By contrast, external validity indicates the generalizability of research findings and thus may require several studies to be conducted or replicated under other conditions. Achieving results similar to previous studies conducted by other researchers can support external validation (Yi, 1990).

## **Hypotheses Testing**

### **Relationship between green message types in advertisements and convention attendees' perceptions**

Hypothesis 1 stated that green message types in advertisements are associated with convention attendees' perceptions of those advertisements in terms of their attitude toward the advertisement, attitude toward the convention, and individual' pro-environmental intentions. Multiple analysis of covariance (MANCOVA) was performed to examine the effect of green message types on attitude toward the advertisement, attitude toward the convention, and individual's pro-environmental intention, covarying out the effect of environmental involvement.

Results showed that environmental involvement significantly related to convention attendees' perceptions. Table 4.3 shows results regarding the relationship between green message types and those perceptions.

Table 4.3. Convention attendees' perceptions by green message type

	Verbal claim including visual elements	Verbal claim excluding visual elements	<i>F</i>
Attitude toward the advertisement	5.452	5.031	4.155*
Attitude toward the convention	5.613	5.510	4.102*
Individual's pro-environmental intentions	5.529	5.506	.111

Note. \* $p < .05$

A significant effect was found between green message types and convention attendees' perceptions (*Wilks's*  $\lambda = .991$ ,  $F = 2.649$ ,  $p < .05$ ). Moreover, multivariate results effect size is 0.021. Follow-up univariate analysis of variance revealed that the verbal including visual group rated a significantly higher attitude toward the advertisement ( $m = 5.452$ ) than the text only group ( $m = 5.341$ ). The results also showed the verbal including visual group rated a significantly higher attitude toward the convention ( $m = 5.613$ ) than the text only group ( $m = 5.566$ ). However, no statistical difference emerged in individual's pro-environmental intention subsequent to exposure to the advertisement ( $F(1, 1024) = .111$ ,  $p > .05$ ). Therefore, Hypothesis 1 was only partially supported.

### **Relationship between green message appeals in advertisements and convention attendees' perceptions**

Hypothesis 2 stated that green message appeals in advertisements are associated with convention attendees' perceptions of those advertisements in terms of the attitude toward the

advertisement, attitude toward the convention, and individual's pro-environmental intentions. Multiple analysis of covariance (MANCOVA) was performed to examine the effect of green message appeals on attitude toward the advertisement, attitude toward the convention, and individual's pro-environmental intention, covarying out the effect of environmental involvement. The results indicated that environmental involvement significantly related to convention attendees' perceptions. Table 4.4 shows the results regarding the relationship between green message appeals and those perceptions.

Table 4.4. Green message appeals and attendees' perceptions

	Rational appeal	Emotional appeal	<i>F</i>
Attitude toward the advertisement	4.811	5.038	5.531*
Attitude toward the convention	5.009	5.411	4.420*
Individual's pro-environmental intentions	4.902	5.536	4.521*

*Note.* \* $p < .05$

A significant effect was found between green message appeals in the advertisements and convention attendees' perceptions of those advertisements (*Wilks's*  $\lambda = .994$ ,  $F = 2.226$ ,  $p < .001$ ). In addition, multivariate results effect size is 0.026. Follow-up univariate analysis of covariance (ANCOVA) revealed that the emotional appeal message group rated a significantly higher attitude toward the advertisement ( $m = 5.038$ ) than the rational appeal message group ( $m = 4.924$ ). In addition, the emotional appeal message group rated a significantly higher attitude toward the convention ( $m = 5.411$ ) than the rational appeal message group ( $m = 5.336$ ). Moreover, the emotional appeal message group rated a significantly higher individual's pro-environment intention ( $m = 5.536$ ) than the rational appeal message group ( $m = 5.468$ ). In other words, Hypothesis 2a, 2b, and 2c were supported. Thus, Hypothesis 2 was supported.

## Relationship between social norms claims in the advertisements and convention attendees' perceptions

Hypothesis 3 stated that social norm claims in advertisements are associated with convention attendees' perceptions of those advertisements in terms of their attitude toward the advertisement, attitude toward the convention, and individual's pro-environmental intentions. MANCOVA was performed to examine the effect of social norm claims on attitude toward the advertisement, attitude toward the convention, and individual's pro-environmental intention, covarying out the effect of environmental involvement. Results showed that environmental involvement significantly related to convention attendees' perceptions. Table 4.5 shows the results of the relationship between the social norm claim and attendees' perceptions.

Table 4.5. Social norms of message and attendees' perceptions

	Injunctive social norm	Descriptive social norm	<i>F</i>
Attitude toward the advertisement	4.917	4.063	3.457*
Attitude toward the convention	5.364	4.091	7.622*
Individual's pro-environmental intentions	5.512	4.301	6.276*

*Note.* \* $p < .05$

A significant effect was found between social norm claims and convention attendees' perceptions (*Wilks's*  $\lambda = .989$ ,  $F = 3.691$ ,  $p < .05$ ). Also, multivariate results effect size is 0.025. Follow-up ANCOVA revealed that the injunctive social norm group rated a significantly higher attitude toward the advertisement ( $m = 4.917$ ) than the descriptive social norm group ( $m = 4.863$ ). Also, the injunctive social norm group rated a significantly higher attitude toward the convention ( $m = 5.364$ ) than the descriptive social norm group ( $m = 5.301$ ). Moreover, the injunctive social norm group rated a significantly higher individual's pro-environment intention

( $m = 5.512$ ) than the descriptive social norm group ( $m = 5.501$ ). In other words, Hypotheses 3a, 3b, 3c are supported. Therefore, Hypothesis 3 was supported.

Overall, hypotheses 1, 2, and 3 are supported. Table 4.6 displays all of the hypotheses and their results.

Table 4.6. Results of hypotheses tests

Statement of Hypothesis	Results
H1a. A green message that combines message types will exert a higher favorable impact on attitude toward the advertisement.	Supported
H1b. A green message that combines message types will exert a higher favorable impact on attitude toward the convention overall.	Supported
H1c. A green message that combines message types will exert a higher favorable impact on an individual's pro-environmental intention related to environmental protection.	Rejected
H2a. An emotional-appeal message generates a higher level of attitude toward the advertisement.	Supported
H2b. An emotional-appeal message generates a higher level of attitude toward the convention overall.	Supported
H2c. An emotional-appeal message generates a higher level of an individual's pro-environmental intention related to environmental protection.	Supported
H3a. An injunctive-norm claim generates attitude toward the advertisement.	Supported
H3b. An injunctive-norm claim generates greater attitude toward the convention overall.	Supported
H3c. An injunctive-norm claim generates a higher level of an individual's pro-environmental intention related to environmental protection.	Supported

**Note.** All hypotheses were tested while controlling for environmental involvement as a control variable.

## **Chapter 5 - Discussion and Implications**

### **Discussion**

Although researchers have focused primarily on the impacts of green products and services on consumers' behaviors, few empirical studies have investigated how to promote such products and services most effectively (Dahl, 2010; Kim et al., 2016). Drawing from the Theory of Planned Behavior and the Value-Belief-Norm theory, the purpose of this study examined how different advertising types, message appeals, and social norm claims can influence convention attendees' attitudes toward green advertisements, attitudes toward the convention, and individual pro-environmental intentions.

To date, marketing literature has highlighted the positive role of green marketing messages in the pro-environmental attitudes and intentions of consumers (Xue & Muralidharan, 2015). The results of this research indicated a positive association between green marketing messages and convention attendees' perceptions. Findings related to Hypothesis 1 showed that green marketing messages combining verbal and visual claims were significantly more effective than messages using text only in improving viewers' attitudes toward the advertisements and their individual's pro-environmental intentions. That finding corroborates the results of other non-hospitality studies that consumers' attitudes and behavioral intentions are influenced by both verbal and visual information (Kim et al., 2016; Walters et al., 2007).

