

**EXPLORING THE EFFECTS OF CONSUMER ATTITUDE AND PURCHASE
INTENTION ON GREEN PRODUCTS: IMPLICATIONS ON CORPORATE
ENVIRONMENT STRATEGIES AND PUBLIC POLICY**

By

Soon-Gil Choi

THESIS

*Submitted to
KDI School of Public Policy and Management
in partial fulfillment of the requirements
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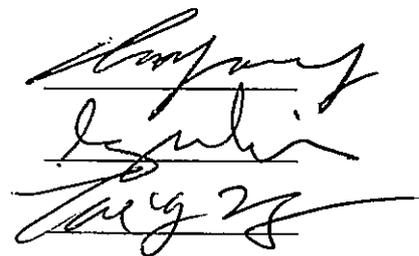
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ABSTRACT

EXPLORING THE EFFECTS OF CONSUMER ATTITUDE AND PURCHASE INTENTION ON GREEN PRODUCTS: IMPLICATIONS ON CORPORATE ENVIRONMENT STRATEGIES AND PUBLIC POLICY

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There are various studies on the relationships among consumer attitude, purchase intention, satisfaction, and loyalty; however, their relationship in the perspective of green performance—in particular, green products—is still to be investigated. Based on the modified extended Fishbein model, the purpose of this study is to explore i) how environmental concerns affect consumer's overall attitude; ii) how self-expressive benefits toward green performance affect consumers' overall attitude; iii) how the degree of perception on the social norm affect consumers' overall attitude; iv) how the perceived greenwashing affect consumers' overall attitude; v) how the degree of consumers' overall attitude affect green purchase intention; vi) how green purchase intention affect satisfaction; and vii) how satisfaction on green products affect loyalty in the product or company. This study applied statistical analyses, such as Cronbach's alpha, factor analysis, analysis of variance (ANOVA), and multilinear regression analysis. The results of the study found that the proposed hypotheses are all statistically significant and thus provides both theoretical and managerial implications for future studies.

KEY WORDS: Green Performance, Green Product, Greenwashing, Attitude, Purchase Intention, Environmental Concern, Social Norm, Self-expressive Benefit

ACKNOWLEDGMENTS

“Give thanks in all circumstances.”

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I. INTRODUCTION

Nowadays, concern over the environmental crisis has been raised to an alarming level all over the world as the effects of climate change become evident and continue to affect daily life. Bleischwitz, Kuhndt, and Langrock (2003) define the issue of climate change as challenging as environmental science has proven the consensus about its causes and effects; potential disasters resulting from climate change's accumulated impact (worldwide) cannot be excluded as well. The need for counteraction is widely acknowledged and any movement taken needs to be coordinated among different fields with correlation posing as pivotal to tackle the problem effectively.

The level in tackling the environmental crisis has recently narrowed down to this sequence: International, Government, Corporate, Individual. As the portion of the responsibility toward environmental efforts has also been increasing by that sequence, more research has been made in finding the correlation of the fields. Previous studies mentioned that governance can more effectively mitigate climate change than certain stakeholders, such as international organizations, nations, or firms (Jordan 2008; Kemp, Parto, and Gibson 2005; and Bleischwitz, Kuhndt, and Langrock 2003). However, what is governance in the first place? The term itself can be defined in many different ways. Bevir (2013) postulated that "governance" refers to all processes of governing, whether undertaken by an organization, government, or private sector, to coordinate in the achievement of the goal or in dealing with the problem.

Before the growing concern, research for mitigating the environmental crisis was facilitated and even mainly carried out in an international or national aspect (Bell 2002; Hopwood, Mellor, and O'Brien 2005; Nielson and Tierney 2003). Coordination or cooperation at a global level still

has a long way to go as stakeholders have different self-interests and are faced with different circumstances affected by the environment crisis even though in the end, everyone is affected (Hallegatte 2009; Minton and Rose 1997).

Recently, more researches were published in the aspect of the companies that are either requested or pressured to involve themselves with corporate social responsibility (Devinney and Louviere 2003; Mohr, Webb, and Harris 2001; Moisander and Pesonen 2002). Buysse and Verbeke (2003) classified three dominant environmental management strategies, which will be further elaborated in the literature review; that is, (1) passive reactive strategy, (2) pollution prevention, and (3) environmental leadership. Although many companies shifted their passive reactive strategy to a pollution prevention strategy, it is still important to take into account the fact that environmental management strategies have clear benefits, such as expansion of market share, improvement of corporate image, acquisition of potential consumers, and long-term cost reduction, and are almost never a source of difficulties for companies (Chen, Lai, and Wen 2006). Creating consumer satisfaction and acquiring long-term consumers are a company's priority goals to achieve profitability and sustainability in their businesses (Grimmer and Bingham 2013). When companies acknowledge the benefits of environmental management strategies, the more companies would voluntarily shift from a pollution prevention strategy to one that will uphold environmental leadership (Chen 2013; Moon 2010).

The number of consumers who are developing environmental awareness is increasing; however, not only is the number of green consumers growing but purchase decisions based on a corporate social responsibility and its degree of environmental responsibility also continue to intensify (Devinney and Louviere 2003; Yang 2014; Yi 1990). On top of that, green products and the service market were estimated to be worth USD 230 billion in 2009 (Heidi 2009) and

were predicted to grow to USD 845 billion by 2015 (Heidi 2009). This is because more and more companies are implementing an environment strategy of their products and practices in order to reap the benefits these expanding green markets provide (Delmas and Cuerel Burbano 2011).

In summation, it is pivotal to explore how consumers behave concerning their attitudes and purchase intention toward green products or green performance. This paper supports the adaptation of a green strategy of companies, aims to extend help to the implementation of green strategies effectively through demonstrating the factors that influence consumers' green purchase attitude and intention, and demonstrates that to achieve sustainable development and mitigate the environment crisis, we need to observe and develop green performance among the government, companies, and consumers. In particular, this study investigates the following:

- i) To demonstrate that the effect of environmental concern affects consumers' overall attitude.
- ii) To demonstrate that the effect of self-expressive benefits toward green performance affect consumers' overall attitude.
- iii) To understand the degree of perception on the social norm affect consumers' overall attitude.
- iv) To research the effect of perceived greenwashing on consumers' overall attitude.
- v) To demonstrate that the degree of consumers' overall attitude affect green purchase intention.
- vi) To find out the green purchase intention affect satisfaction.
- vii) To investigate satisfaction in green products affect loyalty in the product or company.

II. LITERATURE REVIEW

A number of studies have been published to advocate the neoclassic view that puts more weight on the intervention and policies of several international organizations (or governments) (Dobes, 2009; Smith, Vogel, and Cromwell III 2009). This is understandable given that the environment is more related to public goods than private goods. When it comes to public goods, two characteristics are presented: i) A nonexcludable good is a good or service that is nonexcludable if nonpaying consumers cannot be prevented from accessing it (Romer 1990) and ii) A nonrivalrous good may be consumed by one consumer without the need to prevent simultaneous consumption by others (Leach 2004).

Through the normative economic theory, policy intervention into public goods, such as the environment, is an efficient way to mitigate the problem by specific regulation or incentive (Agrawala, de Bruin, and Dellink 2009). However, there is always a difference between reality and a practiced setting. Previous study by Kolk and Pinkse (2007) explained the reason behind the inability of international policy intervention to reach consensus with an empirical case study. For the first time, policy intervention on climate change was included in the agenda of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 (Grubb, Vrolijk, and Brack 1999). It took almost five years to agree on the details in the Kyoto Protocol without the participation of the United States (Grubb, Vrolijk, and Brack 1999).

