

Moderated Mediation of Anticipatory Hope between Green Fashion Advertising Appeals and Word of Mouth -The Role of Perceived Consumer Effectiveness-

Dooyoung Choi · Ha Kyung Lee*[†]

Dept. of STEM Education and Professional Studies, Old Dominion University

*Dept. of Clothing and Textiles, Chungnam National University

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Abstract

Based on the stimulus-organism-response model, this study investigated the effects of three types of green performance appeals (i.e., before-, after-, and before/after-appeals) on consumer word of mouth (WOM) mediated by anticipatory hope. As the degree of consumer susceptibility to advertising varies by individual, individual perceived consumer effectiveness (PCE) was examined as a moderated mediating variable. A total of 191 responses were analyzed using SPSS 27.0 for analysis of variance and PROCESS procedure. Results showed the mediating role of anticipatory hope between advertising appeals and WOM: participants reported greater anticipatory hope when they viewed the advertisement with after- and before/after-appeals. This mediation was moderated by participants' PCE. The effect of green performance appeals on WOM was mediated by participants' anticipatory hope when their PCE was low; however, when participants' PCE was high, the mediation was not significant. The findings show that advertising appeals highlighting the effectiveness of green performance can attract consumers who do not believe that product consumption affects a sustainable environment and spread WOM. This research provides insights to fashion brands by suggesting effective green advertising strategies that can increase consumers' voluntary information-sharing behavior.

Key words: Anticipatory hope, Green advertising, Perceived consumer effectiveness, S-O-R model, Word of mouth

I. Introduction

The turn of the 21st century brought forth and increased awareness of various contentious issues, such as climate change, deforestation, and plastic pollution (e.g., Baiardi & Morana, 2021; Panagiotopoulou et al., 2021). This phenomenon has subsequently shed light on significant historical and political events, which may have a direct influence on today's social trends (Rhein & Schmid, 2020). This segue into present environmental trends with regard to priming events; The 1962

publication of an environmental science book 『Silent Spring』, which documents the effects of pesticides, is frequently referred to as a trigger point of environmental awareness, and the oil crisis in 1973 is widely cited as one of the most influential events that started major public campaigns for the environmental protection, which became the basis of the modern trend in pro-environmental behavior (History.com Editors, 2009). As the environmental movement increased awareness of environmental issues, consumers' consumption decisions and product demands have changed. Environmentally conscious consumption, or green consumption, become a widely accepted consumer trend as a form of

[†]Corresponding author

E-mail: hakyung@cnu.ac.kr

pro-environmental behavior which includes consumption of green products that are intended to cause as little environmental harm as possible, if not benefiting the environment.

Owing to the popularity of green products, considerable research attention was paid to green product consumption. Researchers examined demographic factors (Al Mamun et al., 2018; Li et al., 2019); individual characteristics such as environmental concern, environmental knowledge, and moral identity (Malik et al., 2019; Wang et al., 2020; Wu & Yang, 2018); external influences such as peer influence (Mohd Suki & Mohd Suki, 2019); and barriers hindering green product purchase (Dursun, 2019). Green product advertising also received considerable research attention. Some researchers focused on the role of consumers' characteristics, such as environmental involvement (Zinkhan & Carlson, 1995) or skepticism toward green product advertising (do Paço & Reis, 2012), whereas others focused on differences in advertising messages in promoting green products, such as personal versus environmental benefits (Grimmer & Woolley, 2014) and negative versus positive message framings (Amatulli et al., 2019).

Given that green products are inherently rooted in the consciousness of environmental problems, convincing consumers of the performance of a product in solving environmental problems is important. Product's green performance, that is, the product's performance in making a positive environmental impact or in minimizing a negative environmental impact (Choi & Lee, 2020) is often the key message in the advertisements of green products. Numerous advertisements take a performance-focused approach to promote the effectiveness of an advertised product across diverse product categories; however, research on how such advertising strategy works is limited (Chang, 2016) not to mention how little research attention was paid to the effect of the strategy on green products.

Accordingly, this study aims to contribute to the literature by exploring the effectiveness of green performance advertising. Specifically, the three types of advertising appeals were explored: before-, after-, and

before/after-appeals. Before-appeals feature the problematic state before using the advertised product (e.g., water pollution), whereas after-appeals feature the problem-free state after using the product (e.g., clean water). Before/after-appeals feature the comparison between the two states (e.g., dirty water turns into clean water). Particularly, this study considers the unique characteristics of a green product in examining green performance appeals, that is the anticipatory nature of the product's green performance. Green product purchasing is unique as the effect of the use of a green product on the environment is not immediate. Thus, it requires consumers' hopeful anticipation. Consumers' anticipatory hope can be strengthened with green performance appeals, which could result in positive consumer responses. The causal relationship between advertising influence and consumers' anticipatory hope and subsequent behavioral responses can be framed by the stimulus-organism-response (S-O-R) model (Mehrabian & Russell, 1974). According to the model, exposure to external stimuli, such as advertisements, can affect individuals' emotional responses, which in turn can lead to behavioral responses. Thus, when consumers are exposed to advertisements featuring green performance, they form affective responses that influence their consumption-related responses.

