INFLUENCES ON CONSUMER SATISFACTION IN GREEN HOTELS:
PERCEPTIONS OF WARMTH, COMPETENCE, AND CSR MOTIVE

A Thesis in
Hotel, Restaurant and Institutional Management

by
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ABSTRACT

Research on consumer satisfaction with green hotels has yielded mixed results; some studies have shown a positive relationship with CSR initiatives and others have shown a negative relationship. To reconcile these two opposing views, I examine the mediating effects of perceived warmth and competence as potential psychological mechanisms explaining consumers’ reactions to green hotels. I also investigate the moderating role of firm motives in influencing consumers’ reactions to green initiatives. Results from Study 1 indicate that when service delivery is successful, consumer satisfaction is higher for green (vs. non-green) hotels. However, the advantage for green hotels disappears when guests experience service failures. Results from Study 2 show that consumer satisfaction with green hotels is enhanced when a firm engages in green initiatives for public-serving (vs. self-serving) motives. Overall, the results show that perceived warmth and competence mediate the relationship between service outcomes and consumer satisfaction.
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Chapter 1
Introduction

The hospitality industry has become increasingly involved in corporate social responsibility (CSR) in recent years. Many hotels have implemented numerous CSR initiatives to serve local communities, improve employees’ well-being, and conserve the environment (Bohdanowicz & Zientara, 2009; Lee & Heo, 2009). Being viewed as a green hotel is often a desired outcome of a hotel’s CSR strategy. By participating in green certification programs, such as LEED (Leadership in Energy and Environmental Design), hotels intend to “promote and practice energy efficiency, conservation, and recycling, while at the same time providing hotel consumers with a sustainable, clean, and healthy product” (Millar & Baloglu, 2011).

However, the impact of being green on consumer satisfaction is equivocal. One literature stream shows that green initiatives lead to greater consumer satisfaction (Lee & Heo, 2009; Luo & Bhattacharya, 2006) and return intentions (Berezan, Raab, Yoo & Love, 2013). On the other hand, Robinot and Giannelloni (2010) and Carbon Trust (2011) have suggested that hotels should not inform consumers about their environmental initiatives, because consumers doubt their efficacy and therefore, lower their evaluations. Chong and Verma (2013) also recently found that no booking advantage is gained by going green; while green programs might attract consumers who support such efforts, other consumers might worry that their comfort will be sacrificed at hotels that cut back
on resources. Therefore, promoting an environmentally friendly image while avoiding accusations of “green washing” is a key challenge faced by hotels with CSR programs (Chan, 2013; Chun & Giebelhausen, 2012).

In the present research, I attempt to shed light on this paradox by introducing the concepts of perceived warmth and competence, which are critical to understanding how consumers perceive green hotels. Abundant research in social psychology (i.e., Asch, 1946; Lydon, Jamieson, & Zanna, 1988; Rosenberg, Nelson, & Vivekananthan, 1968; Wojciszke, Bazinska, & Jaworski, 1998) and organizational behavior (Cuddy, Glick, & Beninger, 2011) has shown that people judge others on the dimensions of warmth (i.e., good-naturedness, trustworthiness, tolerance, friendliness, and sincerity) and competence (i.e., capability, skillfulness, intelligence, and confidence) (Fiske, Cuddy, & Glick, 2007). In this study, we propose that these two dimensions are the underlying mechanisms explaining consumer satisfaction in the context of two service outcomes at green hotels: successful service delivery and service failure.

According to attribution theory (Kelley, 1976), consumers are likely to make inferences about a firm’s motives for engaging in CSR. Previous research has uncovered two primary types of motives: self-serving (e.g., to increase profits, sales or the profile of a specific brand) and public-serving (e.g., to assist with community development or raise awareness for a specific cause) (Becker-Olsen, Cudmore, & Hill, 2006; Ellen, Webb, & Mohr, 2006; Vlachos, Tsamakos, Vrechopoulos, & Avramidis, 2009). These two motives
significantly influence consumers’ attitudes, purchase intentions, and word of mouth (Becker-Olsen et al., 2006; Kang et al., 2012; Vlachos et al., 2009).

In this study, we propose that perceived firm motive will moderate the relationship between service outcomes and consumer satisfaction in green hotels. The findings of this study will help hotel managers who engage in green initiatives to understand the influence of perceived warmth, competence, and firm motive on consumer satisfaction. In the following sections, we present relevant theoretical background and develop our hypotheses. I then describe experimental designs, data analysis techniques and results. Finally, we discuss conclusions, implications, and limitations of the study.
Chapter 2

Theoretical Background

Consumer Satisfaction in Hotels

Satisfaction is a multi-dimensional construct, and cognition and affect are the key determinants of consumer satisfaction/dissatisfaction (Oliver, 1993). Ample evidence shows that CSR has a positive impact on consumer satisfaction (i.e., Eisingerich, Rubera, Seifert, & Bhardwaj, 2011; Lee & Heo, 2009; Luo & Bhattacharya, 2006). However, Robinot and Giannelloni (2010) argued that hotels should not inform consumers about their environmental initiatives because consumers may doubt the efficacy of such programs. So, how can we reconcile these contradictory findings?