The U.S rejected the Kyoto Protocol, which was the first international-level policy intervention that gave consideration to climate change, officially expressing that ratification would clearly damage the U.S. economy and its trade competitiveness in March 2001 (Mathews

2000). With this, the case of this protocol showed that no matter how planned out the ideology is, if it is against one's self-interest, it will turn out as ineffective.

Furthermore, a principal–agent problem was speculated to exist among the members (Barnett and Finnemore 1999). Barnett and Finnemore (1999) demonstrated that the principal (international organizations)–agent (member countries) problem is rooted in the mismatch between what principals want and what agents want. In the paper of Dreher and Jensen (2007), they questioned whether the International Monetary Fund determine its earmarked loan beneficiary based on the beneficiary's economic status or whether it is determined by the IMF's key stakeholder, such as the U.S. Dreher and Jensen (2007) also showed us that the total number of earmarked loans was provided to the U.S. or countries with a good relationship with key stakeholders during 1997 to 2003, which is completely not in line with the origin of the IMF.

The aforementioned Kyoto Protocol(Self-interest) and the principal–agent issue served as key barriers in the possible coordination at an international and national level and were great burdens toward the building up of society's expectation of shared growth beyond the crisis (Barnett and Finnemore 1999). In line with this, companies' responsibility in the environment crisis has been rapidly increasing with the hopes that the consumers' perception on environment-friendly companies will lead to their more favorable attitude and higher purchase intention (Creyer, 1997); companies are either requested or pressured to observe corporate social responsibility. For CSR initiatives and green performance, companies allocate their resources to implement environment-friendly strategies and spend large amounts of money (Welford 1998).

According to Buysse and Verbeke (2003), corporate environment-friendly strategies are classified in three types—reactive strategy, pollution prevention strategy, and environmental leadership strategy:

- i) **Reactive strategy:** most of the companies that deal with environmental regulations are relatively passive reactive; however, when environmental regulations change, companies follow the regulation and take the adaptive strategy (Buysse and Verbeke 2003). According to Hart (1995), this type of strategy is implemented to avoid penalty by regulation.
- ii) **Pollution prevention strategy:** companies deal with regulations more sensibly with a sound attitude than passive reactive companies; however, they stay active enough to effectively meet environmental regulations (Buysse and Verbeke 2003).
- iii) **Environmental leadership strategy:** companies have a high interest in environmental protection and put an effort to go beyond the regulations and consider this as a competitive advantage (Buysse and Verbeke 2003). Even though companies have already met the regulatory level, it takes into account the environment as an opportunity because of its expanding market share, exploring the new market with a promising future and cultivating corporate public relation. Kolk and Pinkse (2005) demonstrated that one of the prominent examples of environmental leadership strategy is the case of the oil company, Royal Dutch Shell, which is highly vulnerable in the emission regulation as it launched solar energy before setting stringent reduction plans implemented by the government not only to reduce emissions, but also to secure its competitive position in the longer run by acquiring new competencies.

Companies still remained their position as a pollution prevention strategist rather than toward an environmental leadership level despite the growing concern for the environment (Creyer 1997). The major reason behind this is that many researchers (Becker-Olsen, Cudmore, and Hill 2006; Welford 1998) already identified that there is an ambiguity in the correlation

between corporate green performance and its competitiveness (Becker, Cudmore, and Hill 2006; Creyer 1997; Vilanova, Lozano, and Arenas 2009; Welford 1998). In particular, Becker, Cudmore, and Hill (2006) showed that more than 80% of their respondents considered that companies should take roles in social initiatives and 76% felt those initiatives would benefit the companies themselves; however, the kind of research most studies (Luo and Bhattacharya 2006; Welford 1998) carried out were very general in scope—how exactly does it benefit the company and how it affects the value of the company.

Recently, the research for consumer attitude and purchase intention toward green products or green companies has been actively increasing. Consumer awareness of environmental consideration has rapidly emerged as a widely accepted concept because of the global climate change, thus drastically expanding the green market and urging more people avail green products (TerraChoice 2007). A “green product” is defined as a product that was manufactured and packaged to have a smaller impact on the environment or to contain less harmful ingredients (Chen and Chang 2012; Elkington, Hailes, and Makower 1988).

Consumers are now more than eager to make purchase decisions based on CSR and its level of environment-friendliness (Akenji 2014). The indicating evidence that proves the continuous expansion of the green market (Andrews and DeVault, 2009) and green consumerism (Chen and Chang 2012) are the more reasonable factors that companies should consider as they engage in green performance, rather than just asking for normative statements. Green consumerism is defined as when consumers purchase green products with their expectation for quality, cost, and convenience met all while acknowledging how a green product can positively affect in the solving of environmental problems (Ottman 1992).

As the ambiguous correlation between green performance and profitability is now more clearly defined, it can support the companies as they make changes that are more appropriate than ever before. With this, there are currently more studies that attempt to identify what factors influence consumers' attitude and purchase intention toward green products (or green performance) rather than just emphasizing CSR (Sweetin et al. 2013; Akenji 2014). There have been many studies that point out that having a green attitude does not necessarily translate to green action.

There are also many ongoing studies that attempt to match green attitude to green action (Berger and Corbin 1992; Berger and Kanetkar 1995). According to previous studies, environmental benefits can be obtained even through making green purchases is considered having an indirect effect and it takes a fairly long time before being perceived (Balderjahn 1988; Mainieri et al. 1997). Although consumers acknowledge and put trusty on environment benefits, it is not easy to judge whether green attitude is converted to green purchase. A consumer's psychological motivation is required to connect the green attitude toward green purchase (Chang 2011). In this regard, Berger and Corbin (1992) emphasized the role of faith to others and perceived consumer effect through the experience of recycling. Teisl, Rubin, and Noblet (2008) verify that psychological characteristics, such as the more highly perceived effectiveness of their efforts, and trusty, with others also engaging in environment-friendly action, are sensibly affecting consumer behavior and are becoming aware of the greater importance of the presence of environmental information of products. The psychological factors that are predicted to control the effects of consumer attitude and purchase intention on green products need to be classified and verified for the aforementioned growing concern.

As a result, this paper identifies four factors— i) Environment concern (Fransson and

Gärling 1999; Wesley Schultz 2001), ii) Self-expressive benefit (Aaker 1999; Mannetti, Pierro, and Livi 2004), iii) Social norm (Barr 2007; Peattie 2010; Schwartz 1977), and iv) Greenwashing (Furlow 2010; Bowen and Aragon-Correa 2014)—that are postulated to influence consumers' attitude and purchase intention toward green products.

III. THEORETICAL BACKGROUND

One of the most influencing theories to explain the behavior of a person is the theory of reasoned action (TRA) proposed by Fishbein and Ajzen (1975) to develop the previous Fishbein model. It is the variable that states that a person's behavior is determined a person's attitude, and subjective norm affects behavioral intention, increasing power to predict the attitude and behavior. Attitude is either the favorable or unfavorable feeling or emotional response toward a certain behavior and refers to the coherent tendency to learn (Ajzen and B.L. 1992). The subjective norm is the personal recognition of the pressure or expectation exercised by an influential person on the performance of a certain behavior (Fishbein and Ajzen 1975). TRA, which states that the full will of consumers only plays the decisive role in predicting the person's behavior, is difficult to be applied to actual life as it does not take into consideration the uncertainty beyond the person's will or social variables, such as the influence of other people (Ajzen 1991).