Furthermore, this study aims to explore the role of individual differences in the causal relationship, because the degree of consumer susceptibility to advertising varies by individual. For green product consumption, the impact of the green performance message on consumers will depend on their belief of the impact they will exert on the environment, that is, perceived consumer effectiveness (PCE) (Roberts, 1996). PCE is frequently examined, as well as its significance, to explain pro-environmental behavior (e.g., Cojuharenco et al., 2016; Heo & Muralidharan, 2019; Jaiswal & Kant, 2018) but has yet to be investigated in relation to green performance advertising. Accordingly, examining the moderating effect of PCE to understand the effectiveness of green performance appeals is a meaningful contribution that can expand the role of PCE.

II. Literature Review

1. S-O-R Model

The S-O-R model was developed by environmental psychologists Mehrabian and Russell (1974) to explain how various external factors act as stimuli and influence consumers' emotions (organism), thereby inducing behaviors (responses). As the model provides a basis for understanding the relationships between inputs, processes, and outputs, it is widely used in various psychology and social science domains, such as education (Zhai et al., 2020), tourism (Haobin et al., 2021), information and technology (Song et al., 2021; Tak & Gupta, 2021), and advertising (Sarilgan et al., 2022).

In the context of advertising, stimuli include advertisement components, such as various types of advertising copies (Turgeon & Barnaby, 1988), which can trigger consumers' emotional responses, which in turn drive their behaviors. By applying the S-O-R model to advertising, Tang et al. (2015) identified the types of advertisement design features (e.g., content and form) that lead to consumers' emotional judgment of such features and approach or avoidance behavioral responses. Zhu et al. (2017) also demonstrated the relationship between advertisement accuracy and store patronage intention through consumer pleasure (happiness and pleasantness) and arousal (stimulation and excitement). Similarly, Sarilgan et al. (2022) explored the impact of advertising creativity on consumers' purchase intention and confirmed the causal relationship between the two factors. Based on previous findings on the applicability of the S-O-R model in the context of advertising, we develop a conceptual model to examine the relationship between green performance appeals as the advertising stimuli, anticipatory hope as consumers' emotional response, and word of mouth as their behavioral response.

2. Advertising Focusing on Green Performance

Product consumption is inevitable in living in a con-

temporary world. Consumption is using resources and producing waste, which is apparently the opposite of conservation of resources and the environment. Nonetheless, consumption of green products is considered a good alternative to be environmentally sustainable, as the existence of green products is based on the need to care for the environment. The reasons for purchasing green products can either or both be solving the current environmental problem and avoiding an anticipated environmental problem.

Advertising appeals focusing on green performance is a type of reason advertising (hard-sell) that shows a direct and understandable reason for the purchase, unlike tickle advertising (soft-sell) that uses an implicit appeal such as feelings and humor (Simpson, 2001). Advertisements that provide reasons for purchases by showing the resolved state after using the advertised product are called *after*-appeals as they feature the outcome state after product use; an after-appeal is contrary to a *before*-appeal that shows the problematic state (Chang, 2016). Using before-appeals can be as important as after-appeals, because consumers' recognition of a problem is the precursor of a purchase decision process. By showing a problematic state, advertisers can either create a problem that consumers are not aware of or make the problem salient. In the case of a green product, showing pollution or contamination is a before-appeal (e.g., luxury brand Stella McCartney's fashion photoshoot in a landfill) and presenting images of a clean environment or using colors or phrases that represent nature (e.g., green, blue) is an example of an after-appeal (e.g., H&M's conscious collection ad featuring a rainforest setting; Prius, a hybrid electric car, on green grass with ad copy 'Go Green, Go Prius'). Green performance can be further highlighted by comparing the problem state with the resolved state, with and without the use of the advertised product (Cutler et al., 2000; Stewart & Koslow, 1989), which is a before-and-after appeal (or before/after-appeal) (Chang 2016). A before/after-appeal can highlight the green performance of an advertised product by directly illustrating what it can do to the environment (e.g., plastic bottle waste turning into a pair of Adidas shoes).

Despite common uses of these appeal strategies in practice, surprisingly limited research attention has been given to the comparison of the three appeals (before-, after-, and before/after-appeals). One early study analyzed study television commercials and briefly reported the positive effect of before/after-appeals on commercial memorability and persuasiveness (Stewart & Koslow, 1989). Although the study was not conducted in a commercial context, Obermiller (1995) compared before-appeals with after-appeals for environmental social marketing and reported that the effectiveness of each appeal depends on the perceived importance of the environmental issues. Before-appeals worked better when the environmental issue is considered unimportant, while after-appeals worked better when the issue is regarded important.

Among the three types of appeals, after-appeals featuring the outcome state were examined in relation to process appeals. Unlike after-appeals focusing on the positive benefits of an advertised product, process appeals feature processes for achieving end goals using a narrative or step-by-step guide on how the advertised product can be used to obtain specific outcomes (Escalas & Luce, 2004). Process appeals were reported to induce more favorable consumer responses than after-appeals (Taylor & Schneider, 1989; Taylor et al., 1998), but this case may not be consistent. For example, when an advertisement presents a weak argument (e.g., lacks supporting evidence for the advertised product), after-appeals can be more effective than process appeals (Escalas & Luce, 2004).