In a hotel context, the social servicescape (i.e., interactions with employees) and physical servicescape (i.e., building, landscape and interior facilities) drive consumer satisfaction (Bitner, 1992; Zeithaml, Bitner, & Gremler, 2006). While core attributes of hospitality services (e.g., providing a bed for the night) reflect functional performance, green practices may satisfy consumers’ psychological or emotional needs (Christy, Oliver, & Penn, 1996; Kang, Stein, Heo, & Lee, 2012; Sen & Bhattacharya, 2001). For instance, consumers who purchase green products or services might experience feelings of well-being when they behave altruistically, and gain a sense of moral satisfaction when they contribute to society’s welfare (Hartmann & Ibanez, 2006). Similarly, according to the warm-glow model, individuals who contribute to the public good through environmental protection also report higher levels of life satisfaction and happiness (Andreoni, 1989; Videras & Owen, 2006). These results align with Handelman and Arnold’s (1999) findings that CSR is a moderating factor in consumers’ evaluations of companies.
However, environmental practices are not part of a hotel’s core services or core competencies (Kang et al., 2012; Kasim, 2004). Evidence suggests that the positive effect of CSR is limited to situations in which corporate performance is acceptable (Handelman & Arnold, 1999). That is, green practices are “nonessential attributes” that deliver secondary benefits (Manaktola & Jauhari, 2007). Service quality is the main determinant of consumer satisfaction, regardless of whether the hotel is green or not (Eisingerich et al., 2011; Vlachos et al., 2009; Zeithaml, Bitner, & Gremler, 2006). Since being green might have additive effects on consumer satisfaction, such as making people feel more socially responsible, green initiatives may increase consumers’ positive emotions (Hu, Fu, & Wang, 2011; Sen & Bhattacharya, 2001) when they experience satisfactory service. However, in cases involving service failure, these benefits are greatly diminished because the positive effect of CSR on consumer satisfaction occurs only when environmental initiatives are unrelated to a company’s core service (Eisingerich et al., 2011). Therefore, we propose that:

**H1:** Hotel type (i.e., green/non-green) will moderate the impact of service outcomes (i.e., service success/failure) on consumer satisfaction.

Specifically:

**H1a:** When service delivery is successful, consumers will be more satisfied in green hotels than in non-green hotels.

However:
**H1b:** When there are service failures, consumers will be equally dissatisfied across the two hotel types (green and non-green).

Emotional warmth has been studied in a number of contexts (Bush, 1972) and it is a significant driver of consumer satisfaction, loyalty and retention (Rust & Zahorik, 1993). Warmth judgments are formed automatically, and they have an important impact on consumers’ subsequent attitudes (Cuddy, Glick, & Beninger, 2011). Perceived warmth is particularly important in the services context, as such judgments are highly linked to consumers’ perceptions of how friendly and caring employees are (Mittal & Lassar, 1996; Stauss, 2002). Moreover, perceived warmth is linked to likeability and perceived service quality (Lemmink & Mattsson, 2002). In service settings, consumers typically interact with capable, friendly, and helpful (i.e., warm) employees (Parasuraman et al., 1988: SERVQUAL). Conversely, when service failures occur, consumers perceive employees to be unconcerned and uncaring (i.e., cold). Obviously, consumers perceive more warmth in successful service encounters than in failed service encounters.

However, the notion of warmth has received scant attention in the CSR research. Aaker, Vohs, and Mogilner (2010) found that consumers perceive non-profit firms as being warmer than for-profit firms because non-profits show more commitment to the social good. Du, Bhattacharya, and Sen (2010) suggested that warm feelings may contribute to the effectiveness of a firm’s CSR communication; such feelings induce cognitive responses of trustworthiness and affective responses of empathy.

It has been well documented that service outcomes such as service smoothness and employee friendliness and helpfulness are the primary determinants of perceived warmth
In this paper, we suggest that CSR initiatives positively influence perceptions of warmth. In general, green hotels are perceived as being environmentally conscientious (i.e., warm, friendly, caring) (Millar & Baloglu, 2008) while non-green hotels can be perceived as being environmentally unfriendly, indifferent and wasteful (i.e., cold) (Lichtenstein et al., 2004; Sen & Bhattacharya, 2001). Consumers who purchase environmentally friendly products derive high personal satisfaction from not only the performance of green products, but also the knowledge that they are not harming the environment (Leonidou, Leonidou, & Kvasova, 2010). Therefore, based on the warm-glow model (Andreoni, 1989) consumers who stay in green hotels should perceive high levels of utility (such as warmth) and hence feel more satisfied (Videras & Owen, 2006). However, these factors that augment perceptions of warmth in green hotels are not present in non-green hotels. Thus, we propose that:

**H2**: Perceived warmth mediates the relationship between service outcomes and consumer satisfaction across two hotel types (green/non-green).

Prior research has demonstrated that perceived warmth might enhance service encounter satisfaction if an employee is perceived as competent (Grandey, Fisk, Mattila, Jansen, & Sideman, 2005). Competence also seems to drive product quality perceptions (Aaker, Vohs, & Mogilner, 2010; Goldsmith, Lafferty, & Newell, 2000).