Moreover, the findings related to Hypothesis 2 showed that green marketing messages including emotional appeals were significantly more effective than rational appeals upon attitudes toward the advertisements, attitudes toward the convention, and individual's pro-environmental intentions. This finding aligns with previous non-hospitality findings that

emotional appeals can impact the effectiveness of marketing messages (Chandy, Tellis, MacInnis, & Thaivanich, 2001; Moore, Harris, & Chen, 1995).

Last, the findings related to Hypothesis 3 showed that green marketing messages with injunctive norm claims were significantly more effective than descriptive norm claims upon attitudes toward the advertisements, attitudes toward the convention, and individual's pro-environmental intentions. That finding upholds the results of previous non-hospitality studies that messages with injunctive norm claims were significantly more effective than messages with descriptive norm claims (Cialdini, 2003; Cialdini & Demaine, 2006).

### **Theoretical Implications**

From a theoretical perspective, according to the dual code theory, visual information is more effective than verbal information in achieving the absorption and retrieval of information among individuals because it activates both visual and verbal codes for storing information (Paivio, 1971). Tellis (2004) later noted the relationship between textual content and advertising effectiveness. This could help inform the application of a conceptual model in the context of conventions, which could help to advance the dual code theory.

Second, research in hospitality has rarely focused on social norm claims in green advertising but instead has investigated the role of social norms in enhancing pro-environmental behavior (Cialdini & Demaine, 2006; Johnstone & Tan, 2015; Nolan et al., 2008). This research investigated the relationship between the role of social normative claims (i.e., injunctive and descriptive norm claims) in advertising and the effectiveness of those advertisements. In relation to the VBN theory, this research has extended the conceptual model of the green message into the context of conventions and social norms in the convention industry. According to the



findings, convention attendees' rated injunctive norm claims as being more effective than descriptive ones in promoting their pro-environmental attitudes and intentions. Injunctive norm claims provoke more effortful processes in various settings (Cialdini & Demaine, 2006).

According to Stern's (2000) interpretation, the VBN Theory suggests that an individuals' environmentally responsible behavior is triggered by an individual norm perceived to be able to reduce threats to values and order. In contrast, this research found that injunctive norm claims play an important role in promoting convention attendees' pro-environmental behavior. Most marketing studies on green consumers, green behavior, and green consumption are influenced by psychological theories, including the Theory of Reasoned Action (Fishbein & Ajzen, 1975), which relates beliefs about behavior and the evaluation of results of behavior to attitudes. The TPB is an extension of that theory that adds perceived behavioral control as an antecedent of both intentions and actions (Ajzen, 1985). Nevertheless, how attitude-behavior relates to green behavior remains unclear (Black, 2010).

This study also found that emotional appeal message is a critical factor. The direct application of specific sociopsychological theories is often considered to be insufficient in relation to clarifying individuals' complex pro-environmental decision-making processes and their related behavior (Bamberg & Möser, 2007). The deconstruction of the conceptual framework of the VBN theory has allowed travelers to introduce a concept focused on explaining the importance of green messages to environmentally responsible decision-making processes. Extensions of this theory have addressed pro-environmental intention and behavior (Oreg & Katz-Gerro, 2006). Some studies have found that anticipated feelings of pride and guilt, which respectively represent favorable and unfavorable aspects of the emotional process, have been used with predicated emotional states expected to make pro-environmental intentions and

behavior more predictable (Kim, Njite, & Hancer, 2013; Onwezen, Antonides, & Bartels, 2013). In that sense, the findings of this study suggest that the VBN theory, from an emotional perspective, can inform green marketing messages used in the convention and hospitality industries by clarifying ways to effectively promote green services.

### **Practical Implications**

From a practical perspective, this research investigated the efficacy of two green message types in the context of conventions: one with verbal claims including visual elements and one with text only elements. According to the findings, the attention of convention attendees appears to be affected by verbal claims with visual elements, which indicates that messages with those claims achieved the desired effect (Thørgersen, 2000). Those findings are important for convention marketers who plan to include environment-related messages in their advertising campaign. Although verbal information is essential to inform convention attendees, visual elements should also be used when marketers want to project a green image for the organization. Thus, green convention organizers are advised to use a combination of green elements in both verbal and visual modes in their advertising, ideally by allowing enough space for both types of elements, which can increase the visibility of their green messages.

This research also found that using emotional appeals is more effective than using rational appeals to boost the effectiveness of advertising. This finding has several implications for marketing strategies to improve the effects of promotion in green advertising. In particular, the findings suggest that green messages with emotional appeals can promote convention attendees' attitudes toward the advertisement and conventions themselves, as well as their individual pro-environmental intentions.

Along similar lines, conventions need to increase their ability to leverage social norms to create business value, which requires a strategic perspective of convention marketing. Previous studies have shown that the use of social norms is limited (Han et al., 2017). It is important for convention management to understand the strategic roles that social norms can play in attracting potential attendees via advertising, particularly given their ability to efficiently and effectively influence behavior in green contexts (Burchell, Rettie, & Patel, 2012). For green marketing in the convention industry, convention organizers should, therefore, consider applying social norm claims in their advertisements.

### **Limitation and Suggestions for Future Research**

There are some limitations to this study. First, the questionnaire measured participants self-expressed behavioral and purchase intentions but not their actual behaviors or purchases. Actual behavior can differ from self-reported intentions. Because of the comparative nature of the research, however, the difference in intentions and actual behaviors does not significantly threaten the conclusion that some of the advertisements presented in the survey were more effective than others. Next, participants viewed specific advertisements during data collection. In real life, however, consumers see advertisements only if the advertisements attract their attention. The real success of an advertisement thus depends upon whether it attracts the attention of consumers. Also, some of the screening questions may have eliminated participants that could potentially have qualified but may not have seen their position accurately posted to make a selection (such as K-12 teachers). Lastly, this study was conducted online via Amazon Mechanical Turk to a general population. Some advertisements for specific target markets might

have different outcomes. Additionally, these results may not be generalizable to print advertisements.

As the results suggested, in the future researchers should consider the impact of demographic and psychographic factors on the effectiveness of green marketing messages. For instance, participants could be grouped by demographic factors, including age, gender, ethnicity, education, and motivation to attend events. Consequently, researchers could understand whether those factors impact the effectiveness of eco-marketing. Furthermore, because environmental issues span national boundaries, it is suggested for future research to account for culture. Although researchers have taken preliminary steps to that end, cross-cultural testing of relationships remains in its infancy in marketing research.

Lastly, in the future researchers should consider using additional moderator variables or control variables, including pre-existing attitudes, knowledge of the environment, and experience. The reason for using a fictional convention name (i.e., COLUMBUS CONVENTION) was to avoid entangling the impact of messages and participants' familiarity with actual conventions. By controlling for the manipulation, however, researchers could use messages from various actual conventions with their attendees.

## **Chapter 6 – Summary and Conclusions**

This chapter summarizes the objectives and major findings conducted during the research reported here, discusses the conclusions and implications of the findings, and presents the limitations of the research and suggestions for future studies.