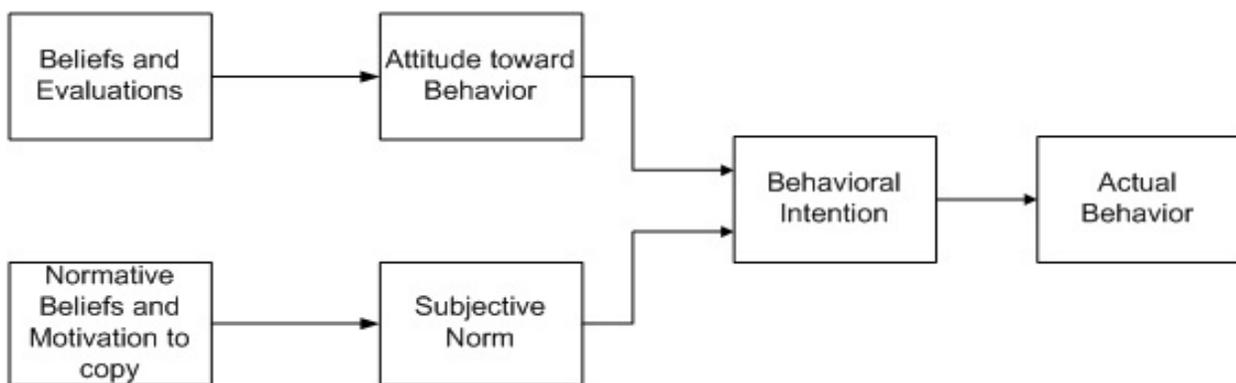


Figure 1. Theory of Reasoned Action

Source: Fishbein and Ajzen (1975)

Ajzen (1991) proposed the theory of planned behavior (TPB) by adding perceived behavior control (PBC), which indicates the degree to which the person thinks he or she can take control when performing a certain behavior to the leading variable and thus supplemented the critical point of TRA. PBC measures the degree of a person's perception on the performance of behavior (Kumar 2012). Therefore, it supplements the critical point of TRA based upon the premise that consumers' behavior is under the control of individuals and is easy to be applied to actual everyday life (Ajzen 1991).

The theory of planned behavior is a theory that takes the consumers' intention when performing a certain behavior into consideration and predicts consumers' behavior intention based on the attitude toward behavior, subjective norms, and perceived behavioral control (Conner and Armitage 1998).

First of all, as mentioned earlier, attitude toward behavior is either a favorable or unfavorable response to behavior and refers to the coherent tendency to learn. Attitude in the theory of planned behavior means the attitude toward a certain behavior while in the general theory, attitude is on the product (Albarracin et al. 2001; Conner and Armitage 1998).

Next, as also stated earlier, the subjective norm is the personal recognition of the pressure or expectation exercised by an influential person on the performance of a certain behavior and refers to social pressure exerted on a person or a social norm (Albarracin et al. 2001; Ajzen 1991).

Lastly, perceived behavioral control refers to the concept of how easily a person can perceive on actual behavioral performance. It also means the degree of perception on perceived ease or difficulty (Ajzen 1991). Ajzen (1991) also explained that behavioral intention is determined by the attitude toward behavior, subjective norms, and perceived behavior control.

As Ajzen (1991) added perceived behavior control in his previous study, which applied the previous theory of planned behavior or TRA, efforts to seek additional variables—except for three factors: the previous theory, subjective norms, and perceived behavioral control to predict behavioral intention—were made in the study on ethical consumption behavior and on a retailer’s strike concerning the recent study on the theory of planned behavior.

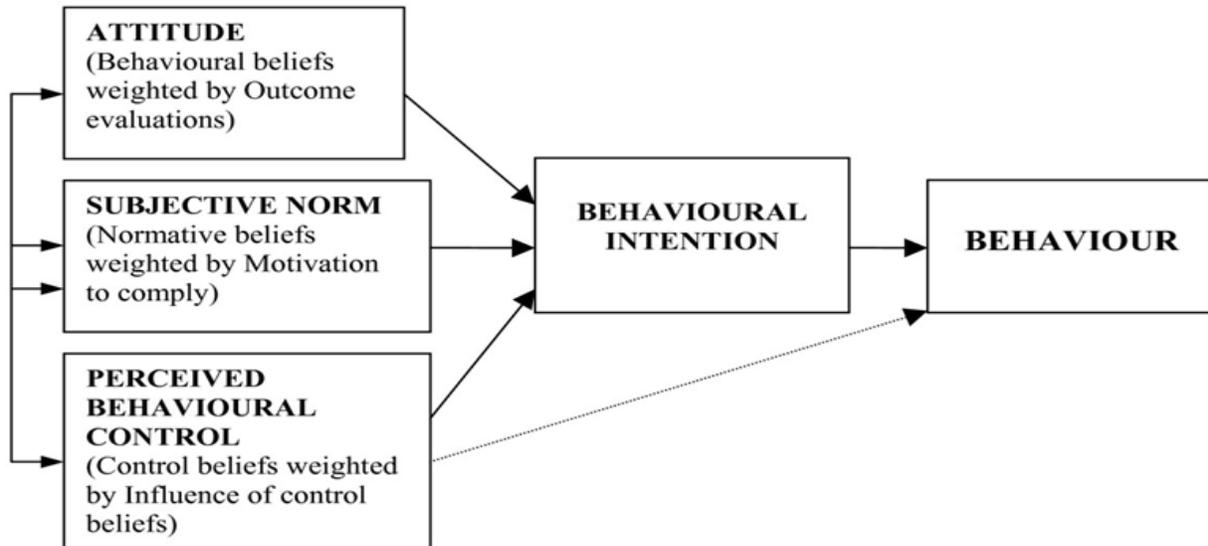


Figure 2. Theory of Planned Behavior

Source: Ajzen (1991)

Shaw et al. (2005) modified the theory of planned behavior to add the variables of ethical obligation and self-identity to “attitude toward behavior, subjective norms, and perceived behavioral control” to look into the purchasing intention on ethical products in order to comprehend the purchasing behavior of an ethical consumer. Ethical obligation is the ethical or social responsibility, and ethical self-identity is the concern on the ethical issue of environmental problems, leading variables affecting attitude as well as purchasing intention on ethical products (Terry, Hogg, and White 1999). Gilg, Barr, and Ford (2005) further considered ethical obligation, ethical self-identity, altruism, universality, perceived consumer effectiveness, and socio-

demographic variable as variables affecting purchasing intention on ethical products. They then stated that socio-demographic variable matters considering the influence of consumers' attitude precede purchasing intention(Diamantopoulos et al. 2003).