Although warmth judgments are instantaneous, competence judgments require a secondary consideration of whether the warmth (or its absence) is accompanied by capability (Cuddy, Glick, & Beninger, 2011). Competence judgments reflect consumers’ perceptions of confidence, effectiveness, intelligence, capability, skillfulness, and competitiveness (Grandey et
Perceived competence has been linked to enhanced trust, stronger consumer/service provider relationships, and lower likelihood of stability attributions in the context of service failures (Coulter & Coulter, 2002; Wirtz & Mattila, 2004). Werther and Chandler (2010) argued that integrating CSR as a core strategic competence will create competitive advantage for a firm.

Handelman and Arnold (1999) investigated the effects of CSR on consumer evaluations of corporate abilities, expertise and competency. By embracing LEED-certified green technology and utilizing the newest equipment, materials, and techniques (e.g., using compact fluorescent light bulbs in guest rooms and low-flow shower systems that inject air to simulate ample water flow), hotels signal a high level of competency (Butler, 2008), and in turn increase consumer satisfaction. Since non-green hotels do not engage in these practices, they do not benefit from potential increases in consumers’ perceptions of competence.

In the context of a service failure, however, benefits related to perceived competence in green hotels are negated. Unlike “nonessential green attributes” (Manaktola & Jauhari, 2007), service outcomes are the key determinants of consumer satisfaction (Eisingerich et al., 2011; Zeithaml, Bitner, & Gremler, 2006). Thus, we propose that:

**H3:** Perceived competence mediates the relationship between service outcomes and consumer satisfaction across two hotel types (green/non-green).
Perceived Motives of Green Initiatives

When consumers evaluate a hotel’s green initiatives, they may try to infer the firm’s motivation for engaging in CSR. Perceived corporate motive (self-serving vs. public-serving) has significant impact on consumers’ perceptions of CSR initiatives (Becker-Olsen, Cudmore, & Hill, 2006). For example, Ellen et al. (2006) categorized consumers’ attributions of CSR into self-centered motives (i.e., strategic and egoistic), and other-centered motives (i.e., driven by corporate values and stakeholders). In their study, consumers responded positively to CSR efforts that were strategic and values-driven, while egoistic initiatives were perceived negatively.

Accordingly, research has shown that perceived firm motives influence consumers’ responses to cause-related marketing efforts (Barone, Miyazaki, & Taylor, 2000). For example, Blair and Chernev (2012) demonstrated that a perceived self-interest motive attenuates the positive effect of social goodwill. Self-serving motives have a negative impact on perceived warmth and competence (Cuddy, Glick, & Beninger, 2011), evaluations of a company’s CSR efforts (Vlachos et al., 2009), attitudes towards a company (Becker-Olsen et al., 2006) and consumers’ willingness to pay for green initiatives (Kang et al., 2012).
According to Vlachos et al. (2009), firms that provide high levels of service quality counteract the negative effects of self-serving motive attributions, because when satisfactory services are provided, consumers care less about the motivations underlying CSR. In other words, consumers are more likely to engage in compensatory processing for negative CSR attributions when they receive satisfying services (Berens, van Riel, & van Rekom, 2007). Conversely, consumers’ attributional processes are heightened in service failure situations (Vlachos et al., 2009); hence self-serving motives generate more negative perceptions than public-serving motives (Luo & Bhattacharya, 2006). The logic for this argument is that CSR is not a core attribute of a hotel’s service offering (Eisingerich et al., 2011; Kang et al., 2012; Kasim, 2004), and service quality provision is more personally relevant than CSR for consumers. The former relates to satisfaction of lower-order physiological needs, whereas the latter reflects satisfaction of higher-order self-enhancement needs (Vlachos et al., 2009). Therefore, hotels with CSR programs that are perceived as having self-serving motives are especially disadvantaged when they perform poorly on core attributes; however, when satisfactory service is provided, compensatory processing leads to fewer satisfaction differences among consumers.

**H4:** Perceived motives (public-serving/self-serving) will moderate the impact of service outcomes (service success/failure) on consumer satisfaction. Consumers will be more satisfied when they perceive a firm’s motive as public-serving (vs. self-serving), regardless of the service outcome; the magnitude of the difference is heightened in a service failure condition.

As discussed in section 2.1, perceived warmth and perceived competence play important roles in consumers’ perceptions of environmental initiatives in green hotels. Is the mediating
effect of perceived warmth and competence the same for green hotels when different motives for CSR are perceived by consumers?

Cuddy, Glick, and Beninger, (2011) suggested that warmth judgments affect the extent to which people trust or doubt others’ motives, whereas competence judgments influence assessments of others’ abilities to effectively act on their motives. Aaker, Vohs, and Mogilner (2010) argued that non-profit organizations are judged to be warmer than for-profit firms because people perceive non-financial motives. Society-serving motives reflect altruism, generosity, and philanthropy, all of which are warmth traits (Aaker et al., 2010; Lii & Lee, 2012; Nan & Heo, 2007). In the context of green hotels, consumers are likely to make inferences about a firm’s motives (Kelley, 1976). When consumers perceive that a firm’s green initiatives reflect society-serving intentions, positive feelings towards the company will increase, along with purchase intentions (Aaker et al., 2010). Likewise, when public-serving motives are perceived, higher competence is signaled, in that a company is able to take care of not only its core business, but the environment as well (Becker-Olsen et al., 2006). Thus, we propose:

**H5:** Perceived warmth mediates the relationship between service outcomes and consumer satisfaction across two firm’s perceived motives (self-serving/public-serving).