### **Research Summary**

Because green marketing has become an essential tool for marketing, advertising, and customer service in diverse industries, an increasing number of studies on green marketing in various contexts have emerged in recent decades. However, most of those studies have focused primarily on the impacts of green products and services on consumer behaviors, whereas empirical studies on how most effectively to promote those products and services have been few (Dahl, 2010; Kim et al., 2016). Drawing from the Dual-Code Theory and the Value-Belief-Norm theory, the research reported sought to explore how different types of advertising, message appeals, and social norm claims influence consumers' attitudes toward green advertisements, attitudes toward green events in the convention industry, and pro-environmental intentions. The research had three objectives: to compare how to message types in green advertising affect those attitudes and intentions, to examine how message appeals in green advertising affect them as well, and to investigate, to examine how message appeals in green advertising affect them as well, and to investigate the role of claims about social norms in green advertising in the formation of those attitudes and intentions. To the best of the researcher's knowledge, the research was the first to empirically investigate the effectiveness of green marketing in the convention industry.

## **Major Findings**

The results of the research generally indicated a positive association between green marketing messages in advertisements and convention attendees' perceptions of those advertisements. Findings related to Hypothesis 1 showed that such messages combining verbal and visual claims were significantly more effective than ones using verbal claims only in improving attendees' attitudes toward the advertisements and their individual pro-environmental intentions. That finding corroborates the results of others studies that consumers' attitudes and behavioral intentions are influenced by both verbal and visual information (Kim et al., 2016; Walters et al., 2007; Yoo & Kim, 2014).

Moreover, the findings related to Hypothesis 2 showed that green marketing messages with emotional appeals were significantly more effective than ones with rational appeals in changing attitudes toward the advertisements, attitudes toward the convention, and individual pro-environmental intentions. That finding aligns with previous results that emotional appeals can affect the effectiveness of marketing messages (Chandy, Tellis, MacInnis, & Thaivanich, 2001; Moore, Harris, & Chen, 1995).

Last, findings related to Hypothesis 3 showed that green marketing messages with injunctive norm claims were significantly more effective than ones with descriptive norm claims upon attitudes toward the advertisements, attitudes toward the convention, and individual pro-environmental intentions. That finding upholds the results of previous studies that messages with injunctive norm claims are significantly more effective than messages with descriptive norm claims (Cialdini, 2003; Cialdini & Demaine, 2006).

## **Conclusions and Implications**

From a theoretical perspective, previous hospitality studies have rarely focused on social norm claims in green advertising but instead investigated the role of those claims in enhancing pro-environmental behavior (Cialdini & Demaine, 2006; Johnstone & Tan, 2015; Nolan et al., 2008). The research reported here investigated the relationship between the role of social normative claims (i.e., injunctive and descriptive norm claims) in advertising and the effectiveness of those advertisements. In relation to the VBN theory, the research has extended the conceptual model of green messages into the context of conventions and social norms in the convention industry. According to its findings, convention attendees' rated injunctive norm claims as being more effective than descriptive ones in promoting their pro-environmental attitudes and intentions. Injunctive norm claims provoke more effortful processes in various settings (Cialdini & Demaine, 2006).

Along similar lines, conventions need to increase their ability to leverage social norms to create business value, which requires a strategic perspective of convention marketing. It is important for convention managers to understand the strategic roles that social norms can play in attracting potential attendees via advertising, particularly given their ability to efficiently and effectively influence behavior in green contexts (Burchell, Rettie, & Patel, 2012). For green marketing in the convention industry, convention organizers should therefore consider applying social norm claims in their advertisements.

From a practical perspective, the research reported here investigated the efficacy of two green message types in the context of conventions: one with verbal claims including visual elements and one with verbal claims excluding such elements. According to its findings, the attention of convention attendees appears to be affected by verbal claims with visual elements,

which indicates that messages with those claims achieved the desired effect (Thørgersen, 2000). Those findings are important for convention marketers who plan to include environment-related messages in their advertising campaigns. Although verbal information is essential to inform convention attendees, visual elements should also be used when marketers want to project a green image for the organization. Thus, green convention organizers are advised to use a combination of green elements in both verbal and visual modes in their advertising, ideally by allowing enough space to both types of elements, which can increase the visibility of their green messages. For examples, green logos and colors can draw attention to the green products and help to generate more positive responses to advertising (e.g., Hartmann & Ibáñez, 2009; Rametsteiner, Pajari, & Peck, 1999).

The research also found that using emotional appeals is more effective than using rational appeals to boost the effectiveness of messages. That finding poses several implications for marketing strategies to improve the effect of promotion in green advertising, in which emotional appeals have already proven effective (Fredrickson, 2001). In particular, the finding suggests that green messages with emotional appeals can promote convention attendees' perceptions (i.e., attitude toward the advertisement, attitude toward the convention, and individual pro-environmental intentions).

### **Limitation and Suggestions for Future Research**

There are some limitations to this study. First, the questionnaire measured participants self-expressed behavioral and purchase intentions but not their actual behaviors or purchases. Actual behavior can differ from self-reported intentions. Because of the comparative nature of the research, however, the difference in intentions and actual behaviors does not significantly



threaten the conclusion that some of the advertisements presented in the survey were more effective than others. Next, participants viewed specific advertisements during data collection. In real life, however, consumers see advertisements only if the advertisements attract their attention. The real success of an advertisement thus depends upon whether it attracts the attention of consumers. Lastly, this study was conducted online via Amazon Mechanical Turk to a general population. Some advertisements for specific target markets might have different outcomes. Additionally, these results may not be generalizable to print advertisements.

As the results suggested, in the future researchers should consider the impact of demographic and psychographic factors on the effectiveness of green marketing messages. For instance, participants could be grouped by demographic factors, including age, gender, ethnicity, education, and motivation to attend events. Consequently, researchers could understand whether those factors impact the effectiveness of eco-marketing. Furthermore, because environmental issues span national boundaries, it is suggested for future research to account for culture. Although researchers have taken preliminary steps to that end, cross-cultural testing of relationships remains in its infancy in marketing research.

Lastly, in the future researchers should consider using various control variables, including pre-existing attitudes, knowledge of the environment, and experience. The reason for using a fictional convention name (i.e., COLUMBUS CONVENTION) was to avoid entangling the impact of messages and participants' familiarity with actual conventions. By controlling for the manipulation, however, researchers could use messages from various actual conventions with their attendees.

## References

- Ajzen, I. (1985). From intentions to actions: A theory of planned of behaviour. In Kuhl J, Beckmann J (eds). *Action-control: From Cognition to Behaviour*. Springer: Heidelberg; 11-39.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting behavior*. Englewood Cliffs: NJ: Prentice-Hall Inc.
- Albers-Miller, N., & Stafford, M. (1999). An international analysis of emotional and rational appeals in services vs. goods advertising. *Journal of Consumer Marketing*, 16(1), 42-57.
- Andreu, L., Casado-Diaz, B., & Mattila, S. (2015). Effects of message appeal and service type in CSR communication strategies. *Journal of Business Research*, 68(7), 1488-1495.
- Aronsson, L. (2000). *The Development of Sustainable Tourism*. Continuum, London and New York: NY.
- Atkinson, L., & Kim, Y. (2015). "I drink it anyway and I know I shouldn't": Understanding green consumers' positive evaluations of norm-violating non-green products and misleading green advertising. *Environmental Communication*, 9(1), 37-57.
- Armitage, C., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology*, 40(4), 471-499.
- Bailey, A. (2005). Non-fulfillment of promotional deals: The impact of gender and company reputation on consumer's perceptions and attitudes. *Journal of Retailing and Consumer Services*, 12(4), 285-295.
- Bamberg, S., & Möser, G. (2007). Twenty years after hines, Hungerford, and tomera: A new meta-analysis of psycho-social determinants of pro-environmental behaviour. *Journal of Environmental Psychology*, 27(1), 14-25.
- Barkemeyer, R., Holt, D., Preuss, L., & Tsang, S. (2014). What happened to the 'development' in sustainable development? Business guidelines two decades after Brundtland. *Sustainable Development*, 22(1), 15-32.
- Berezan, O., Raab, C., Yoo, M., & Love, C. (2013). Sustainable hotel practices and nationality: The impact on guest satisfaction and guest intention to return. *International Journal of Hospitality Management*, 34, 227-233.
- Black, I. (2010). Editorial: Sustainability through anti-consumption. *Journal of Consumer Behaviour*, 9(6), 403-411.