With regard to performance-focused appeals, the direct comparison of the three appeals was done almost three decades later. Chang (2016) explored the effectiveness of three types of product performance appeals (i.e., before-appeals, after-appeals, and before/after-appeals; not focusing on green performance) on consumer responses. The research found the strongest effect of before/after-appeals at generating positive consumer responses for various product categories (e.g., false eyelashes, cosmetic contact lenses). Most importantly, the researcher identified the psychological process that explains how the performance appeals

generated consumer responses, with the roles of consumers' perception of product performance and consumers' future-oriented emotions. Compared with before-appeals, before/after-appeals were superior in all cases for increasing perceived product performance and emotional responses, which can lead to high purchase intention. However, in terms of generating emotional responses to lead positive brand attitudes, after-appeals performed as well as before/after-appeals.

Similar findings were reported for green performance appeals for buying green products. Choi and Lee (2020) conducted a study on green product consumption and also found the superior effect of a before/after-appeal on increasing positive brand attitudes through consumers' perception of green performance. Furthermore, they examined the interaction effects with the beneficiary of the green performance (benefits to self or others), and they found that the before/after-appeal was effective regardless of the beneficiary foci. Between before- and after-appeals, each worked better in different situations; when a product is advertised to be beneficial for the self, the after-appeal worked better, whereas the before-appeal worked better when the product is advertised to be beneficial to others. Building on these studies, we extend green performance appeal research by employing a new mediator, namely, anticipatory hope, which has yet to be examined in the context of green product consumption.

3. Anticipatory Hope

As emotions influence consumers' decision-making process and their behavior (Khuong & Tram, 2015), advertisers use emotions to persuade consumers. A classic use of emotion in advertising is affective advertising (Heath & Nairn, 2005), which involves a direct appeal to emotions than to knowledge or beliefs (Bee & Madrigal, 2013). However, the focus of this study is not about emotional appeals by having an emotional component in advertisements. Rather, we explore the effects of reason advertising, that is, green performance appeals, on a future-oriented emotion prior to actions. Specifically, we examine consumers' anticipatory hope

in responding to advertising appeals.

Anticipatory emotions are affective reactions that a person currently experiences due to possible scenarios in the future (Baumgartner et al., 2008). Hope is a type of positive anticipatory emotion (the opposite of negative anticipatory emotion, such as fear) that reflects positive feelings about the possible occurrence of a desirable future event (Baumgartner et al., 2008; MacInnis & de Mello, 2005). When anticipatory hope is applied to advertising, it refers to positive emotions that a consumer feels about having the advertised product. Charles H. Revson, the founder of Revlon cosmetics, said that they make cosmetics in the factory, but they sell hope in the store (MacInnis & Chun, 2007). Advertisers claim that their products allow consumers to achieve a desirable future, and they profit from enhancing consumers' anticipatory hope (MacInnis & de Mello, 2005). The effectiveness of such marketing tactics is supported by empirical evidence. For example, Moore (2010) examined the anticipatory emotions in advertisements for a resort and reported that seeing the advertisements made consumers have greater anticipatory hope for a future vacation, which, in turn, led them to have a greater desire for the vacation. Delbaere and Willis (2015) also demonstrated that advertisements elicit feelings of hope and generate positive attitudes toward the advertisements and a greater likelihood of talking about the brand to others in the context of pharmaceutical advertisements. Furthermore, the significant role of consumers' anticipatory hope was reported in the context of pro-environmental behavior. For example, Ojala (2012a, 2012b, 2015) continuously showed that people's hope is a critical factor that fosters actions toward solving climate change among adolescents. Stevenson and Peterson (2015) also reported that hope is a key predictor of pro-environmental behaviors, and Kerret et al. (2020) reported that higher levels of hope in solving environmental problems are associated with more pro-environmental behaviors among younger generations.

Similarly, consumers' anticipatory hope may play a significant role in the context of green consumption. Although anticipatory hope is an emotion that consu-

mers experience in the present, it is based on the expectation of a desired future outcome. Hence, uncertainty is embedded in the experience of the emotion (Baumgartner et al., 2008), which is particularly pertinent to green products. Unlike consumer goods that may guarantee immediate changes to a desirable state (e.g., hair dye products, make-up products), green products may not provide immediate benefits from their environmental effectiveness. Consumers buy green products with the hope of improving the environment. However, such improvements do not occur overnight with a single green product. Accordingly, consumers may need affirmation to keep their hopes up, and advertising messages can reinforce consumers' hope for a better environment in the future. In other words, consumers' hopeful anticipation can be influenced by how advertisements portray a product's green performance, which can also be explained by the stimuli and emotion relationship based on the S-O-R model. With uncertainty in environmental effectiveness, convincing consumers of a product's green performance is important for advertisers. Hence, advertisements that directly show environmental effectiveness using after-appeals and before/after-appeals would be more effective in generating consumers' anticipatory hope than before-appeals.

Hypothesis 1: After- and before/after-appeals increase more anticipatory hope than before-appeals do.

4. Word of Mouth

Word of mouth (WOM) is defined as an exchange, flow of information, communication, or conversation between individuals and is usually regarded as an informal and non-commercial conversation (Goyette et al., 2010). While the estimated offline WOM accounts for 85% of overall WOM conversations (Keller & Fay, 2012), WOM can occur through various different means of communication such as email or phone. Through WOM, personal and impersonal recommendations of products or services can be made between friends, family, and acquaintances (Brown & Reingen, 1987;

Duhan et al., 1997).