**H6:** Perceived competence mediates the relationship between service outcomes and consumer satisfaction across two firm’s perceived motives (self-serving/public-serving).
Figure 1-2. Conceptual Model for Study 2
Chapter 3

Research Design

Pretest and Pilot Studies

We conducted one pretest and two pilot studies with a total of 156 undergraduate students (N_{pretest}=49, N_{pilot study1}=75, N_{pilot study2}=32). We adapted service failure scenarios from Smith, Bolton, and Wagner (1999), and based green hotel scenarios on attributes suggested by Millar and Baloglu (2011). All measurement scales and scenarios are provided in Appendixes.

In the pretest, participants were asked to rate their level of agreement (1 = strongly disagree; 7 = strongly agree) with statements (e.g., I believe Hotel XYZ is a green hotel; I believe hotel XYZ is a non-green hotel). Only 3 out of 49 students failed to perceive the green hotel description as reflecting green practices.

We further tested the effectiveness of our scenarios on a different group of 75 undergraduate students by exposing each student to one of the four scenarios (service success vs. service failure, green hotel vs. non-green hotel). In addition to the green hotel question, participants were asked to rate the hotel in terms of perceived warmth and competence based on Aaker, Vohs, and Mogilner (2010) (e.g., To what extent do you believe that Hotel XYZ is warm (cold)/friendly (unfriendly); competent (incompetent)/capable (incapable)?). We measured satisfaction using scales from Oliver (2010). In a successful delivery condition, participants were marginally more satisfied when the hotel was green vs. non-green (M_{green} = 4.95 vs. M_{non-green} = 4.31; F (1, 35) =
 Conversely, in a service failure condition, hotel type failed to influence guest satisfaction ($M_{\text{green}} = 3.49$ vs. $M_{\text{non-green}} = 3.29$; ($F (1, 36) =0.268, p=0.608$).

In the final pretest, we tested the manipulations for firm motives with 32 undergraduate students. The scenarios were adapted from Butler (2008) and Aaker, Vohs, and Mogilner (2010). For the self-serving motive, the hotel’s green program was described as saving energy and achieving economic savings, while for the public-serving motive, the hotel’s green program was described as helping people and the planet. Two questions adapted from Becker-Olsen et al. (2006) were used to measure firm motivation (e.g., *Determine your perceived motivation of Hotel XYZ for participation in the green programs: 1= self-interested/7= environment interested, 1= profit motivated/7= socially motivated*). The results from an ANOVA table revealed that in the successful outcome condition, consumer satisfaction was enhanced when the firm motive was perceived as public-serving ($M_{\text{self-serving}} = 4.776$ vs. $M_{\text{public-serving}} =6.143$; $F (1, 11) = 6.731$, $p=0.025$). However, the difference in satisfaction scores was insignificant in the failure condition ($M_{\text{self-serving}} = 3.492$ vs. $M_{\text{public-serving}} =3.400$; $F (1, 17) =0.021$, $p=0.887$) due to small sample size.
Main Study 1

The purpose of Study 1 was to provide initial causal evidence for the relationships between service outcomes and perceived warmth and competence in green hotels and non-green hotels.

Method

We employed a 2 (service outcome: service success/service failure) X 2 (hotel type: green/non-green) between-subjects design. Data were collected from an online consumer panel with 183 participants who were randomly assigned to one of the four experimental conditions; 158 finished the survey with no overlapping. Among participants who completed the survey, 45% were female, 88% were aged 20-59 years, 80% were Caucasian, 85% held a degree higher than high school, 66% had household incomes more than $30,000, and 68% stayed at hotels more than once a year.

After reading the experimental stimuli, participants were asked to rate perceived warmth and competence (Aaker, Vohs, & Mogilner, 2010) as well as satisfaction (Oliver, 2010). Demographic information was captured at the end of the questionnaire. We performed scale reliability checks, which are provided in Appendix 3.

Manipulation checks were included to assess whether the study participants properly interpreted our scenarios. Significant differences were observed for service outcomes (e.g., Referring back to the check-in scenario you have read, do you think your experience at Hotel XYZ was bad/good? 1=Bad; 7=Good) (M_{success}=5.493 vs. M_{failure}=2.506; F_{1, 156}=225.357, p=0.000)
and hotel type (e.g., *I believe Hotel XYZ is a green hotel. 1=Strongly disagree; 7= Strongly agree*)

\( \bar{M}_{\text{green}}=6.00 \) vs. \( \bar{M}_{\text{non-green}}=1.90 \); \( F_{1, 156} = 409.999, p=0.000 \).