- Brennan, L., & Binny, W. (2010). Fear, guilt, and shame appeals in social marketing. *Journal of Business Research*, 63(2), 140-146.
- Buhrmester, M., Kwang, T., & Gosling, S. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data?. *Perspectives on Psychological Science*, 6(1), 3-5.
- Burchell, K., Rettie, R., & Patel, K. (2012). Marketing social norms: Social marketing and the 'social norm approach'. *Journal of Consumer Behavior*, 12, 1-9.
- Calder, B., & Gruder, C. (1989). *Emotional advertising appeals*. In Cafferata, P. and Tybout, A.M. (Eds), *Cognitive and Affective Responses to Advertising*, Lexington Books, Lexington, MA.
- Carroll, A., & Buchholtz, A. (2012). *Business and society: Ethics and stakeholder management*. Ohio: South-Western Cengage Learning.
- Cerf, M., Frady, P., & Koch, C. (2009). Faces and text attract gaze independent of the task: Experimental data and computer model. *Journal of Vision*, 9(11), 1-15.
- Cha, J., Kim, S., & Cichy, R. (2018). Adoption of sustainable business practices in the private club industry from GMs and COOs' perspective. *International Journal of Hospitality Management*, 68, 1-11.
- Chan, E., Hon, A., Chan, W., & Okumus, F. (2014). What drives employees' intentions to implement green practices in hotels? The role of knowledge, awareness, concern and ecological behavior. *International Journal of Hospitality Management*, 40, 20-28.
- Chandy, R., Tellis, G., Macinnis, D., & Thaivanich, P. (2001). What to say when: advertising appeals in evolving markets. *Journal of Marketing Research*, 38(4), 399-414.
- Choi, G., & Parsa, H. (2006). Green practices II: Measuring restaurant managers' psychological attributes and their willingness to charge for the green practices. *Journal of Foodservice Business Research*, 9(4), 41-63.
- Chou, C., Chen, K., & Wang, Y. (2012). Green practices in the restaurant industry from an innovation adoption perspective: Evidence from Taiwan. *International Journal of Hospitality Management*, 31(3), 703-711.
- Cialdini, R. (2003). Crafting normative messages to protect the environment. *Current Directions in Psychological Science*, 12(4), 105-109.
- Cialdini, R., & Demaine, L. (2006). Managing social norms for persuasive impact. *Social Influence*, 1(1), 3-15.

- Cialdini, R., Kallgren, C., & Reno, R. (1991). A focus theory of normative conduct: A theoretical refinement and reevaluation of the role of norms in human behavior. *Advances in Experimental Social Psychology*, 24, 201-234.
- Cutler, D., & Javalgi, R. (1993). Analysis of print Ad Features: Services vs. products. *Journal of Advertising Research*, 33(2), 62-69.
- Dahl, R. (2010). Greenwashing: Do you know you're buying?. *Environmental Health Perspectives*, 118(6), A246-A252.
- Dangelico, R., & Vocalelli, D. (2017). "Green Marketing": An analysis of definitions, strategy steps, and tools through a systematic review of the literature. *Journal of Cleaner Production*, 165, 1263-1279.
- Davis, J. (1993). Strategies for environmental advertising. *Journal of Consumer Marketing*, 10(2), 19-36.
- Decrop, A. (2007). The influence of message format on the effectiveness of print advertisements for tourism destinations. *International Journal of Advertising*, 26(4), 505-525.
- de Grosbois, D. (2012). Corporate social responsibility reporting by the global hotel industry: Commitment, initiatives and performance. *International Journal of Hospitality Management*, 31(3), 896-905.
- De Groot, J., & Steg, L. (2007). Value orientations and environmental beliefs in five countries: Validity of an instrument to measure egoistic, altruistic and biospheric value orientations. *Journal of Cross-Cultural Psychology*, 38(3), 318-332.
- De Leeuw, A., Valois, P., Ajzen, I., & Schmidt, P. (2015). Using the theory of planned behavior to identify key beliefs underlying pro-environmental behavior in high-school students: Implications for educational interventions. *Journal of Environmental Psychology*, 42, 128-138.
- Dens, N., & De Pelsmacker, P. (2010). Consumer response to different advertising appeals for new products: The moderating influence of branding strategy and product category involvement. *Journal of Brand Management*, 18(1), 50-65.
- Diedring, K. (2008). Framing environmental messages: Examining audience response to humor, shock, and emotional treatments (Master's thesis, University of South Florida).
- DiPietro, R., Cao, Y., & Partlow, C. (2013). Green practices in upscale foodservice operations: Customer perceptions and purchase intentions. *International Journal of Contemporary Hospitality Management*, 25(5), 779-796.

- Do Paco, A., Raposo, M., & Leal Filho, W. (2009). Identifying the green consumer: A segmentation study. *Journal of Targeting, Measurement and Analysis for Marketing*, 17(1), 17-25.
- Dyllick, T., & Hockerts, K. (2002). Beyond the business case for corporate sustainability. *Business strategy and the environment*, 11, 130-141.
- Engardio, P., Capell, K., Carey, J., & Hall, K. (2007). Beyond the green corporation: imagine a world in which eco-friendly and socially responsible practices actually help a company's bottom line. It's closer than you think. *Businessweek*, 29, 50.
- Eligh, J., Welford, R., & Ytterhus, B. (2002). The production of sustainable tourism: Concepts and examples from Norway. *Sustainable Development*, 10(4), 223-234.
- Elkington, J. (1998). Partnerships from cannibals with forks: The triple bottom line of 21st-century business. *Environmental Quality Management*, 8(1), 37-51.
- Elkington, J. (2004). Enter the triple bottom line. In Henriques, A. and Richardson, J. (Eds), *The Triple Bottom Line: Does it All Add up?*. Earthscan, London,
- Feniger, S. (2015). Are you keeping up with current restaurant industry shifts toward sustainability? Retrieved from: <http://conserve.restaurant.org/Community/Videos>.
- Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention, and Behaviour: An Introduction to Theory and Research*. Addison-Wesley: Reading, MA.
- Fong, L., Law, R., Tang, C., & Yap, M. (2016). Experience research in hospitality and tourism: A critical review. *International Journal of Contemporary Hospitality Management*, 28(2), 246-266.
- 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.
- Franca, C., Broman, G., Robert, K., Basile, G., & Trygg, L. (2017). An approach to business model innovation and design for strategic sustainable development. *Journal of Cleaner Production*, 140(1), 155-166.
- Fredrickson, B. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56(3), 218-226.
- Gheorghiu, P., Vidrascu, P., & Niculescu, M. (2013). The development of the eco-marketing, green performance and corporate responsibility in a competitive economy. *Quality (Supplement)*, 373-377.