The importance of WOM as a form of social influence has been well documented for several decades. An early study (Myers & Reynolds, 1967) found that how a consumer thought her friends liked a product was a clearer predictor of actual purchases than how the consumer liked the product. In the 21st century, WOM not only remains valued but also is considered one of the buzzwords for advertisers due to concerns with fragmented audiences, cluttered advertisements, and bothered consumers who avoid advertising (Nyilasy, 2006). WOM is perceived to be a noncommercial and trustworthy source of information, and despite its content being commercial (Nyilasy, 2006), advertisers consider WOM as an effective advertising strategy. When consumers share an advertisement with others, the reach of the advertisement can be extended, thereby facilitating implicit consumer endorsement (Keller & Fay, 2012). Especially in the era of social networking services, WOM is a significant and inexpensive way to reach potential consumers.

WOM can play a crucial role in the diffusion of green products; the wide endorsement of green products is important because exerting a meaningful impact on the environment requires collective action at the societal level. Not surprisingly, researchers examined WOM in the context of green product consumption. For example, Chen et al. (2014) highlighted the importance of WOM in spreading product environmental messages, which can exert a significant impact on the consumer decision making process. In addition, Mansoor and Noor (2019) found that consumers with high environmental concern and awareness tend to have high purchase intention for green products. Particularly, this tendency was strong among consumers with strong WOM values regarding green products.

Although studies on the effect of WOM on consumers or on the antecedents of WOM (e.g., satisfaction, quality, loyalty, and trust; see the meta-analysis review by de Matos and Rossi (2008)) are abundant, relatively little research attention was paid to the effect of advertising on WOM (Lovett et al., 2019). Only a handful of studies examined WOM together with traditional paid

advertising (e.g., TV, print, or radio). While some studies compared the effects of the two approaches on consumers and reported that WOM has a stronger performance impact on sales (Trusov et al., 2009), others reported the synergy effect of WOM with traditional advertising or the indirect effect of WOM on sales through traditional advertising (Hewett et al., 2016; Pauwels et al., 2016). Among a few studies focused on the impact of advertising on WOM, Graham and Havlena (2007) examined the influence of TV advertising, magazine advertising, and online advertising on WOM for 35 brands in five product and service categories (i.e., auto, retail, soft drinks, technology, and travel). After analyzing consumer activities over 26 consecutive weeks, the authors concluded the measurable positive impact of the three types of advertising on WOM. Among the three advertising channels, online advertising exerts the most consistent impact on WOM. Similarly, Pauwels et al. (2016) investigated the influence of four advertising channels (i.e., TV, online, radio, and print) on WOM and observed the significant influence of advertising on WOM, which in turn increases store traffic. Specifically, the authors determined that radio advertising is effective for increasing store traffic only through WOM.

As previous studies demonstrated the impact of advertising on WOM, we expect green performance advertising to influence consumers' WOM for a green product, and the influence can be further explained by consumers' anticipatory hope. Consumers' emotions were reported to be the most important driver of WOM, along with social and functional motives (Lovett et al., 2013). The frequently examined emotional driver of WOM is satisfaction, and consumers with high or low satisfaction will tend to engage in WOM more than those with moderate satisfaction (Richins, 1983; Roberts, 2004). While dissatisfied consumers tend to spread negative WOM with strong emotions, such as anger or frustration, satisfied consumers tend to spread positive WOM with cognitive and considered comments about their experiences (Sweeney et al., 2005). Similar to how consumers' positive emotion of satisfaction (or negative emotion of dissatisfaction) influences their WOM,

consumers' positive emotion of anticipatory hope can influence their WOM. Particularly, we hypothesize that consumer' santicipatory hope will mediate the influence of green adverting on WOM based on the S-O-R model and the findings from previous studies on the effects of advertising on hope (Delbaere & Willis, 2015; Moore, 2010) and hope on behaviors, WOM (Lovett et al., 2013; Sweeney et al., 2005). Hence, we propose the following hypothesis:

Hypothesis 2: Anticipatory hope mediates the effect of green performance appeals on word of mouth.

5. Perceived Consumer Effectiveness

Even though advertising appeals that directly show the effectiveness of a product (after- and before/after-appeals) are likely to elicit positive emotions of a desirable future, people may differ in their anticipation for the positive future outcome due to individual differences. For example, in Chang's (2016) study, although after- and before/after-appeals generated significantly high anticipatory hope that led to positive brand attitudes, this relationship was only significant for individuals who are highly involved with the product. For individuals who shows low involvement to the product, the appeals had no influence on them. Similarly, we propose to explore the difference in perceived consumer effectiveness (PCE) as a moderated mediator. PCE is an individual characteristic that refers to consumers' subjective judgment on their ability to affect environmental problems as an individual consumer (Roberts, 1996). PCE is one of the significant facilitators and predictors of pro-environmental behaviors, such as purchasing green products (Jaiswal & Kant, 2018) and recycling (Cojuharenco et al., 2016).