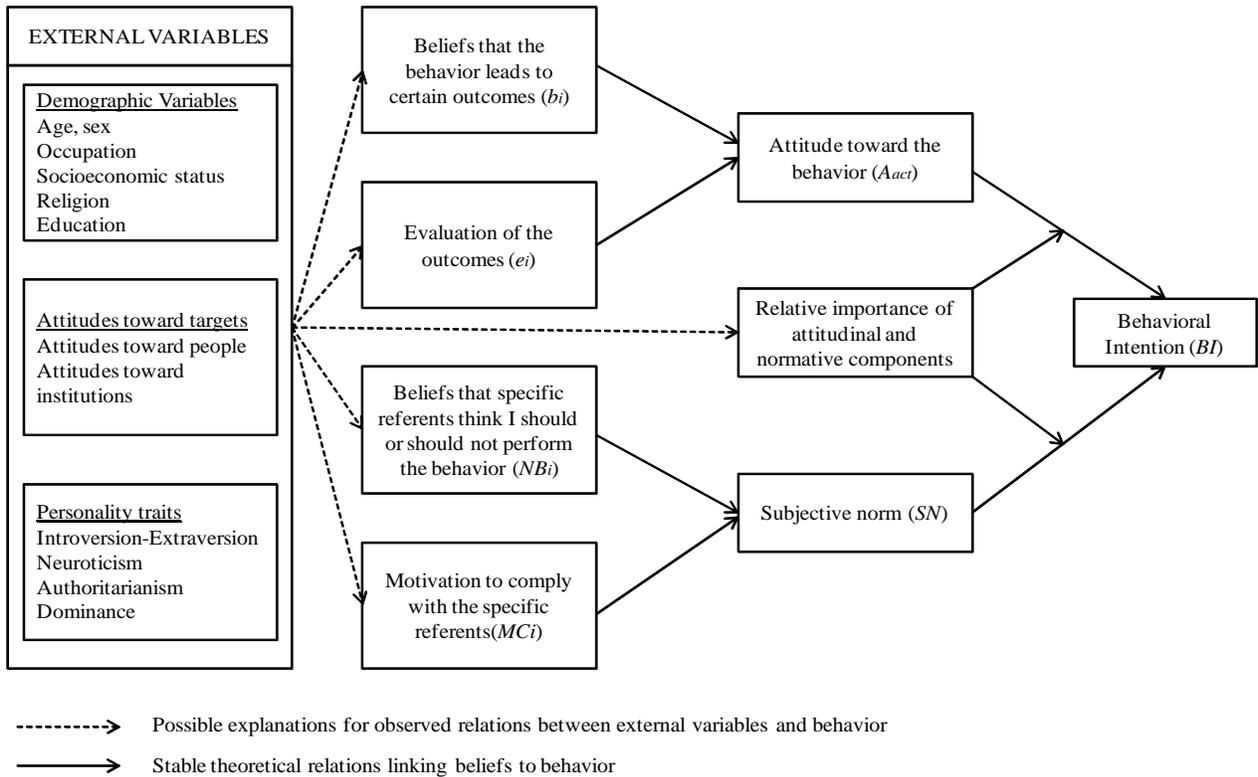


Figure 3. Extended Fishbein Model (Indirect Effects of External Variables on Behavior)

Source: Ajzen and Fishbein (1980)

IV. HYPOTHESES DEVELOPMENT

4.1 Proposed Model of the Study

This paper modified the extended Fishbein model. The extended Fishbein model is most widely used in the consumer behavior theory and is recognized for its outstanding effectiveness. However, this model is limited in terms of investigating actual behavior and how attitude is linked with consumers' repurchase action, which is considered most vital for companies. It was also found out that a high level of attitude and purchase intention does not guarantee a high level of satisfaction and loyalty (Chang and Fong 2010; Chen and Chai 2010). Therefore, this study modified the extended Fishbein model by inserting factors, such as satisfaction and loyalty (repurchase), to prove that consumers can be sustainable consumers. In addition, this study presents greenwashing as a variable to analyze how a negative perception affects attitude and purchase intention toward green products.

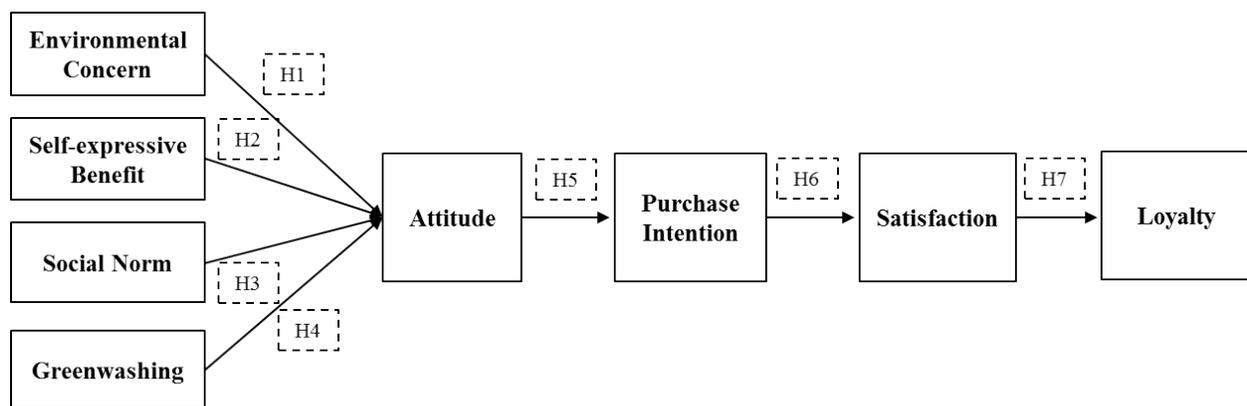


Figure 4. A Framework of the Effectiveness of Consumer Attitude and Purchase Intention on Green Products (Modified from the Extended Fishbein Model)

4.2 Hypotheses Development

4.2.1 The Effect of Environmental Concern on Overall Attitude

Environmental concern refers to the attitude toward environmental issues (Fransson and Gärling 1999). As environmental concern is believed to be the most exposed factor believed principal determinants of environment-friendly consumption (Balderjahn 1988), many studies have been investigated in different perspectives (Fransson and Gärling 1999; Hartmann and Apaolaza-Ibáñez 2012; Mainieri et al. 1997). A previous study by Hartmann and Apaolaza-Ibáñez (2012) found that consumers are very sensitive when it comes to the environment because the extreme weather and abnormal changes are easily witnessed and informed by the media. Although people do not pay attention to environment protection itself, people tend to give consideration to the environment quality when their own well-being is at stake—health, protection from disasters, etc. (Hopper and Nielsen 1991). Wesley Schultz (2001) also supported the classification of concern—one is altruism for others, the other is concern for oneself. Contrary to general conception, consumer attitude toward green products is strongly affected when concern for oneself is threatened (Hartman and Apaolaza-Ibáñez 2008).

The key research issue is whether environmental concern influences actual purchase behavior or not (Mainieri et al. 1997). Several studies have found a positive relationship between environment and purchase behavior (Chen and Chang 2012; Jin, Song, and Lee 2012). For example, Jin, Song, and Lee (2012) investigated the effects of the Fukushima (city of Japan) nuclear plant disaster caused by an earthquake on South Korean consumers' responses to domestic marine products. The research result showed that the import amount of marine products from Japan was reduced by 63% compared to same period of previous year (2011) and increased

the import amount of Chinese marine products, furthermore, demographic findings stated that the group who are more concerned about the environment and the consumption of green products related to health is families with children under the age of 14 and it is more relevant to women rather than men (Jin, Song and Lee 2012).

The correlation between environmental concern and demographic variables have also been studied for a long time. Van Liere and Dunlap (1980) argued that variables, such as age, sex, income, and education, are relatively clear ways to collect data and perform an analysis on the consequence for attitudes related to environmental concern on green products.

In their study, it was found that young consumers have greater concern about the environment than older consumers (Mainieri et al. 1997). Considering the gender issue, women are more sensitive toward environment concern than men (Mainieri et al. 1997; Stern, Dietz, and Kalof 1993). However, the status of income and education is much less obvious as a determinant factor for influencing environment concern (Arcury and Christianson 1990; Fransson and Gärling 1999; Van Liere and Dunlap 1980). Therefore, this study argues that environmental concern would affect overall attitude and thus proposes the following hypothesis:

H1. Perception on environmental concern positively affect consumer attitude for green products.

4.2.2 The Effect of Self-Expressive Benefits on Overall Attitude

The effect of psychological benefits for purchase attitude and intention has received less academic research attention because of the difficulty to set the standard and be quantified because of the variety of personal traits. Recently, studies were carried out regarding the

correlation between the psychological factor and consumer attitude by segmented psychological factor on the basis of warm glow and self-expressive benefits (Hartmann and Apaolaza-Ibáñez 2012; Roberts, 1998; Swenson and Wells 1997).