- Ghosh, M. (2011). Green marketing- A changing concept in changing time. *BVIMR Management Edge*, 4(1), 82-92.
- Gockeritz, S., Schultz, W., Rendon, T., Cialdini, R. Goldstein, N., & Griskevicius, V. (2009). Descriptive normative beliefs and conservation behavior: The moderating roles of personal involvement and injunctive normative beliefs. *European Journal of Social Psychology*, 40, 514-523.
- Goodland, R. (1995). The concept of environmental sustainability. *Annual Review of Ecology and Systematic*, 26, 1-24.
- Green Restaurant Association. (2015). Retrieved from <http://www.greenrestaurant.com>.
- Haanpää, L. (2007). Consumers' green commitment: Indication of a postmodern lifestyle. *International Journal of Consumer Studies*, 31(5), 478-486.
- Hair, J, Anderson, R., Tatham, R, & Black, W. (1998). *Multivariate data analysis with readings*. Prentice Hall, Englewood Cliffs: NJ.
- Han, H. (2014). The norm activation model and theory-broadening: Individuals' decision-making on environmentally-responsible convention attendance. *Journal of Environmental Psychology*, 40, 462-471.
- Han, H., Hsu, L., & Sheu, C. (2010). Application of the theory of planned behavior to green hotel choice: Testing the effect of environmental friendly activities. *Tourism Management*, 31(3), 325-334.
- Han, H., & Hwang, J. (2017). What motivates delegates' conservation behaviors while attending a convention?. *Journal of Travel & Marketing*, 34(1), 82-98.
- Han, H., Hwang, J., Kim, J., & Jung, H. (2015). Guests' pro-environmental decision-making process: Broadening the norm activation framework in a lodging context. *International Journal of Hospitality Management*, 47, 96-107.
- Han, H., Hwang, J., & Lee, S. (2017). Cognitive, affective, and moral triggers of sustainable intentions among convention-goers. *Journal of Environmental Psychology*, 51, 1-13.
- Han, H., & Hyun, S. (2017). Fostering customers' pro-environmental behavior at a museum. *Journal of Sustainable Tourism*, 25(9), 1240-1256.
- Han, H., & Hyun, S. (2018). What influences water conservation and towel reuse practices of hotel guests?. *Tourism Management*, 64, 87-97.
- Han, H., & Kim, Y. (2010). An investigation of green hotel customers' decision formation: Developing an extended model of the theory of planned behavior. *International Journal of Hospitality Management*, 29(4), 659-668.

- Han, H., & Yoon, H. (2015). Customer retention in the eco-friendly hotel sector: Examining the diverse processes of post-purchase decision-making. *Journal of Sustainable Tourism*, 23(7), 1095-1113.
- Hardeman, G, Font, X., & Nawijn, J. (2017). The power of persuasive communication to influence sustainable holiday choices: Appealing to self-benefits and norms. *Tourism Management*, 59, 484-493.
- Hartmann, B., Wiertz, C., & Arnould, E. (2015). Exploring consumptive moments of value-creating practice in online community. *Psychology & Marketing*, 32(3), 319-340.
- Hartmann, P., & Vanessa Apaolaza-Ibáñez. (2010). Beyond savanna: An evolutionary and environmental psychology approach to behavioral effects of nature scenery in green advertising. *Journal of Environmental Psychology*, 30(1), 119-128.
- Hardcastle, A., & Waterman-Hoey, S. (2010). Advanced materials manufacturing, sustainability and workforce development: Pilot study. Washington State University extension energy program. Available online at <http://www.energy.wsu.edu/>
- Hoffman, A., & Georg, S. (2013). A history of research on business and the natural environment: Conversations from the field. In S. Georg & A. Hoffman (Eds.), *Business and the environment: Critical perspectives in business and management* (Vol. 1, pp. 1-58). Oxford, England: Routledge.
- Hongxia, Z, Jin, S., Fang, L., & John, G. (2014). Be rational or be emotional: advertising appeals, service types and consumer responses. *European Journal of Marketing*, 48(11/12), 2105-2126.
- Hoyer, W., & MacInnis, D. (2004). *Consumer behavior.*, New York: NY: Houghton Mifflin.
- Hu, M., Horng, J., Teng, C., & Chou, S. (2013). A criteria model of restaurant energy conservation and carbon reduction in Taiwan. *Journal of Sustainable of Tourism*, 21, 765-779.
- International Trade Centre. (2017). The State of Sustainable Markets 2017: Statistics and emerging trends. Retrieved from: <http://www.intracen.org/publication/The-State-of-Sustainable-Markets-2017-Statistics-and-Emerging-Trends>
- IUCN, UNEP, WWF (International Union for the Conservation of Nature and Natural Resources, United Nations Environment Programme, World Wildlife Fund) (1980). *The World Conservation Strategy: Living resource conservation for sustainable development*, IUCN, Gland, Switzerland.
- Jacobson, R., Mortensen, C., & Cialdini, R. (2011). Bodies obliged and unbound: Differentiated response tendencies for injunctive and descriptive social norms. *Journal Personality and Social Psychology*, 100(3), 433-448.

- Jaeger, S., & MacFie, H. (2001). The effect of advertising format and means-end information on consumer expectations for apples. *Food Quality and Preference*, 12(3), 189-205.
- Jang, Y., Zheng, T., & Bosselman, R. (2017). Top managers' environmental values, leadership, and stakeholder engagement in promoting environmental sustainability in the restaurant industry. *International Journal of Hospitality Management*, 63, 101-111.
- Johanna, Z., & Karin, T. (2016). The role of message strategies in promoting eco-friendly accommodations. *International Journal of Culture, Tourism and Hospitality Research*, 10(4), 410-423.
- Johar, J., & Sirgy, M. (1991). Value-expressive versus utilitarian advertising appeals: When and why to use which appeal. *Journal of Advertising*, 20(3), 23-33.
- Johnstone, M., & Tan, L. (2015). Exploring the gap between consumers' green rhetoric and purchasing behaviour. *Journal of Business Ethics*, 132(2), 311-328.
- Jones, P., Hillier, D., & Comfort, D. (2016). Sustainability in the hospitality industry: Some personal reflections on corporate challenges and research agendas. *International Journal of Contemporary Hospitality Management*, 28(1), 36-67.
- Kerlinger, F., & Lee, H. (2000). Survey Research. In F. N. Kerlinger & H. B. Lee (Eds.), *Foundation of behavioral research*, 4<sup>th</sup> ed., (pp.599-619). Orlando, FL: Harcourt, Inc.
- Kim, S., Kim, K., & Kim, D. (2016). Exploring the effective restaurant CrM ad: The moderating roles of advertising types and social causes. *International Journal of Contemporary Hospitality Management*, 28(11), 2473-2492.
- Kim, S., Lee, K., & Fairhurst, A. (2017). The review of "green" research in hospitality, 2000-2014: Current trends and future research directions. *International Journal of Contemporary Hospitality Management*, 29(1), 226-247.
- Kim, Y., Njite, D., & Hancer, M. (2013). Anticipated emotion in consumers' intentions to select eco-friendly restaurant: Augmenting the theory of planned behavior. *International Journal of Hospitality Management*, 34, 255-262.
- Kilbourne, W. (1995). Green advertising: Salvation or Oxymoron?. *Journal of Advertising*, 24(2), 7-20.
- Kline, R. (2011). *Convergence of structural equation modeling and multilevel modeling*. Thousand Oaks, CA: Sage.
- Kuehl, R. (2000). *Design of experiments: Statistical principles of research design and analysis*. Pacific Grove, CA: Duxbury/Thomson Learning.