**Analysis and Results**

**The Moderating Effect of Hotel Type**

An ANOVA of satisfaction revealed significant main effects related to service outcome (success/failure) \( (F (1, 154) = 166.151, p=0.000) \) and hotel type (green/non-green) \( (F (1, 154) = 37.146, p=0.000) \), but these main effects were qualified by a significant interaction effect \( (F (1, 154) = 16.952, p=0.000) \). As shown in Figure 2-1, in a successful delivery condition, participants were more satisfied when the hotel was a green hotel vs. a non-green hotel \( (\bar{M}_{\text{green}} = 5.957 \) vs. \( \bar{M}_{\text{non-green}} = 4.082; F (1, 69) = 62.302, p=0.000) \). Conversely, in a service failure condition, hotel type failed to influence satisfaction \( (\bar{M}_{\text{green}} = 2.834 \) vs. \( \bar{M}_{\text{non-green}} = 2.471; F (1, 85) =1.848, p=0.178) \). Taken together, these results support H1a and H1b.

Table 3-1. ANOVA Output for Moderation Effect of Hotel Type
### Tests of Between-Subjects Effects

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<th>F</th>
<th>Sig.</th>
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<td>83.038</td>
<td>.000</td>
<td>.618</td>
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<td>.919</td>
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<tr>
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a. R Squared = .618 (Adjusted R Squared = .611)

Figure 2-1. Interaction of hotel type and service outcomes.
As Figure 1-1 depicts, we propose a case of moderated mediation, in which hotel type moderates the effect of service outcome on perceived warmth and competence (the mediators), which in turn influence satisfaction (Hayes, 2013, Model 7). Using the mediator model, we examined the effects of service outcome, hotel type, and their interaction on perceived warmth; the interaction is significant (b= 0.4973, p=0.004), which suggests that the indirect effect of service outcome through perceived warmth varies as a function of hotel type. Using the dependent variable model, we examined the effects of perceived warmth and service outcome on satisfaction and found that perceived warmth has a significant effect on satisfaction (b= 0.7787, p= 0.000). Using the recommended bootstrapping technique to test conditional indirect effects (sample size of 5,000 for the bias corrected bootstrap confidence intervals), we found that the conditional indirect effect of service outcome on satisfaction through perceived warmth is significant for both green hotels (95% confidence interval [CI] =1.5160 to 2.2771), and non-green hotels (95% CI = 0.6947 to 1.5582).

Similarly, using the mediator model, we examined the effects of service outcome, hotel type, and their interaction on perceived competence. The interaction is significant (b= 0.7146, p=0.0001), which suggests that the indirect effect of service outcome through perceived competence varies as a function of hotel type. Using the dependent variable model, we examined the effects of perceived competence and service outcome on satisfaction. The effect of perceived competence on satisfaction (b= 0.7698, p= 0.0000) is significant. Using the recommended bootstrapping technique to test conditional indirect effects (sample size of 5,000 for bias corrected bootstrap confidence intervals), we found that the conditional indirect effect of service
outcome on satisfaction through perceived competence is significant for both green hotels (95% CI = 1.7586 to 2.8196) and non-green hotels (95% CI = 0.6721 to 1.7094).

These results support mediation by both perceived warmth and perceived competence (Hayes, 2013). In other words, H2 and H3 are supported. Table outputs are provided in Appendix 4.

Main Study 2

The results of Study 1 show that hotel type (green vs. non-green) moderates consumer satisfaction (H1 supported) and that the proposed underlying mechanisms of perceived warmth and perceived competence mediate consumer satisfaction (H2 and H3 supported). To verify these important findings, we designed Study 2 to replicate the mediation effect while manipulating the firm motive for engaging in CSR (self-serving vs. public-serving).

Method

We collected data from an online panel of 225 participants who were randomly assigned to one of the four experimental conditions (service success vs. service failure/self-serving vs. public-serving motive, all in green hotels). After cleaning the data, the final sample consisted of 185
participants: 40% were female, 94% were aged 20-59 years, 76% were Caucasian, 99.5% held a degree higher than high school, 56% had household incomes of more than $30,000, and 70% stayed at hotels more than once a year.

After reading the scenarios, participants were asked to answer the two perceived motivation questions (Olsen et al., 2006) (1=self-interested/7=environment interested; 1=profit motivated/7=socially motivated) along with questions about perceived warmth and competence (Aaker, Vohs, & Mogilner, 2010) and satisfaction (Oliver, 2010). At the end of the questionnaire, demographic information was collected. We also conducted scale reliability checks.

We conducted manipulation checks to assess whether the study participants properly interpreted our scenarios. Significant differences were found for perceived service outcome (e.g., *Referring back to the check-in scenario you have read, do you think your experience at Hotel XYZ was bad/good? 1=Bad; 7=Good*) (M_{success}=6.27 vs. M_{failure}=3.00; F_{1, 183}=267.486, p=0.000) and perceived motive (e.g., *Please determine your perceived motivation of Hotel XYZ for participation in the green program: 1=Self-interested; 7= Environment interested; 1= Profit motivated; 7= Socially motivated*) (M_{self-motive}=3.47 vs. M_{public-motive}=4.85; F_{1, 183}=29.608, p=0.000).
Analysis and Results

The Moderating Effect of Perceived Motive

To test the moderating effect of perceived motive for CSR, we first dichotomized the continual variable of perceived motive by using a median split method (Median=4.0, N_{self-serving}=106, N_{public-serving}=79) (McClelland & Irwin, 2003).