“Warm glow” is the positive emotional feeling people get from helping others (Swenson and Wells 1997). In other words, consumers experience individual benefits after the contribution of behavior without an intended purpose (Hartmann and Apaolaza-Ibáñez 2012; Roberts, 1998; Swenson and Wells 1997). Green consumers who expect warm glow achieve satisfaction through the improvement of environment quality (Roberts 1998).

Self-expressive benefits are rewards that one gets when he or she displays his or her behavior in an attempt to expose individual characteristics and preferences to others and to feel a sense of value, expecting credit from others (Hartmann and Apaolaza-Ibáñez 2012; Kahneman and Knetsch 1992). Belz and Dyllik (1996) found that individual purchases of environment-friendly products come with the opportunity to show their concern for environment to others.

In the general belief, the benefits of warm glow feelings may impact more strongly than any other factors on consumer attitude and purchase intention; however, other empirical studies show that people have more willingness to consume and are willing to pay a higher price for self-expressive benefits because they want to feel better about themselves based on psychological factors, which demonstrates that they do not mainly care about the environmental impact of their decision (Hartmann and Apaolaza-Ibáñez 2006). Therefore, this study attempts to investigate whether self-expressive benefits are still effective in the case of green products and proposes the following hypothesis:

H2. Self-expressive benefit positively affects consumer attitude for green products.

4.2.3 The Effect of Social Norm on Overall Attitude

Consumption is an organic connection influenced by circumstances, such as culture, education, preference, and infrastructure, of the society in which we live in. It is not determined just for tangible factors, such as price, brand, and quality (Zukin 2004). People have free will; however, people often restrain their free will to keep better living standards. Therefore, understanding of social disciplines (so-called social norm) is also pivotal to identify the factor that influences consumer behavior (Burgess et al. 2003).

What is a norm? A norm is defined as an expected behavior in a particular social situation that is implemented by a socialized individual's private and public actions in the perspective of how most people ought to act in a situation (Peattie 2010; Schwartz 1977). Cialdini, Kallgren, and Reno (1991) also mentioned that social norms motivate the individuals to act socially effective or observe an adaptive behavior in a certain situation.

The norm activation theory (Schwartz 1977) can also be applied in the case of consumer attitude and purchase intention. The violation of social norm degrades one's satisfaction even though the goods or services suit your expectation (Zukin 2004). In contrast to this, Hopper and Nielsen (1991) argue that social norms had not much influence in an individual's behavior as an independent variable. To maximize optimal equilibrium, awareness of the consequences and direction should be raised because, the influence of social norms toward consumer behavior will not have a strong impact when there is low awareness in these subjects (Park et al. 2013; Roberts 1998).

However, in a U.K. Case Study of Household Waste Management, Barr (2007) demonstrates that people engage in recycling as householders acknowledge it a social norm. Nonetheless, the reduction of consumption and reusing were not actively implemented by householders as their

concept of recycling as a social norm was weak. An interesting investigation conducted by Goldstein, Cialdini, and Griskevicius (2008) found that just posting a message regarding the environmental advantages of the reduction of towel consumption to guests is less effective than emphasizing the normative way stating that “the majority of guests had reused their towels.” The latter was identified to have a stronger impact to hotel guests, resulting to more people reusing their towels. Goldstein, Cialdini, and Griskevicius (2008) also found that the effect of the normative way raises their awareness of following the social norm as they process the term “majority of guests” and adopt it without giving it much thought. Therefore, this study investigates that the same result, which is proposed in previous studies (Schwartz 1977; Culiberg and Bajde 2013; Devinney, Auger, and Eckhardt 2010), can be expected in the case of green products. Based on this view, it is hypothesized that:

H3. Social norms positively affect consumer attitude for green product.

4.2.4 The Effect of Greenwashing on Overall Attitude

Recently, more and more companies are take an environment-friendly stance than ever before. This is due to the rising worldwide issue that is the need for sustainability (Chang 2011). As the number of environment-friendly companies continue to increase rapidly, instances of greenwashing has also drastically increased following the proliferation of green consumers and the green market (Bowen and Aragon-Correa 2014; Laufer 2003; Song et al. 2011).

Greenwashing is the act of misleading consumers regarding the environmental practices of a company or the environmental benefits of a product or service (Delmas and Cuerel Burbano

2011; TerraChoice 2009, Chen and Chang 2013). As companies strive to achieve competitiveness for their sustainable growth, they see the green trend as a huge opportunity to meet their needs; thus, they differentiate their products or services with the image that taking advantage of such products or services will benefit the environment.

Consumers are becoming very distrustful and skeptical of corporations as many firms advocate themselves as environment-friendly although they fail to prove such in their actions and performance (Furlow 2010). Previous research suggests that many products that make environmental claims commit at least one of the “seven sins of greenwashing” (TerraChoice 2009). To make matters worse, some globally well-known companies, such as BP (Beyond Petroleum plc) has been advertising itself as a company with one of the most highly motivated and well-designed environment strategy; however, it is also responsible for one of the worst oil spills in history (Nyilasy, Gangadharbatla, and Paladino 2013).

According to Delmas and Cuerel Burbano (2011), greenwashing can have negative effects on stakeholders; for example, the loss of credibility of consumers and investors related to green products and the distrust of stakeholders to receive benefits from the environment-friendly performance of companies. Several studies (Chang 2011; Furlow, 2010; Nyilasy, Gangadharbatla, and Paladino 2013) insist that the growing cases of greenwashing is not only misleading consumers but also makes the identity of companies as eco-friendly questionable. The result is that the companies that truly implement green strategies lose their competitiveness and green products are no longer relevant to consumers (Zimmer, Stafford T., and Stafford M. 1994). Therefore, it is very important to find out how perception on greenwashing affect consumer attitude. Based on this view, it is hypothesized that:

H4. Negative perception on greenwashing positively affect consumer attitude for green products.

4.2.5 The Effect of Consumer Attitude on Purchase Intention

According to Eagly and Chaiken (2007), the definition of attitude is a “psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor” while Allport (1935) defined attitude as “a mental and neural state of readiness, which exerts a directing, influence upon the individual’s response to all objects and situations with which it is related.”

Irland (1993) mentions that consumers’ purchase intentions are dependent upon his or her environmental attitudes in the case of wooden products. Findings of Irland (1993) further support this general belief: The greater the consumers’ ability to contribute to the improvement of the quality of the environment through purchasing green products, the higher the consumers’ purchase intention toward green products are even if they need to pay more than usual. Ajzen (1991) insisted that a positive attitude toward green products strongly support purchase intention. Previous studies find that relevant issues of consumer attitude affect consumer satisfaction (Walker, sisto, and Mcbain 2008); therefore, this study extended the general idea to green purchase intention and proposes the following hypothesis:

H5. Positive consumer attitude toward green products positively affect green purchase intention.

4.2.6 The Effect of Purchase Intention on Satisfaction

Morrison (1979) defines that purchase intention is “the likelihood that a consumer would buy a particular product resulting from his or her environmental needs.” Lu, Zhao, and Wang

(2010) indicate that consumer experience positively affects consumer purchase intentions.

Previous literature indicates that if purchase intention is higher, satisfaction is also higher even if the products or services have a gap with one's expectations and even if one pays more than usual (Krystallis and Chrysohoidis 2005). This means that this is a new competitiveness factor, unlike conventional ones, such as price or quality (Laroche, Bergeron, and Barbaro-Forleo 2001). Many companies seek to identify the factors that influence purchase intention to link consumer satisfaction. Laroche, Bergeron, and Barbaro-Forleo (2001) also find that satisfaction on green products are likely to be relatively high among females, married, and with at least one child living at home. This means that this group is more vulnerable to the deceptive performance of companies to affect consumer purchase intention. Therefore, this study investigates whether general purchase intention affect satisfaction in relation to green products and proposes the following hypothesis:

H6. A higher level of purchase intention affects a higher level of satisfaction for green product.