- Labuschagne, C., Brent, A., & van Erck, R. (2005). Assessing the sustainability performances of industries. *Journal of Cleaner Production*, 13(4), 373-385.
- Leonidou, L., & Leonidou, C. (2009). Rational versus emotional appeals in newspaper advertising: Copy, art, and layout differences. *Journal of Promotion Management*, 15(4), 522-546.
- Leonidou, L., Leonidou, C., Palihawadana, D., & Hultman, M. (2011). Evaluating the green advertising practices of international firms: a trend analysis. *International Marketing Review*, 28(1), 6-33.
- Line, N., Hanks, L., & Zhang, L. (2016). Sustainability communication: The effect of message construals on consumers' attitudes towards green restaurants. *International Journal of Hospitality Management*, 57, 143-151.
- Liu, S., & Stout, P. (1987). Effects of message modality and appeal on advertising acceptance. *Psychology & Marketing*, 4(3), 167-187.
- Liu, S., Wen, X., Wei, L., & Zhao, W. (2013). Advertising persuasion in China: Using mandarin or Cantonese?. *Journal of Business Research*, 66(12), 2383-2389.
- Lozano, R. (2015). A holistic perspective on corporate sustainability drivers. *Corporate Social Responsibility and Environmental Management*, 22(1), 32-44.
- Luchs, M., Naylor, R., Irwin, J., & Raghunathan, R. (2010). The sustainability liability: Potential negative effects of ethicality on product preference. *Journal of Marketing*, 74(5), 18-31.
- Lwin, M., Phau, I., Huang, Y., & Lim, A. (2014). Examining the moderating role of rational-versus emotional-focused websites: The case of boutique hotels. *Journal of Vacation Marketing*, 20(2), 95-109.
- MacKenzie, S., & Lutz, R. (1989). An empirical examination of the structural antecedents of attitude toward the Ad in an advertising pretesting context. *Journal of Marketing*, 53(2), 48-65.
- Madison Gas Electric (2012). Managing energy costs in hotels and motels. Retrieved from: [https://www.mge.com/saving-energy/business/bea/article\\_detail.htm?nid=1770](https://www.mge.com/saving-energy/business/bea/article_detail.htm?nid=1770).
- Manganari, E., Dimara, E., & Theotokis, A. (2016). Greening the lodging industry: Current status, trends, and perspectives for green value. *Current issues in Tourism*, 19(3), 223-242.
- Mason, W., & Suri, S. (2012). Conducting behavioral research on Amazon's Mechanical Turk. *Behavioral Research Methods*, 44(1), 1-23.

- Matthies, E., Selge, S., & Klockner, C. (2012). The role of parental behaviour for the development of behavior specific environmental norms – The example of recycling and re-use behavior. *Journal of Environmental Psychology*, 32(3), 277-284.
- Matthes, J., Wonneberger, A., & Schmuck, D. (2014). Consumers' green involvement and the persuasive effects of emotional versus functional ads. *Journal of Business Research*, 67(9), 1885-1893.
- Mick, D. (2006). Meaning and mattering through transformative consumer research. *Advances in Consumer Research*, 33(1), 1-4.
- Millar, M., Mayer, K., & Baloglu, S. (2012). Importance of green hotel attributes to business and leisure travelers. *Journal of Hospitality Marketing & Management*, 21(4), 395-413.
- Millar, M., & Baloglu, S. (2011). Hotel guests' preferences for green guest room attributes. *Cornell Hospitality Quarterly*, 52(3), 302-311.
- Milne, M., & Gray, R. (2013). W(h)ither ecology? The triple bottom line, the global reporting initiative, and corporate sustainability reporting. *Journal of Business Ethics*, 118(1), 13-29.
- Mitchell, A., & Olson, J. (1981). Are product attribute beliefs the only mediator of advertising effects on brand attitude?. *Journal of Marketing Research*, 18, 318-332.
- Moore, D. Harris, W., & Chen, H. (1995). Affect intensity: an individual difference response to advertising appeals. *Journal of Consumer Research*, 22(2), 154-164.
- Moriarty, M. (1985). Transfer function analysis of the relationship between advertising and sales: A synthesis of prior research. *Journal of Business Research*, 13(3), 247-257.
- Mowforth, M., & Munt, I. (2009). *Tourism and sustainability: Development, globalization and new tourism in the Third World*. Oxon: Routledge.
- Namkung, Y., & Jang, S. (2017). Are consumers willing to pay more for green practices at restaurants?. *Journal of Hospitality & Tourism Research*, 41(3), 329-356.
- National Restaurant Association (NRA). (2016). Food trends to watch in 2016. Retrieved from: <http://www.restaurant.org/News-Research/News/Food-trends-to-watch-in-2016>.
- Nidumolu, R., Prahalad, C., & Rangaswami, M. (2009). Why sustainability is now the key driver of innovation. *Harvard Business Review*, 87, 57-64.
- Noble, G., Pomeroy, A., & Johnson, W. (2014). Gender and message appeal: Their influence in a pro-environmental social advertising context. *Journal of Social Marketing*, 4(1), 4-21.

- Nolan, J., Schultz, W., & Cialdini, R., Goldstein, N., & Griskevicius, V. (2008). Normative social influence is understood. *Personality Social Psychology Bulletin*, 34(7), 913-923.
- Nunnally, J. (1970). *Introduction to psychological measurement*. New York, NY: McGraw-Hill.
- Nunnally, J. (1978). *Psychometric theory* (2<sup>nd</sup> ed.). New York: McGraw-Hill.
- Oliver, C. (1997). The influence of institutional and task environment relationships on organizational performance: The Canadian construction industry. *Journal of Management Studies*, 34(1), 99-124.
- Onwezen, M., Antonides, G., & Bartels, J. (2013). The norm activation model: An exploration of the functions of anticipated pride and guilt in pro-environmental behaviour. *Journal of Economic Psychology*, 39, 141-153.
- Oreg, S., & Katz-Gerro, T. (2006). Predicting proenvironmental behavior cross-nationally. *Environment and Behavior*, 38(4), 462-483.
- Ottman, J. (1998). *Green Marketing: Opportunity for innovation*. Chicago: NTC Business Books.
- Paivio, A. (1971). *Imagery and verbal processes*. New York: Holt, Rhinehart.
- Park, J., & Kim, H. (2014). Environmental proactivity of hotel operations: Antecedents and the moderating effect of ownership type. *International Journal of Hospitality Management*, 37, 1-10.
- Peattie, K. (1999). Trappings versus substance in the greening of marketing planning. *Journal of Strategic Marketing*, 7, 131-148.
- Pedersen, E., Gwozd, W., & Hvass, K. (2016). Exploring the relationship between business model innovation, corporate sustainability, and organizational values within the fashion industry. *Journal of Business Ethics*, 1-18.
- Pérez, A., & del Bosque, I. (2014). Sustainable development and stakeholder relations management: Exploring sustainability reporting in the hospitality industry from a SD-SRM approach. *International Journal of Hospitality Management*, 42, 174-187.
- Pfanner, E. (2008). Cooling off a dubious eco-friendly claims. *The New York Times*, 18 July, p.3.
- Phillips, B., Miller, J., & McQuarrie, E. (2014). Dreaming out loud on Pinterest. *International Journal of Advertising*, 33(4), 633-655.