An ANOVA of consumer satisfaction revealed significant main effects of service outcomes (success/failure) (F (1, 181) =291.537, p=0.000) and motives (self-serving/public-serving) (F (1, 181) =102.394, p=0.000) qualified by a significant interaction effect (F (1, 181) =14.740, p=0.000). As shown in Figure 2-2, consumer satisfaction increased in both the service success situation (M_{self-serving} = 5.491 vs. M_{public-serving} =6.444; F (1, 98) = 26.474, p=0.000) and the service failure situation (M_{self-serving} = 2.314 vs. M_{public-serving} =4.434 (1, 83) =74.246, p=0.000) when consumers perceived the hotel’s motive as public-serving. In service failure situations, satisfaction differences between consumers who perceived a self-serving motive and those who perceived a public-serving motive are larger (Mean difference_{public-serving – self-serving} = 2.146, SD=0.24, p=0.000) than satisfaction differences in service success situations (Mean difference_{public-serving – self-serving} = 0.956, SD=0.201, p=0.000) in support of H4 (as shown in Table 2-1).

Table 2-2. ANOVA Output for Moderation Effect of Perceived Motive
Tests of Between-Subjects Effects

Dependent Variable: Satisfaction

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<th>Source</th>
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<th>df</th>
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<th>F</th>
<th>Sig.</th>
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</table>

a. R Squared = .756 (Adjusted R Squared = .752)

Figure 2-2. Interaction of perceived motive and service outcomes.
The Mediating Role of Perceived Warmth and Competence

As shown in Figure 1-2, we propose a case of moderated mediation, in which perceived motive moderates the effect of service outcome on perceived warmth and competence (the mediators), which in turn influence satisfaction (Hayes, 2013, Model 7). Using the mediator model, we examined the effects of service outcome and perceived motive on perceived warmth and found that the interaction is significant ($b = -1.3048$, $p = 0.0001$). This finding suggests that the indirect effect of service outcome, through perceived warmth, varies as a function of perceived motive. Using the second model, we examined the effects of perceived warmth and service outcome on satisfaction. We found a significant effect of perceived warmth on satisfaction ($b = 0.7000$, $p = 0.000$). Using the recommended bootstrapping technique (sample size of 5,000 for bias corrected bootstrap confidence intervals), we found that the conditional indirect effect of service outcome on satisfaction through perceived warmth is significant for hotels with self-serving motives (95% CI =1.4149 to 2.2221), and for hotels with public-serving motives (95% CI =0.4640 to 1.3391).

Using the mediator model, we examined the effects of service outcome, perceived motive, and their interaction on perceived competence. The interaction is significant ($b = -1.5135$, $p = 0.0000$), which suggests that the indirect effect of service outcome through perceived competence varies as a function of perceived motive. Using the second model, we examined the effects of perceived competence and service outcome on satisfaction. The effect of perceived competence on satisfaction ($b = 0.8102$, $p = 0.0000$) is significant. Using the recommended bootstrapping technique (sample size of 5,000 for bias corrected bootstrap confidence intervals), we found that the conditional indirect effect of service outcome on satisfaction through perceived competence is significant for hotels with self-serving motives (95% CI =2.2741 to 3.1141), and
for hotels with public-serving motives (95% CI = 0.9201 to 2.0108). These results support H5 and H6.
Chapter 4

Discussion

This research contributes to the CSR literature by examining consumer satisfaction with green hotels across two types of service outcomes. The findings of Study 1 indicate that hotel type (green/non-green) moderates the impact of service outcomes (success/failure) on consumer satisfaction, and that perceived warmth and competence mediate the relationship between service outcomes and satisfaction. The results of Study 2 demonstrate that firm motives for engaging in CSR (self-serving/public-serving) and service outcomes (success/failure) jointly influence guest satisfaction. Moreover, perceived warmth and competence mediate such relationships.

Consistent with theories that advocate the positive impact of CSR on consumer satisfaction (i.e., Eisingerich et al., 2011; Lee & Heo, 2009; Luo & Bhattacharya, 2006), our findings indicate that green initiatives enhance consumer satisfaction in successful service situations by signaling higher levels of warmth and competence. However, the positive impact of being green was not observed in service failure conditions (Manaktola & Jauhari, 2007). This finding lends credence to Robinot and Giannelloni’s (2010) and Carbon Trust’s (2011) recommendations to use caution when marketing a hotel’s environmental initiatives. As our results indicate, consumers perceive less warmth and competence when they experience service failures.

Congruent with prior research on firm motives for CSR initiatives (Blair & Chernev, 2012; Vlachos et al., 2009), we found that consumer satisfaction with green
hotels is influenced by perceived motives. That is, regardless of service outcome, satisfaction is higher when consumers perceive that a hotel engages in green initiatives to help society (public-serving) rather than to make more money (self-serving). The difference in satisfaction between consumers who perceive self-serving motives and those who perceive public-serving motives is bigger in service failure situations than in service success situations.