4.2.7 The effect of satisfaction on loyalty

Several studies found an association between consumer satisfaction and consumer loyalty (Butcher et al. 2002; Gountas and Gountas 2007; Luo and Bhattacharya 2006; Oliver 1981). A high level of product satisfaction, and excellent brand and company performance are naturally linked to positive outcomes, such as repeat purchase and long-term consumers (Suprenant 1977). To estimate future consumer purchase, satisfaction is one of the most important factors because of the repeating purchase pattern (Oliver 1981). The consumption experience influence the

perceived value to the consumers as it creates a tendency for the consumers to purchase the product repeatedly. As the company acquires the loyalty of a consumer, it is able to estimate higher profits and a larger market share (Dick and Basu 1994). Reichheld and Sasser (1989) find that increasing loyal consumers around 5% can expect that 30–85% of its profitability depend on the industry.

Previous studies have been made to identify the relevant issues in consumer satisfaction and consumer loyalty (Hallowell 1996; Chen 2013). However, it remains unclear whether the general belief that states that “customer satisfaction positively affects loyalty” can be applied in the case of green products. Therefore, this study attempts to investigate this and proposes the following hypothesis:

H7. A higher level of satisfaction affects a higher level of loyalty for green products.

V. METHODOLOGY

To analyze the effects of customer attitude and purchase intention on green products, this study adopted quantitative research, which was conducted through a survey. The survey questionnaire was designed based on the hypothesis from research questions. The primary goal of this quantitative research is to investigate the effects of customer attitude and purchase intention on green products. This study will measure the correlation among factors, such as environmental concern, self-expressive benefit, social norm, greenwashing, and attitude and intention toward green performance. Moreover, this study investigates links among satisfaction and loyalty for the reader's deeper understanding.

In particular, about 45 survey questions were developed based on the hypothesis, and an online survey Web site, "Qualtrics," was used to conduct the quantitative research. A 7-point scale was adopted to each question. To analyze the proposed hypothesis, this study estimates the factor analysis, the multilinear regression analysis, and the analysis of variance (ANOVA) using SPSS. For factor analysis, the extraction method and Varimax rotation methods with Kaiser normalization are used, allowing the most significant data to emerge. Factor scores and factor coefficient from factor analysis were used for the regression analyses.

The survey questionnaire was asked in English, the sample size was 101, and the respondents were made up of people with different nationalities who are over 20 years old. These people were randomly chosen as this paper aims to represent a general idea toward green performance rather than identifying a specific group, place, or idea. To assess the effects of customer attitude and purchase intention on green product comprehensively, this study's survey

questionnaire was classified into eight parts by variables, excluding general and demographic questions.

VI. DATA ANALYSIS

6-1 Respondents Demographics

Of the 101 respondents, 28.7% were female and 71.3% were male; about 63.4% were Korean and 36.6% foreigners; and 50% are married and 50% are single. Approximately 43.1% reported that their highest educational level was as undergraduates in university, 53.9% had a graduate degree, and 2.9% had a PhD. About 5.9% were less than 25 years old; 30.4% were between the ages of 26 to 30 years old; 52.9% were between the ages of 31 to 40 years old; 8.8% were between the ages of 41 to 50 years old; and 2% were more than 50 years old. About 13.7% stated they were students, 38.2% were public sector employees, 44.1% were private sector employees, 1.0% were NGO members, 2.9% were members of international organizations. About 23.8% of respondents stated their annual incomes were less than USD 19,000; 26.7% between USD 20,000 to 39,000; 29.7% between USD 40,000 to 59,000; 9.9% between USD 60,000 to 79,000; 6.9 between USD 80,000-99,000; and 3.0% were more than USD 100,000.

6-2 Reliability Test: Cronbach's Alpha

In order to test the reliability for each item of the proposed model, this paper applied for Cronbach's alpha as reliability coefficients (see Table 1). To measure "environment concern," five questions were asked and its alpha is .786—all questions related to environmental concern were implied to have consistency. To measure "self-expressive benefit," five questions were asked and its alpha is .861—all questions also have consistency. To measure "social norm," five questions were asked and its alpha is .747—all five questions five have good consistency. For

“greenwashing,” four questions were used and its alpha is .908—these six questions have good consistency. To measure “purchase intention,” three questions were asked and its alpha is .775—these three questions have good consistency. Last but not least, to measure “satisfaction,” four questions were asked and its alpha .892—these four questions have good consistency. Consequently, all questions were appropriately asked to measure each item and the data from the survey can be used for statistical analysis.

Table 1. Reliability Coefficients

Items	Reliability Coefficients
1. Factor for environmental concern (5 questions)	0.786
2. Factor for self-expressive benefit (5 questions)	0.861
3. Factor for social norm (5 questions)	0.747
4. Factor for greenwashing (6 questions)	0.775
5. Factor for attitude (4 questions)	0.908
6. Factor for purchase intention (3 questions)	0.775
7. Factor for satisfaction (4 questions)	0.892

6-3 Hypotheses Testing

The study validates the factors of environment concern, self-expressive benefit, social norm, greenwashing, attitude, purchase intention, satisfaction, and loyalty. This study applied factor analyses to check the validity of constructs for a model. Using principal components analyses as the extraction method and Varimax rotation methods with Kaiser normalization, the most relevant data were identified. The result of the factor analyses shows that items represent major variables with Eigen values over 1.00. Table 2 shows factor analysis results for factors, such as self-expressive benefit, environmental concern, greenwashing, and social norm, while Table 3 shows the factor analysis results for attitude.

Table 2. Factor Analysis of Environmental Concern, Self-expressive Benefit, Social Norm, and Greenwashing

Items		Component			
Factors	Scale Items	1	2	3	4
Self-expressive Benefit 1	I feel that I am a better person than others when I am involved in green performance.	.799			
Self-expressive Benefit 5	My friends perceive me as someone to be concerned about the environment by my own participation.	.775			
Self-expressive Benefit 4	I can express my environment conservation through green performance (ex. Use of green products).	.775			
Self-expressive Benefit 3	I believe that buying green products helps to prevent the environment crisis.	.634			
Self-expressive Benefit 2	Being rewarded psychologically is the most important factor in green performance.	.584			
Environmental Concern 4	I think that obtaining information about green performance is necessary.		.817		
Environmental Concern 1	I think that we are facing serious environmental problems.		.809		
Environmental Concern 3	Environmental concern is an important factor for a company's CSR (corporate social responsibility).		.701		
Environmental Concern 2	Having news or information on the environment raises awareness of environmental concern.		.589		
Greenwashing 4	I think that greenwashing companies should be penalized.			.829	
Greenwashing 5	I think that distrust can lead to the collapse of the emerging green market.			.793	
Greenwashing 6	I think that we should pay more attention to greenwashing.			.759	
Greenwashing 2	If greenwashing is prevalent in the market, I am not going to buy green products.			.715	
Social Norm 2	I tend to do what my important others (such as family, friend) think I should do.				.801
Social Norm 3	If most people who are important to me decide to follow a certain rule, I would support their decision.				.763
Social Norm 5	If my income status or rank is higher, I should be more concerned about green performance.				.592
Social Norm 1	I purchase green products because of social pressure.				.590
Social Norm 4	I think that an individual's behavior is highly influenced by social norms.				.568

Table 3. Factor Analysis of Attitude

Items		Component
Factors	Scale Items	1
Attitude 1	Overall, I tend to pay attention to green performance.	.939
Attitude 2	I think that it is important to comply with green performance.	.899
Attitude 3	I believe that better green performance enhances the quality of life.	.881
Attitude 4	I think my interest in green performance is relatively high.	.829

Furthermore, this study applied analyses, such as regression analysis and the analysis of variance (ANOVA). Table 4 provides the results of regression analyses using factor scores for the effects of types of environmental concern, self-expressive benefit, social norm, and greenwashing on attitude. In general, the results of the ANOVA find the models significant at the .01 level with $F = 74.225$ ($r\text{-square} = .754$). The result of the regression analyses demonstrated that the effects of environment concern, self-expressive benefit, social norm, and greenwashing on attitude are all accepted (H1–H4).