- Prud'homme, B., & Raymond, L. (2013). Sustainable development practices in the hospitality industry: An empirical study of their impact on customer satisfaction and intentions. *International Journal of Hospitality Management*, 34, 116-126.
- Puto, C., & William, D. (1984). Information and transformational advertising: The differential effects of time. *Advances in Consumer Research*, 11, 638-643.
- Raab, C., Baloglu, S., & Chen, Y. (2018). Restaurant managers' adoption of sustainable practices: An application of institutional theory and theory of planned behavior. *Journal of Foodservice Business Research*, 21(2), 1-18.
- Reno, R., Cialdini, R., & Kallgren, C. (1993). The transsituational influence of social norms. *Journal of Personality and Social Psychology*, 64(1), 104-112.
- Rivis, A., Sheeran, P., & Armitage, C. (2009). Expanding the affective and normative components of the theory of planned behavior: A meta-analysis of anticipated affect and moral norms. *Journal of Applied Social Psychology*, 39(12), 2985-3019.
- Rodriguez-Anton, J., Alonso-Almeida, M., Celemin, M., & Rubio, L. (2012). Use of different sustainability management systems in the hospitality industry. The case of Spanish hotels. *Journal of Cleaner Production*, 22(1), 76-84.
- Schot, J., & Fishcher, K. (1993). *Environmental strategies for the industry*. Island Press: Washington, DC.
- Schultz, W., Khazian, A., & Zaleski, A. (2008). Using normative social influence to promote conservation among hotel guests. *Social Influence*, 3(1), 4-23.
- Schuhwerk, M., & Lefkoff-Hagius, R. (1995). Green or non-green? Does type of appeal matter when advertising a green product?. *Journal of Advertising*, 24(2), 45-54.
- Shoham, A., & Brencic, M. (2004). Value, price consciousness, and consumption frugality. *Journal of International Consumer Marketing*, 17(1), 55-69.
- Sirakaya-Turk, E., Baloglu, S., & Mercado, H. (2014). The efficacy of sustainability values in predicting travelers' choices for sustainable hospitality businesses. *Cornell Hospitality Quarterly*, 55(1), 115-126.
- Sloan, P., Legrand, W., & Chen, J. (2016). *Sustainability in the hospitality industry – principles of sustainable operations*. Oxon: Routledge.
- Sloan, P., Legrand, W., & Simons-Kaufmann, C. (2014). A survey of social entrepreneurial community-based hospitality and tourism initiatives in developing economies: A new business approach for industry. *Worldwide Hospitality and Tourism Themes*, 6(1), 51-61.

- Smith, J., & Louis, W. (2008). Do as we say and as we do: The interplay of descriptive and injunctive group norms in the attitude-behavior relationship. *British Journal of Social Psychology*, 47(4), 647-666.
- Smith, J., Louis, W., Terry, D., Greenaway, K., Clarke, M., & Cheng, X. (2012). Congruent or conflicted? The impact of injunctive and descriptive norms on environmental intentions. *Journal of Environmental Psychology*, 32(4), 353-361.
- Stafford, M., & Day, E. (1995). Retail services advertising: The effects of appeal, medium, and service. *Journal of Advertising*, 24(1), 57-71.
- Steg, L., Dreijerink, L., & Abrahamse, W. (2005). Factors influencing the acceptability of energy policies: A test of Vbn theory. *Journal of Environmental Psychology*, 4, 415-425.
- Steg, L., & Vlek, C. (2009). Encouraging pro-environmental behavior: An integrative review and research agenda. *Journal of Environmental Psychology*, 29(3), 309-317.
- Stern, P. (2000). Toward a coherent theory of environmentally significant behavior. *Journal of Social Issues*, 56, 407-424.
- Stone, L., & Stone, T. (2011). Community-based tourism enterprises: Challenges and prospects for community participation; Khama Rhino Sanctuary Trust, Botswana. *Journal of Sustainable Tourism*, 19(1), 97-114.
- Stottler, T. (2016). Importance of sustainability in hospitality. Dana communication. Retrieved from: <http://www.danacommunicaitons.com/importance-of-sustainability-in-the-hospitality-indusry/>
- Tellis, G. (2004). *Effective Advertising*. Sage, Thousand Oaks, CA.
- Terrachoice. (2009). Greenwashing affects 98% of products including toys, baby products and cosmetics. Retrieved from: <http://sinsofgreenwashing.com/indexd49f.pdf>.
- Thørgersen, J. (2000). Psychological determinants of paying attention to eco-labels in purchase decision: model development and multinational validation. *Journal of Consumer Policy*, 23(3), 285-313.
- UNCSD (2007). Framing sustainable development: The Brundtland Report – 20 years on. United Nations Commission on Sustainable Development in action background. Retrieved from [http://www.un.org/esa/sustdev/csd/csd15/media/backgrounder\\_brundtland.pdf](http://www.un.org/esa/sustdev/csd/csd15/media/backgrounder_brundtland.pdf).
- van Marrewijk, M. (2003). Concepts and definitions of CSR and corporate sustainability: Between agency and communication. *Journal of Business Ethics*, 44, 95-105.
- Villarino, J., & Font, X. (2015). Sustainability marketing myopia: The lack of persuasiveness in sustainability communication. *Journal of Vacation Marketing*, 21(4), 326-335.

- Walters, G., Sparks, B., & Herington, C. (2007). The effectiveness of print advertising stimuli in evoking elaborate consumption visions for potential travelers. *Journal of Travel Research*, 46, 24-34.
- Wang, Y., Chen, S., Lee, Y., Tsai, C. (2013). Developing green management standards for restaurants: An application of green supply chain management. *International Journal of Hospitality Management*, 34, 263-273.
- Wang, S., Kirillova, K., & Lehto, X. (2017). Reconciling unsatisfying tourism experiences: Message type effectiveness and the role of counterfactual thinking. *Tourism Management*, 60, 233-243.
- Wells, W., Leavitt, C., & McConville, M. (1971). A reaction profile for TV commercials. *Journal of Advertising Research*, 11(6), 11-18.
- White, K., & Simpson, B. (2013). When Do (and Don't) normative appeals influence sustainable consumer behaviors?. *Journal of Marketing*, 77(2), 78-95.
- World Commission on Environment and Development (1987). *Our Common Future*. Oxford University Press: Oxford.
- Wu, H., Cheng, C., & Ai, C. (2017). An empirical analysis of green switching intentions in the airline industry. *Journal of Environmental Planning and Management*, 1-31.
- Wu, H., Cheng, C., & Hong, W. (2017). An empirical analysis of green convention attendees' switching intentions. *Journal of Convention & Event Tourism*, 18(3), 159-190.
- Xue, F. (2014). It looks green: Effects of green visuals in advertising on Chinese consumers' brand perception. *Journal of International Consumer Marketing*, 26(1), 75-86.
- Xue, F., & Muralidharan, S. (2015). A Green picture is worth a thousand words?: Effects of visual and textual environmental appeals in advertising and the moderating role of product involvement. *Journal of Promotion Management*, 21(1), 82-106.
- Yi, Y. (1990). Cognitive and affective priming effects of the context attractiveness for print advertisements. *Journal of Advertising*, 19(2), 40-48.
- Yoo, C., & MacInnis, D. (2005). The brand attitude formation process of emotional and information ads. *Journal of Business Research*, 58(10), 1397-1406.
- Zanon, J., & Teichmann, K. (2016). The role of message strategies in promoting eco-friendly accommodations. *International Journal of Culture, Tourism, and Hospitality Research*, 10(4), 410-423.

- Zhang, J., Joglekar, N., & Verman, R. (2012). Pushing the frontier of sustainable service operations management: Evidence from US hospitality industry. *Journal of Service Management*, 23(3), 377-399.
- Zhang, H., Sun, J, Liu, F., & Knight, J. (2014). Be rational or be emotional: Advertising appeals, service types and consumer responses. *European Journal of Marketing*, 48(11/12), 2105-2126.
- Zhang, Y., Zheng, T., & Bosselman, R. (2017). Top managers' environmental values, leadership, and stakeholder engagement in promoting environmental sustainability in the restaurant industry. *International Journal of Hospitality Management*, 63, 101-111.
- Zinkhan, G., & Carlson, L. (1995). Green advertising and the reluctant consumer. *Journal of Advertising*, 24(2), 1-6.
- Zinn, H., & Manfredi, M. (2000). An experimental test of rational and emotional appeals about a recreation issue. *Leisure Sciences*, 22(3), 183-194.
- Zuckerman, M. (1994). *Behavioral expressions and biosocial bases of sensation seeking*. New York: Cambridge university press.