**Managerial Implications**

Unlike previous literature focused primarily on service outcomes in terms of eliciting consumer satisfaction, we investigated the effect of perceived warmth and competence in the service context, specifically in hotels with green programs. Results of the first study imply that both warmth and competence are critical for eliciting consumer satisfaction. Therefore, it is worthwhile for hoteliers to pursue consumer satisfaction directly by providing successful service, and indirectly by implementing green initiatives that boost consumer perceptions of warmth and competence. Although providing satisfactory service quality is the top goal for managers in the services industry, they should assess consumer satisfaction by measuring not only service performance, but also consumer perceptions of warmth and competence elicited by CSR actions.

The importance of perceived motive in Study 2 suggests that hospitality managers should be careful when marketing their green efforts to consumers. They should be aware that if consumers perceive a self-serving motive for green programs, perceived warmth and competence (and in
turn, satisfaction) will drop significantly. This is especially true in service failure situations, in which consumers’ attributional processes are heightened. However, when consumers perceive a public-serving motive, consumer satisfaction can be enhanced by CSR initiatives as long as service quality is high.

The results of this research indicate that managers should strategically integrate CSR into their competitive positioning because it reinforces perceptions of warmth and competence. Moreover, managers should cautiously deliver CSR messages to consumers to ensure that a public-serving motive is perceived.

Limitations and Future Research

This study has several limitations that could be addressed in future research. According to Spreng, Harrell, and Mackoy (1995), consumers’ overall satisfaction is determined by the outcome of the original service encounter based on specific service attributes (Singh, 1991), and attributes associated with the service recovery process (Parasuraman et al., 2004). Since consumers’ perceptions of warmth and competence are highly linked to employees’ abilities to show empathy and deliver successful service (Grandey et al., 2005; Mittal & Lassar, 1996; Stauss, 2002) and perceived competence can be restored by new successes (Fiske et al., 2007), service recovery may be considered as another factor affecting perceived warmth and competence, as well as satisfaction.

In addition, we did not investigate the relationship between the perceiver and the target of green initiatives. For instance, Cislak and Wojciszke (2008) predicted that resource use would be
perceived as benefitting either the perceiver (consumer) or the target (environment), resulting in increased perceptions of warmth and competence, respectively. However, we did not define these roles for consumers or the environment, which merits further investigation. Furthermore, the hotel category (budget/mid-range/luxury) was not well defined in our manipulations. Consumers who patronize different categories of hotels have varying social statuses, self-perceptions, and levels of environmental-consciousness (Namkung & Jang, 2012), which may influence their perceptions.

The hypothetical scenario-based experiments may need to be verified with more empirical research. For instance, more than two types of motives (self-serving and public-serving) for a company’s CSR initiatives could be perceived; other possibilities include motives driven by values, stakeholders, strategy, or ego (Ellen et al., 2006; Vlachos et al., 2009). In addition, adding service recovery experiences might change consumers’ perceptions of warmth and competence, and in turn, their satisfaction.
Appendix A
Sample Scenarios and Manipulations for Study 1

Service Success in Green Hotel:

Now imagine that you are paying $220 per night for your stay at Hotel XYZ during your next visit to New York City. Please read the scenarios carefully and answer the questions that follow.

You arrive at the Hotel XYZ at approximately 7:00 pm and go to the front desk to check in. You are immediately treated by the front desk receptionist. The representative welcomes you and looks up your prepaid reservation and informs you that your room is ready. During the check-in, you notice a green certification displayed at the front desk counter.

When you get to your room, you find that the room is clean and exactly the type of room (in terms of number and size of beds, views, and smoking or nonsmoking) that you had reserved. In the room, you need to use an electronic key card to turn the power on and off. There are occupancy sensors and energy saving bulbs in the bathroom and sleeping area. One of the dustbins is labeled “recycling”. A card by the bed tells you sheets and towels are changed upon
request only. When you walk into the bathroom, you notice shampoo and soap dispensers are refillable.

Service Failure in Non-green Hotel:

You arrive at the Hotel XYZ at approximately 7:00 pm and go to the front desk to check in. You wait in line for 5 minutes. When you get to the desk, the representative at the front desk answers a telephone call. When the representative is ready, he/she looks up your prepaid reservation and informs you that your room is ready. However, when you get to your room, you find that the room has not been cleaned. You call the front desk and ask to be reassigned to a clean room.

In the room, you also notice that unlike in some other hotels where you need to use an electronic key card to turn the power to your room on and off, the lights and power to the room are permanently on. Unlike some other hotels that have occupancy sensors and energy saving bulbs in the guest bathroom and sleeping area, bulbs in the sleeping area and bathroom are all bright. Unlike in some hotels where sheets and towels are changed upon request only, a card by the bed tells you that sheets and towels are changed every day. Unlike some other hotels that have refillable shampoo and soap dispensers, the bottled shampoo and soap bar are placed at the dressing desk.
Appendix B
Sample Scenarios and Manipulations for Study 2

Self-Serving:

In addition, you happen to see an endorsement on the shelf from Wall Street Journal talking about the green initiatives by Hotel XYZ indicating that:

“Green Hotels Just Got Bigger and Better!