Table 4. Regression Analysis to Estimate the Effects of Factors on Attitude toward Green Products

Variable(Independent → dependent)	Standardized Coefficients (t-value-Sig)
Environmental concern → Attitude (H1)	.465(9.226***)
Self-expressive benefit → Attitude (H2)	.583(11.576***)
Social norm → Attitude (H3)	.368(7.312***)
Green washing → Attitude (H4)	.242(4.800***)

*** Significant at 0.01 level

This study also applies regression analyses for the impacts of attitude on purchase intention. As shown in Table 5, this study demonstrated the effects of attitude on purchase intention (H5). The results of the analysis for the effects of attitude to the satisfaction find the models significant at the 0.01 level with $F = 113.352$ ($r\text{-square} = .532$). The result of the regression analyses demonstrated that the effects of attitude on purchase intention are accepted (H5).

Table 5. Regression Analysis to Estimate the Effects of Attitude Affect on Purchase Intention

Variable (Independent → dependent)	Standardized Coefficients (t-value-Sig)
Attitude → Purchase Intention (H5)	.729(10.651***)

*** Significant at the 0.01 level

This study also applies regression analyses for the impacts of purchase intention on satisfaction. As shown in Table 6, this study demonstrated the effects of purchase intention on satisfaction (H6). The results of the analysis for the effects of satisfaction on purchase intention find the models significant at the 0.01 level with $F = 73.888$ ($r\text{-square} = .425$). The result of the regression analyses demonstrated that the effects of purchase intention on the satisfaction are accepted (H6).

Table 6. Regression Analysis to Estimate the Effects of Purchase Intention on Satisfaction

Variable (Independent → dependent)	Standardized Coefficients (t-value-Sig)
Purchase Intention → Satisfaction (H6)	.652(8.596***)

*** Significant at 0.01 level

This study also applies regression analyses for the impacts of satisfaction on loyalty. As shown in Table 7, this study demonstrated the effects of satisfaction on loyalty (H7). The results of the analysis for the effects of satisfaction to loyalty find the models significant at the 0.01 level with $F = 114.363$ ($r\text{-square} = .534$). The result of regression analyses demonstrated that the effects of satisfaction on the loyalty are accepted (H7).

Table 7. Regression Analysis to Estimate the Effects of Satisfaction on Loyalty

Variable (Independent → dependent)	Standardized Coefficients (t-value-Sig)
Satisfaction → loyalty (H7)	.730 (10.694***)

*** Significant at 0.01 level

VII. CONCLUSIONS

7-1 Summary of Results

This paper aims to explore the effects of customer attitude and purchase intention on green product through the modified extended Fishbein model. The results of the proposed model were shown in Figure 5. Seven paths estimated were significant. This study found that not only factors, such as environmental concern, self-expressive benefit, social norm, and greenwashing, positively affect attitude toward green products but also other factors, such as attitude, purchase intention, satisfaction, and loyalty positively are affected by sequential order.

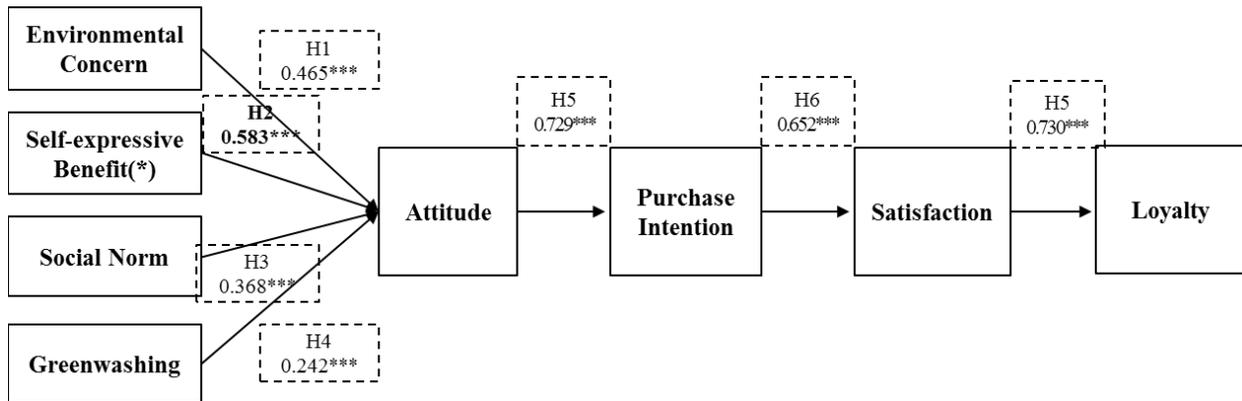


Figure 5. The Results of the Proposed Model, *** $p < 0.01$.

This study found that significant relationships based on quantitative analysis, such as i) how environmental concern affect consumers' overall attitude; ii) how self-expressive benefits toward green performance affect consumers' overall attitude; iii) how the degree of perception on the social norm affect consumers' overall attitude; iv) how perceived greenwashing affect consumers' overall attitude; v) how the degree of consumers' overall attitude affect green

purchase intention; vi) how green purchase intention affect satisfaction; vii) how that the satisfaction on green products affects loyalty in the product or company. Therefore, as shown in Table 8, H1, H2, H3, H4, H5, H6, and H7 were all supported in this paper. In particular, this study found that self-expressive benefit is the strongest factor that affects attitude toward green products among all four factors— environmental concern, self-expressive benefit, social norm, and greenwashing.

Table 8. Summary of the Effects of Hypotheses Testing Results

Hypotheses	Result
H1. Perception on environmental concern positively affect consumer attitude for green products.	Accepted
H2. Self-expressive benefit positively affects consumer attitude for green products.	Accepted
H3. Social norms positively affect consumer attitude for green products.	Accepted
H4. Negative perception on greenwashing positively affect consumer attitude for green products.	Accepted
H5. Positive consumer attitude toward green products positively affect green purchase intention.	Accepted
H6. A higher level of purchase intention affects a higher level of satisfaction for green products.	Accepted
H7. A higher level of satisfaction affects a higher level of loyalty for green products.	Accepted

7.2 Theoretical and Managerial Implications

This study presents several theoretical and managerial implications and aims to contribute to the development of the relationship between customer attitude and purchase intention in the perspective of green products. To verify the aforementioned hypotheses, the study modified the extended Fishbein model. The result obtained in this study gives the implication that taking self-expressive benefit into consideration is the primary objective to ensure success in green strategies in the perspective of the government or environmental companies. Based on consideration, the most significant distinction for this study is the fact that “greenwashing” is

included as an independent variable that influences customer attitude as it is in the proposed model. Here, it was also identified that greenwashing had a positive effect on customer attitude. Therefore, this study provides implication how issues on greenwashing needs to be importantly addressed the research of consumer behavior on green products.