Applying PCE in this study, the effects of green performance appeals are dependent on their beliefs in their ability to make an environmental impact. As green products are designed to induce environmental changes, it is understandable that consumers' belief in their ability to make such changes would play a significant role.

For example, consumers who do not believe that their purchase of a green product can make any difference in the environmental issues would be less likely to feel hopeful or optimistic about having the product. Thus, for consumers with low PCE, seeing or not seeing the green performance in solving a problem would be influential to them. The outcome-focused approach (after- and before/after-appeals) would stimulate them to feel hopeful, whereas the problem-focused approach (before-appeal) would less likely encourage them to feel hopeful as their perception of their ability is low. Conversely, consumers with high PCE may be less likely susceptible to advertising appeals because of their confidence in their own ability in solving environmental issues by having the advertised product and being able to imagine the personal contribution or solution even with the problem-focused appeals. Otherwise stated, the advertising appeal types, either before-appeals or after- and before/after- appeals, would make no or little difference in making them hopeful for the future. On the basis of this argument, we hypothesize the following:

Hypothesis 3: (A) When an individual's perceived consumer effectiveness is low, after- and before/after- appeals will have a greater anticipatory hope (versus before-appeals); however, (B) when an individual's perceived consumer effectiveness is high, message appeals will have no influence on anticipatory hope.

In a study that examined people's thoughts about hope, Averill et al. (1990) found the link between hope and action. The researchers stated that if people hope and think that a goal is achievable (closer, probable), they act to achieve the goal. Hope motivates people to take appropriate actions, that is, to work hard to achieve a goal. The researchers reported that persistent attempts to achieve the goal are especially true for those who witness their personal effectiveness. On the basis of the relations among hope, actions, and personal experiences of effectiveness, we hypothesize that the in-

teraction between anticipatory hope and PCE will influence the relationship between advertising appeals and the consumer action of WOM, for this study.

Hypothesis 4: When an individual's perceived consumer effectiveness is low, the effect of message appeals on word of mouth will be mediated by anticipatory hope.

III. Methodology

1. Stimuli Development

A brand overview page and three manipulation pages were created for a mock denim brand inspired by a well-known fashion denim brand that promotes their efforts in keeping the water clean by reducing water consumption for their manufacturing process, such as fabric dyeing and washing. In the brief introduction, we described the mock denim brand as an environment friendly fashion brand that designs and manufactures quality denim using eco-friendly techniques. For the manipulation pages, we adapted an image from the actual brand showing a water-wrung-out denim product as constant and manipulated its copy to create three types of advertising focused on green performance. We conducted the manipulation by changing the adjective 'Contaminated' for a before-appeal, 'Clean' for an after-appeal, and 'Contaminated but now Clean' for a before/after-appeal.

2. Measurements

All measurement items were adapted from previous studies. To access consumers' anticipatory hope, three relevant feelings were measured on the basis of the findings of Richins (1997); Participants were asked to indicate the degree of their emotions about having the advertised brand: hopeful, encouraged and optimistic. They were measured on five-point scales that ranged from 'none at all' to 'a great deal'. The measurement for WOM was adapted from Alexandrov et al. (2013)

and Yeh and Choi (2011). We included two items for regular WOM (e.g., speak of this brand's good sides) (Alexandrov et al., 2013) and two items for online WOM (e.g., recommend this brand on my social network sites) (Yeh & Choi, 2011). They were measured on seven-point scales from 'extremely unlikely' to 'extremely likely'. For accessing individual differences in PCE, we used items from Kim and Choi (2005). Three items (e.g., I can protect the environment by buying products that are friendly to the environment) were measured on seven-point scales that ranged from 'strongly disagree' to 'strongly agree'. General demographic information was gathered at the end of the survey. Three attention check items (one scale format and two text formats) were included and mixed with other measurement items to prevent random responses.

3. Data Collection and Analysis

We developed an online survey that includes the stimuli and the questionnaire items. Potential participants were reached through a crowd-sourcing site, Amazon Mechanical Turk. They were briefly introduced to the study and could move to the survey link by clicking on a hyperlink on the page. When they moved to the survey site, consent information was provided. After the consent process, they were randomly assigned to one of the three advertising appeal conditions (before-, after-, and before/after-appeals). After data collection, we analyzed the responses using SPSS 27.0 for descriptive statistics, reliability analysis, analysis of variance (ANOVA) and PROCESS procedure (Preacher & Hayes 2008).

Among the initial 209 responses, 18 responses were excluded because they showed poor data quality (e.g., missing responses, failed attention check tests), which resulted in a total of 191 responses (before-appeal: $n = 62$; after-appeal: $n = 62$; before/after-appeal: $n = 67$). The demographic characteristics consisted of 113 female consumers (59.2%), 76 male consumers (39.8%) and 2 others (1.0%). Most of them were in their 20s and 30s (80.1%) with a mean age of 32.4 years. Approximately 40% of them were Caucasian (38.7%),

followed by Asian (33.5%) and Black or African American (14.7%). Almost half of them had 4-year degrees (49.2%), followed by professional degrees (25.1%). Married participants accounted for slightly more than half (55.5%) and followed by singles (35.6%). Full-time employees accounted for most of the participants (81.7%), followed by part-time employees (10.0%), students (3.1%), unemployed looking for work (2.6%), and others (2.6%). Approximately 30% of them had a total household income between \$25,000 and \$49,999 (31.4%) and followed by between \$50,000 and \$74,999 (23.0%) and between \$75,000 and \$99,000 (16.2%).