## **Appendix A- Survey Questionnaire**



## **Convention Marketing Survey**

We would like to hear about your convention experiences. The purpose of this evaluation is to investigate conference marketing variables. These survey results will be used in a research study. This study will take 10-15 minutes of your time. Your participation in this evaluation is voluntary and can be terminated at any time. All information gathered in this survey will be kept completely anonymous and confidential. You will receive benefits from Amazon Turk if you are eligible and complete this survey. Risk for this survey is minimal. If you have any questions or concerns, you may contact Woohyuk Kim at woohyuk@ksu.edu or the principal investigator Kristin Malek at kristinmalek@ksu.edu. Concerns can also be addressed to the Kansas State University Institutional Review Board at comply@ksu.edu.

### **Introductory Questions**

1. How old are you?
  - a. Under 18
  - b. 18-24
  - c. 25-34
  - d. 35-44
  - e. 45-54
  - f. 55-64
  - g. 65-74
  - h. 75-84
  - i. 85 or older
  
2. Which of the following best describes your work situation?
  - a. Full-time employee at this company for more than a year
  - b. Full-time employee at this company for less than a year
  - c. Part-time employee
  - d. Independent business
  - e. Stay at home parent
  - f. Student
  - g. Unemployed
  
3. Which of the following best describes your position?
  - a. Upper-level management
  - b. Lower-level management
  - c. Frontline employee
  - d. Owner/Partner
  - e. Independent Contractor

4. How many times have you attended a **convention** with at least 100 people in the past year?

**Convention:** Gathering of delegates, representatives, and members of a membership or industry organization convened for a common purpose. Common features include educational sessions, committee meetings, social functions, and meetings to conduct the governance business of the organization. Conventions are typically recurring events with specific, established timing.

- a. 0
- b. 1
- c. 2
- d. 3
- e. 4
- f. More than four

**Thank you for agreeing to take this survey. On the next page you will see an advertisement. Please read the ad in the way you would if you came across it while reading a newspaper or magazine that pertains to your area of interest. You can spend as much time as you want viewing the ad, but will not be able to go back to the ad once you proceed forward in the survey. You will not be tested on whether you recall any specific facts from the ad. The questions that follow will ask about your impression of the ad. These are all personal opinion questions and therefore there is no “right” or “wrong” answer.**

**Section A**

Please rate the previous **advertisement** by selecting the option that you agree with most.

This advertisement is...

Bad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Good
Unpleasant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Pleasant
Unfavorable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Favorable
Not convincing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Convincing
Believable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Unbelievable
Very complex	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Not complex
Very dense	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Not dense
Very interactive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Not interactive
With lots of variety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	With no variety

**Section B**

Please rate the previous advertisement by selecting the option that you agree with most as it relates to the **convention** itself.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
In your opinion, this convention would be of good quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In your opinion, this convention would be favorable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would be willing to attend this convention in the future	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would plan to attend this convention in the future	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would expand efforts to attend this convention in the future	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Section C

The next time I attend a convention...

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I will try to save water and electricity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will avoid using disposable products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will actively follow the convention's environmental code of conduct	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will expend effort on disposing of garbage and recycling properly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will actively practice environmentally responsible activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## **Section D**

Please read the following statements carefully and select the number that best reflects your opinion.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I am concerned about the environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The condition of the environment affects the quality of my life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am willing to make sacrifices to protect the environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My actions impact the environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## **Section E – Demographic Information**

This information will be used for research purposes only and will not be shared with any entity.

1. Gender:
  - a. Male
  - b. Female
  - c. Prefer not to answer
  
2. Highest completed education level?
  - a. Some school
  - b. High school
  - c. Associates degree (2 years)
  - d. Bachelor's degree (4 years)
  - e. Master's degree
  - f. Doctorate/Professional/Graduate degree (MD, DO, Ph.D., JD)
  
3. What is your household income?
  - a. \$35,000 or less
  - b. \$35,001- \$55,000
  - c. \$55,001- \$75,000
  - d. \$75,001 - \$95,000
  - e. More than \$95,000
  - f. Prefer not to answer
  
4. Which ethnicity describes you most accurately?
  - a. African American
  - b. Hispanic-Latino
  - c. Caucasian
  - d. Asian American
  - e. Bi-/multi-racial
  - f. Prefer not to answer
  - g. Other, Please Specify. \_\_\_\_\_

*Thank you for your participation. We appreciate your time and effort.*

## **Appendix B. Advertisements (8 conditions)**



## 1. Verbal claims including visuals, rational, injunctive

**COLUMBUS CONVENTION**

Whether you are planning a corporate meeting, conference or convention, visit convention COLUMBUS will go the extra mile for you to make planning your event as simple as possible.

- ◆ Our convention initiatives focus on sustainability practices that maintain natural resources in the long-term by recycling and reusing materials.
- ◆ Our convention attendees approve of those who do practice sustainability while at the convention, such as energy and water conservation.

Call: 1-888-8888  
Website: [conventioncenterCOLUMBUS.com](http://conventioncenterCOLUMBUS.com)  
Email: [info@conventioncenterCOLUMBUS.com](mailto:info@conventioncenterCOLUMBUS.com)

**GET THE BEST VALUE FOR YOUR MEETING NEEDS!**

## 2. Verbal claims including visuals, rational, descriptive

**COLUMBUS CONVENTION**

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### 3. Verbal claims including visuals, emotional, injunctive

**COLUMBUS CONVENTION**

Whether you are planning a corporate meeting, conference or convention, visit convention COLUMBUS will go the extra mile for you to make planning your event as simple as possible.

- ◆ Our convention encourages your customers, employees, and others partners to take a thoughtful approach toward the environment.
- ◆ Our convention attendees approve of those who do practice sustainability while at the convention, such as energy and water conservation.

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## 6. Verbal claims excluding visuals, rational, descriptive

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## 8. Verbal claims including visuals, emotional, descriptive



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## Appendix C. IRB



University Research Compliance Office

TO: Dr. Kristin Malek  
Hospitality Management  
107 Justin Hall

Proposal Number: 9135

FROM: Rick Scheidt, Chair  
Committee on Research Involving Human Subjects

DATE: 02/07/2018

RE: Proposal Entitled, "Exploring the effects of green marketing messages in hospitality"

The Committee on Research Involving Human Subjects / Institutional Review Board (IRB) for Kansas State University has reviewed the proposal identified above and has determined that it is EXEMPT from further IRB review. This exemption applies only to the proposal - as written - and currently on file with the IRB. Any change potentially affecting human subjects must be approved by the IRB prior to implementation and may disqualify the proposal from exemption.

Based upon information provided to the IRB, this activity is exempt under the criteria set forth in the Federal Policy for the Protection of Human Subjects, **45 CFR §46.101, paragraph b, category: 2, subsection: ii.**

Certain research is exempt from the requirements of HHS/OHRP regulations. A determination that research is exempt does not imply that investigators have no ethical responsibilities to subjects in such research; it means only that the regulatory requirements related to IRB review, informed consent, and assurance of compliance do not apply to the research.

Any unanticipated problems involving risk to subjects or to others must be reported immediately to the Chair of the Committee on Research Involving Human Subjects, the University Research Compliance Office, and if the subjects are KSU students, to the Director of the Student Health Center.