Hotel XYZ hopes their green programs will boost sales, save 30% to 50% energy, and achieve hard economic savings that would be equivalent benefit of increasing their average daily rate (ADR) by $4.00 to $6.75!”

Public-serving:

In addition, you happen to see an endorsement on the shelf from Wall Street Journal talking about the green initiatives by Hotel XYZ indicating that:

“Green Hotels Just Got Bigger and Better!

Hotel XYZ gives guests who care about making a different access to great services that help people and the planet. Hotel XYZ saved 30% to 50% energy, and devoted about U.S. $ 1.8 million to environment protection in 2012.
Appendix C
Scales

Study 1:

*Perceived Warmth* (*N*=2, *Pearson Correlation*=0.835**):
To what extent do you believe Hotel XYZ is…
1= Extremely Cold 2 3 4 5 6 7= Extremely Warm
1= Extremely unfriendly 2 3 4 5 6 7= Extremely friendly

*Perceived Competence* (*N*=2, *Pearson Correlation*=0.957**):
Given your experience at Hotel XYZ, to what extent do you believe Hotel XYZ is…
1= Extremely incompetent 2 3 4 5 6 7= Extremely competent
1= Extremely incapable 2 3 4 5 6 7= Extremely capable

*Satisfaction* (*N*=7, *Cronbach's Alpha*=0.984):
Please rate your experiences at Hotel XYZ:
1= Displeased me 2 3 4 5 6 7= Pleased me
1= Very Dissatisfied 2 3 4 5 6 7= Very Satisfied
1= Did a poor job for me 2 3 4 5 6 7= Did a good job for me
1= Poor choice 2 3 4 5 6 7= Wise choice
1= Unhappy with 2 3 4 5 6 7= Happy with

Study 2:

*Perceived Motive* (*N*=2, *Pearson Correlation*=0.739**):
Please determine your perceived motivation of Hotel XYZ for participation in the green programs:
1= Self-interested 2 3 4 5 6 7= Environment interested
1= Profit motivated 2 3 4 5 6 7= Socially motivated

**. Correlation is significant at the 0.01 level (2-tailed).

Note: Ecological Concern and Social Desirability scales were tested in the scale reliability checks but were excluded because of no effect on tested variables.
Appendix D  
Process output

Results of mediation tests using Hayes process for study 1

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<td>Service Outcome</td>
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<td>Hotel Type</td>
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<td>Service Outcome X Hotel Type</td>
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<td>Perceived Warmth</td>
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<td>R²</td>
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</tr>
<tr>
<td>F</td>
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</tr>
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<td>df</td>
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<td>.0000</td>
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<td>No.2 Satisfaction</td>
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<tr>
<td>Constant</td>
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<td>.0852</td>
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<tr>
<td>Service Outcome</td>
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<td>Service Outcome X Hotel Type</td>
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<td>p</td>
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Note: N=158

Direct and Indirect Effects

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Conditional indirect effect(s) of service outcome (X) on satisfaction (Y) at values of the moderator—hotel type (M)

| Perceived Warmth Hotel Type (Non-green) | 1.0997 | .2191 | .6947 | 1.5582 |
| Perceived Warmth Hotel Type (Green)    | 1.8742 | .1951 | 1.5160 | 2.2771 |

Note: Number of bootstrap samples for bias corrected bootstrap confidence intervals: 5000
Level of confidence for all confidence intervals in output: 95.00
### Results of mediation tests using Hayes process for study 2

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### Perceived Competence

- Constant: β = 3.8592, se = .0884, p = .0000
- Service Outcome: β = 2.2389, se = .1768, p = .0000
- Hotel Type: β = .7106, se = .0884
- Service Outcome X Hotel Type: β = .7146, se = .1768

### R and R²

- R = .8001, se = .0486, p = .0000
- R² = .6402, se = .0802

### F

- F = 91.3283, df = 3, 154, p = .0000
- F = 326.4738, df = 2, 155, p = .0000

### Note: N=158

#### Direct and Indirect Effects

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#### Conditional indirect effect(s) of service outcome (X) on satisfaction (Y) at values of the moderator-hotel type (M)

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Note: Number of bootstrap samples for bias corrected bootstrap confidence intervals: 5000
Level of confidence for all confidence intervals in output: 95.00
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**R**

| .8106| .0776|
| .6570| .8238|
| 115.5720| 425.5623|
| 3.0000, 181.0000| 2.0000, 182.0000|
| .0000| .0000|

**F**

df 3.0000, 181.0000

p .0000

**Note:** N=185

### Direct and Indirect Effects

Direct effect of service outcome (X) on satisfaction (Y)

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Conditional indirect effect(s) of service outcome (X) on satisfaction (Y) at values of the moderator - perceived motive (M)

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**Note:** Number of bootstrap samples for bias corrected bootstrap confidence intervals: 5000

Level of confidence for all confidence intervals in output: 95.00

### Model No.

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**R**

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| .7573| .8612|
| 188.3003| 564.7795|
| 3.0000, 181.0000| 2.0000, 182.0000|
| .0000| .0000|

**Note:** N=185
References