The need to take care of the environment is given more and more attention. Relying on international organizations and governments today regarding environmental conservation efforts brings about greater difficulties than in the past because of rising self-interest and principal-agent problems. Therefore, Responsibility for such efforts is either often thrown at corporations under their obligation or enforced to individuals (customers) through methods, such as paying higher prices or using low-quality products in the name of being green. This study considered that obligation or imposed way of participation without considering stakeholder needs is inefficient solutions to tackle the environment issue (Bamberg 2003). Therefore, identifying why people need to engage themselves in green performance was seen as way to induce the voluntary participation of stakeholders and to form a kind of governance that will facilitate the tackling of the environment issue at hand (Lemos and Agrawal 2006).

First, in the perspectives of companies, green performance is not simply a reaction to social pressure or a regulatory tool to avoid committing any environment-related violations. Companies acknowledge that the green market is rapidly growing and see this as an opportunity to develop competitiveness with differentiated products and to accumulate loyal customer in the long run; with this, maximizing the profit made through this allows the companies to achieve sustainable growth.

Second, in the perspective of the government, environmental awareness has recently been gaining the attention of stakeholders, which is proven by the rapidly expanding green market; thus, the government should consider removal of greenwashing in the market. There are reasons

for companies to engage in greenwashing such as uncertain regulation together with social or political pressure. The government should set the policy for greenwashing in greater detail and should be strict in ensuring that greenwashing does not affect the growing green market (Andrews and David 2009). Once greenwashing is prevalent in the market, environment-friendly companies will lose their competitiveness and will no longer observe green performance. Increasing greenwashing cases may also cause more companies to take unfair advantage of being environment-friendly and this will only lower the consumers' trust in green performance and render it meaningless.

Last but not least, the individual's role in green performance is considered more important today than ever before. As mentioned in the literature review (Buijsse and Verbeke 2003; Bae 2009) how excellent the implemented green policies are, if individuals do not follow them, such policies will be ineffective. In other words, individuals (customers) should acknowledge that they are the key drivers in green performance, strive to perceive accurate knowledge in the field, and be proud as a proactive stakeholder.

This study measures the hypotheses by means of online survey. Only cross-sectional data were provided and although the sample of respondents was diverse, its size was relatively small to meet the generalizability. Recognizing the limitations in this measurement system, this study aims to contribute to future studies that strive to investigate the effects of green consumerism as well as to guide policymakers or marketers as they set environment-friendly strategies. In particular, this study was able to reveal that greenwashing had a direct effect on customer attitude and purchase intention; with this, future research needs to be carried out in terms of measuring the effects of greenwashing and identifying high-incidence product groups to prevent the collapse of the green market.

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APPENDIX

Survey Question

Thank you for participating in this survey. The purpose of this survey is to analyze the relationship between the customer attitude and purchase intentions for green products. Especially the survey is designed to find out the factor which can influence positive or negative impact in consumer's purchase intentions. And then help the company setting the green strategies or suggesting the idea to policy maker. Participation in this survey is strictly voluntary. If you have any questions regarding this survey feel free to contact kdisgil@gmail.com.

1. I am interested in Green performance.

Green performance : Environment friendly management, Green purchase, Green product, Reduction of carbon emissions, Conservation of resources. Mitigate Climate change, etc.

2 Yes ② No

2. What factor makes it difficult to be involved in green performance? (Select one)

- ① Lack of trusty ② Lack of information
- ③ Financial difficulty ④ Indifference of green performance
- ⑤ others :

3. Where do you mostly get information about Green performance? (Select one)

- ① Public advertisement ② Internet
- ③ Newspaper ④ Conference or Forum
- ⑤ Others :

4. I care about green performance because of (Select one)

- ① Environmental Concern ② Self-expressive benefit
 ③ Social norm ④ Green washing
 ⑤ Others:

Greenwashing is defined as intentionally misleading or deceiving consumers with false claims about a firm's environmental practices and impact

5. Environmental concern

5-1. I think that we are facing serious environmental problem.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

5-2. Having news or information on environment raises awareness of environment concern.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

5-3. Environmental concern is an important factor for a Company's CSR(Corporate Social Responsibility).

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

5-4. I think that obtaining information about green performance is quite necessary.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

5-5. I often get information about green performance.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

6. Self expressive benefits

6-1. I feel that I am a better person than others when I am involved in green performance.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

6-2. Being rewarded psychologically is the most important factor in green performance.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

6-3. I believe that buying green product helps to prevent environment crisis.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

6-4. I can express my environment conservation interests through Green performance.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

6-5. My friend perceives me as someone to be concerned about the environment by my participation in Green performance.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

7. Social Norm

7-1. I purchase green products due to Social pressure.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

7-2. I tend to do what my important others(such as family, friend) think I should do.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

7-3. If most people who are important to me decide to follow the certain rule, I would support their decision.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

7-4. I think that the individual's behavior is highly influenced by Social norm.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

7-5. If my income status or rank is higher, I should be more concerned about green performance.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

8. Green washing

Greenwashing is defined as intentionally misleading or deceiving consumers with false claims about a firm's environmental practices and impact.

8-1. I think that the concept of green washing is still new to me.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

8-2. If greenwashing is prevalent in the market, I am not going to buy Green products.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

8-3. I think that the reason we can not recognize green label authorized by government is due to a lack of public relations.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

8-4. I think that Green washing company should be penalized.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

8-5. I think that distrust can lead to collapse of emerging green market.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

8-6. I think that we should pay more attention to greenwashing.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

9. Attitude

9-1. I think that it is important to comply with Green performance.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

9-2. Overall, I tend to pay attention to Green performance.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

9-3. I believe that better green performance enhances quality of life.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

9-4. I think my interest in green performance is relatively high.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

10. Purchase Intention

10-1. It is likely that I will buy Green products rather than products without consideration of green performance.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

10-2. I am relatively willing to buy green performance company's products than company products that do not consider green performance.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

10-3. Published CSR(Corporate Social Responsibility) report affect my purchase intention.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

11. Satisfaction & Loyalty

11-1. I will purchase the Green product next time when I need a product.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

11-2. I am satisfied with green performance products.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

11-3. Overall, The green products meet my expectations.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

11-4. I had a positive perception on green products after I use it.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

11-5. I will recommend Green performance to others.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

<Demographic Question>

1. Please indicate your gender.

- ① Male ② Female

2. What is your nationality?

- ① Korean
② Others: _____

3. Please indicate your marriage status.

- ① Single ② Married

4. Do you have children?

- ① Yes ② No

5. Please indicate your highest education level.

- ① Graduated from high school
② Graduated from University
③ Master degree
④ Ph.D
⑤ Others :

6. Please indicate your age group.

- ① Less than 25 years old
② 26 to 30 years old
③ 31 to 40 years old
④ 41 to 50 years old
⑤ More than 51 years old

7. What is your occupation?

- ① Student
- ② Employee(Public sector)
- ③ Employee(private sector)
- ④ NGO(Non government organization)
- ⑤ IO(International organization)
- ⑥ House wife
- ⑦ Others :

8. What is your annual household income ?

- ① Less than USD 19,000(19,990,000 KRW)
- ② USD 20,000 ~ 39,000(20,000,000 ~ 39,990,000 KRW)
- ③ USD 40,000 ~ 59,000(40,000,000 ~ 59,990,000 KRW)
- ④ USD 60,000 ~ 79,000(60,000,000 ~ 79,990,000 KRW)
- ⑤ USD 80,000 ~ 99,000(80,000,000 ~ 99,990,000 KRW)
- ⑥ More than USD100,000(100,000,000 KRW)

-Thank you for your kind-