IV. Results

1. Manipulation Check

To test whether participants in each condition perceived the intended green performance appeals, they were asked to rate about the assigned advertising on a seven-point Likert-type scale in response to ‘this advertisement shows the solution to problems in denim production’ on a seven-point scale ranging from ‘strongly disagree’ to ‘strongly agree’. The result of ANOVA revealed a successful manipulation, $F(2,188) = 7.784$, $p < .001$. Participants who were assigned to the outcome-

focused conditions, either after-appeals ($M_{\text{after}} = 5.19$) or before/after-appeals ($M_{\text{before/after}} = 5.58$), generated a statistically significantly higher response to the statement than those in the problem-focused condition of before-appeals ($M_{\text{before}} = 4.53$). Therefore, participants perceived the after- and before/after-appeals as showing the solution to an environmental problem to a greater degree than before-appeals.

2. Measurement Reliability

To evaluate the precision and internal consistency of collected responses, factor analysis and reliability tests were conducted for all measurement items before hypothesis testing. All items for anticipatory hope showed factor loadings above .762 with a Cronbach's alpha of .805. All items for WOM showed factor loadings above .645 with a Cronbach's alpha of .885. All items for PCE showed factor loadings above .716 with a Cronbach's alpha of .790. The results indicate a satisfactory level of measurement reliability (Table 1).

3. Hypotheses Testing

To test whether after- and before/after-appeals increase more anticipatory hope than before appeals, we

Table 1. Result of factor analysis

Factor name	Item	Factor loading	Variance explained % (Cumulative variance %)	Cronbach's α
Word of mouth	Recommend this brand on my social network sites.	.827	54.413 (54.413)	.885
	Be proud to say to others that I am this brand's customer on my social network sites.	.791		
	Speak favorably of this brand to others.	.777		
	Speak of this brand's good sides.	.645		
Perceived consumer effectiveness	I feel I can help solve natural resource problems by conserving water and energy.	.832	10.954 (65.367)	.790
	I can protect the environment by buying products that are friendly to the environment.	.782		
	Each person's behavior can have a positive effect on society by signing a petition in support of promoting the environment.	.716		
Anticipatory hope	Optimistic	.797	8.294 (73.661)	.805
	Encouraged	.776		
	Hopeful	.762		

conducted ANOVA. Participants reported greater anticipatory hope when they view the advertisement with after- and before/after-appeals ($M_{\text{after}} = 3.73$, $M_{\text{before/after}} = 3.91$) than before-appeals condition ($M_{\text{before}} = 3.42$; $F(2,188) = 4.373$, $p < .001$). Therefore, Hypothesis 1 is supported.

To test the mediating role of anticipatory hope, we applied the PROCESS procedure proposed by Preacher and Hayes (2008). We coded the condition of the before-appeal as 0 and the conditions of the after- and before/after-appeals as 1, and we analyzed the advertising appeals as the independent variable. The results from the mediation analysis using Model 4 with 1,000 bootstrap samples showed that advertising appeals increased word of mouth, mediated by anticipatory hope (indirect effect = .2507, 95% CI = .0738: .3431). The direct effect of green performance appeals on WOM was close to not significant (direct effect = .1434, 95% CI = -.0034: .2902), which indicates that anticipatory hope acts as full mediation between green performance appeals and WOM (Fig. 1). Therefore, Hypothesis 2 is supported.

To test the moderating effect of individuals' PCE, we conducted ANOVA with advertising appeals and PCE as independent variables and anticipatory hope as a dependent variable. Individuals' PCE was divided into low and high groups according to the mean value (mean = 5.7592). Two groups showed a significantly different level of PCE, $F(1,189) = 18.979$, $p < .001$,

$M_{\text{low}} = 5.0465$, $M_{\text{high}} = 6.3429$. The main effect of green performance on anticipatory hope was significant, $F(2,185) = 6.637$, $p < .001$. The result also showed a significant main effect of PCE on anticipatory hope, $F(1,185) = 69.834$, $p < .001$. The interaction effect between green performance appeals and PCE was significant, $F(2,185) = 6.474$, $p < .01$ (Fig. 2). For participants with low PCE, the effects of advertising appeals were significantly different; participants assigned in after and before/after-appeals showed greater anticipatory hope than those in before-appeals. Thus, Hypothesis 3(A) was supported. However, for participants with high PCE, the advertising appeals created no difference in their anticipatory hope; their anticipatory hope was higher than those with low PCE regardless of advertising appeals. Thus, Hypothesis 3(B) was supported.

To test all hypotheses at once with moderated mediation model, we conducted PROCESS procedure using Model 7 (Preacher et al., 2007). We analyzed advertising appeals as the independent variable, anticipatory hope as the mediator, PCE as the moderator and WOM as the dependent variable. A 95% bias-corrected bootstrap (with 1,000 samples) confidence interval (CI) revealed that the mediation model was moderated by PCE. The effects of independents on dependents are statistically significant when no zero exists between the lower and upper level CI (LLCI and ULCI), in addition to the p and t values obtained (Preacher & Ha-

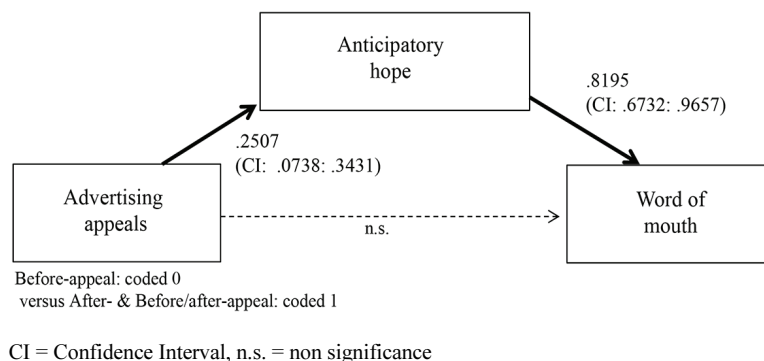
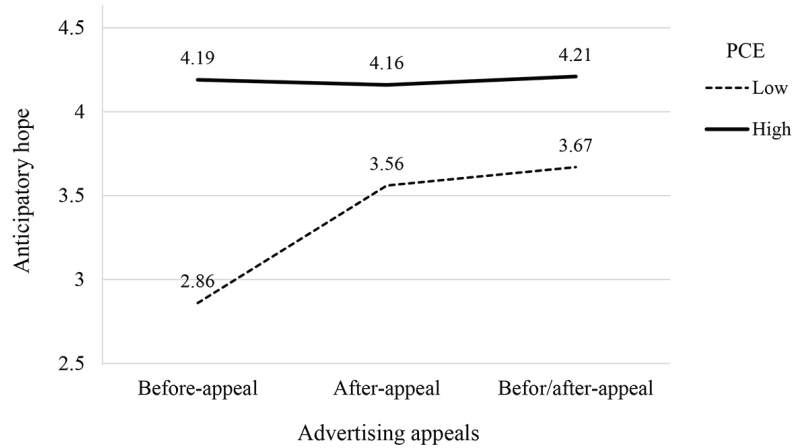


Fig. 1. Results of the mediation model.



PCE = Perceived Consumer Effectiveness

Fig. 2. Interaction effects between advertising appeals and perceived consumer effectiveness on anticipatory hope.

yes, 2008). When after- and before/after-appeals were presented in the advertisement, participants' anticipatory hope increased ($B = 1.9427, p < .01, 95\% \text{ CI} = .4736: 3.4117$), which increased WOM ($B = .8252, p < .001, 95\% \text{ CI} = .6785: .9720$). Therefore, Hypotheses 1 and 2 were supported again. Regarding the moderation effect of PCE, the interaction effect between advertising appeals and PCE on anticipatory hope was significant, thereby supporting Hypothesis 3 again ($B = -.2928, p < .05, 95\% \text{ CI} = -.5497: -.0359$). In addition, the mediation effect of anticipatory hope was moderated by PCE, indicating that the conditional indirect effect was significant. The effect of green performance appeals on WOM was mediated by participants' anticipatory hope when their PCE was low (-1SD and mean level of PCE) (Table 2). However, when partici-

pants' PCE was high ($+1\text{SD}$ level of PCE), the mediation model was not significant. Therefore, Hypothesis 4 was supported (Fig. 3).

V. Conclusions

1. General Discussion

The present study verified the interplay effect of advertising appeals and PCE on WOM, mediated by anticipatory hope. Green advertisements using after-appeals and before/after-appeals induced greater anticipatory hope in consumers than before-appeals. This result indicated that advertising appeals that present improved condition after product use increase consumers' expected hope with its green performance.

Table 2. Conditional indirect effect of advertising appeals on WOM at values of PCE

PCE	Effect size	Boot SE	95% Confidence Interval	
			LLCI	ULCI
-1SD	4.9526	.4065	.1562	.7010
Mean	5.7592	.0949	.0403	.4093
+1SD	6.5657	.0168	-.1973	.2936

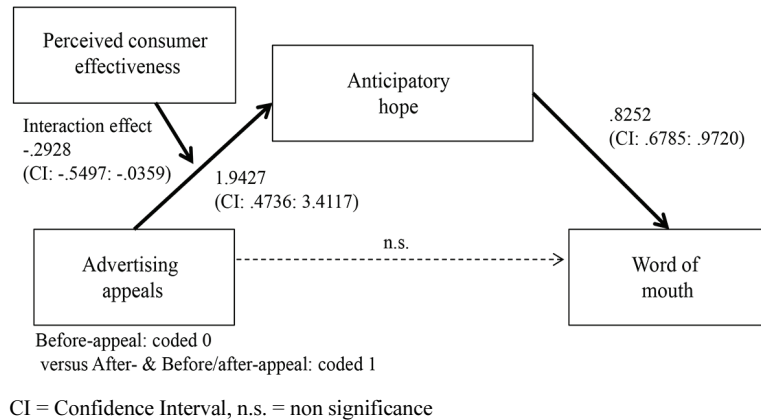


Fig. 3. Results of the moderated mediation model.

In addition, consumers' anticipatory hope acts as a full mediation between advertising appeals and WOM. This result highlights the important role of consumers' anticipatory emotions because delivering advertising messages to consumers is not enough to motivate their behaviors. This mediation effect of anticipatory hope was moderated by PCE, especially when participants' PCE was low (versus high). Consistent with our expectation, consumers with low PCE are less confident in their own ability in solving environmental issues. As a result, outcome-focused appeals such as after- and before/after-appeals can help them have expectations for the states where environmental problems have been resolved.

2. Theoretical Implication

This study makes several contributions to the literature on the effectiveness of green advertising. First, this study confirms the applicability of the S-O-R model in the context of green performance advertising and suggests a new variable related to an organism. The causality relationship between green performance appeals as the stimuli and consumer responses and behaviors is consistent with the findings of previous studies showing the applicability of the model in advertising (e.g., Sarilgan et al., 2022; Tang et al., 2015; Zhu et al., 2017). Moreover, the validation of anticipatory

hope as consumers' emotional response is a meaningful contribution to the traditional S-O-R model, because it dedicates the applicability of the S-O-R model to a future-oriented emotion as the organism.

Second, though relatively more previous studies were interested in identifying green consumers or focusing on their characteristics (e.g., Al Mamun et al., 2018; Li et al., 2019; Malik et al., 2019; Wang et al., 2020; Wu & Yang, 2018), this study focuses on the effectiveness of advertising appeals that can be applied to green- and non-green consumers. This study contributes to the green advertising literature by empirically testing the effect of green performance appeals and the consumers' psychological mechanism. As studies on advertising appeals focusing on before-, after-, and before/after-appeals are limited as well as those on green performance appeals, only a few studies identified the types of psychological mechanisms motivating consumers to perform brand-related behaviors. Consistent with previous findings (e.g., Chang, 2016; Choi & Lee, 2020; Stewart & Koslow, 1989), the findings of this study show the usefulness of before/after-appeals. By determining the mediating role of anticipatory hope, this study demonstrates how advertising messages induce consumer behavior in the context of green products.

Third, our finding demonstrates anticipatory hope as a driver of WOM. The majority of the literature has

documented brand-related variables such as consumers' satisfaction, loyalty, commitment, trust, and perceived value as antecedents of WOM (de Matos & Rossi, 2008). Add to the findings from previous studies, this study verifies that consumers' general emotions (Lovett et al., 2013) and future-oriented emotions, as shown by the significance of anticipatory hope, can drive WOM in the context of green consumption.

Finally, consistent with previous research that reported the notable influence of PCE in the context of pro-environmental behavior (e.g., Cojuharenco et al., 2016; Jaiswal & Kant, 2018), this study observes the significant role of PCE in understanding the effectiveness of green advertising. Specifically, this study determines how the effectiveness of green performance appeals can be changed based on the level of PCE. Consumers with high PCE have high anticipatory hope regardless of the advertising appeal, but consumers with low PCE can be encouraged to keep their hopes up and act on their hopes by after- and before/ after green performance appeals. The moderating effect of PCE in relation to anticipatory hope is a meaningful contribution to the pro-environmental behavior literature.

3. Managerial Implication

The research findings can provide insights to marketers by suggesting effective advertising strategies that can increase consumers' voluntary information-sharing behavior. WOM is a voluntary behavior that can aid in brand marketing strategies and multiply the effectiveness of traditional paid advertising (Hogan et al., 2004). The causal relationship between consumers' anticipatory hope and WOM supports the idea that encouraging consumers to feel hopeful and optimistic will increase their willingness to share words about a brand.

Specifically, the advertising effect is useful for convincing consumers with low PCE. This study reveals that after-appeals and before/after-appeals are effective in influencing consumers who do not believe that their purchase of a green product will make a difference in the environment. Advertising appeals demon-

strating the effectiveness of green performance can attract consumers who do not believe that product consumption affects environmental sustainability and transform their lack of belief into action through increased anticipatory hope.

4. Limitations and Future Study Directions

The current study has several limitations that can be supplemented in future studies. Firstly, this study was conducted in the context of the apparel product category; the follow-up study can focus on other categories such as beauty, food, beverage or housing. Secondly, individual characteristics other than PCE can be explored. The effect of problem- or outcome-focused appeals may be strengthened among certain consumers depending on their individual characteristics. In addition, situational factors can alter the effect of advertising appeals on consumers. For example, even though the current study controlled for the brand effect by creating a mock brand and its advertisements, consumers' brand knowledge or involvement may moderate the effect of advertising appeals on anticipatory emotions in a real marketing environment. Thirdly, other anticipatory emotions can mediate the effect of advertising appeals on brand-related behaviors. For example, advertising appeals focusing on a problem could make people feel fear. Similarly, advertisements showing the superior performance of a product could make people feel relaxed by seeing the resolved state. In the same way, consumers' states from exposure to advertising appeals can be explored. For instance, people who see after- and before/after-appeals in advertisements could be curious about how product/brand consumption help solve a problem. Follow-up studies can not only facilitate the generalization of this study's results but also aid in understanding the effect of advertising appeals on consumers in green consumption contexts.

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Dooyoung Choi

Assistant Professor, Dept. of STEM Education and Professional Studies, Old Dominion University

Ha Kyung Lee

Assistant Professor, Dept. of Clothing and Textiles, Chungnam National University
