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PERSONAL VALUES, PERCEIVED CONSUMER EFFECTIVENESS AND DEMOGRAPHIC EFFECTS ON GREEN PURCHASING BEHAVIOR OF KOREAN CONSUMERS

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Abstract

This study is an examination of personal values, perceived consumer effectiveness (PCE), and demographic factors for their influence on Korean consumers' green purchasing behavior. A survey conducted in Seoul, Korea, meaningfully supports the proposed relationships between value orientations, PCE, education level, and green purchasing behavior. Specifically, structural-equation modeling confirms that egoism directly and negatively influences green purchases, and that PCE moderates the indirectly positive effects of altruism and biospherism. Education also drives pro-environmental choices. Practical implications for green marketers are discussed, and suggestions for future research are provided.

Keywords: demographics, green purchasing behavior, perceived consumer effectiveness, value orientations

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1. Introduction

Various scientific disciplines have recognized that consumers play an essential role in environmental protection (Guedes et al., 2017; McGougall, 1993). Consequently, many studies have focused on pro-environmental consumption behaviors. Throughout Korea's period of rapid industrialization, economic development far superseded environmental protection and caused significant environmental damage in terms of air pollution, overused water resources, and lost animal habitat. As South Korea moves toward a developed economy, priorities are shifting. Since the late 1980s, Koreans have become deeply aware of environmental threats and of pressing needs to change their behavior. Over the past decade, local grassroots

organizations have raised awareness of environmental problems. Recent administrations have proposed major initiatives to offer cleaner energy, improve air quality, and encourage a green economy. The Korean government has shown serious commitment to combating environmental problems by enacting anti-pollution laws and applying strict rules for recycling and energy conservation (e.g. Sanders, 2010). Despite fairly comprehensive environmental laws, regulations, and rules in Korea, their effectiveness at the implementation level still heavily depends on voluntary participation and cooperation. To foster green sustainable development, consumers must be highly ecologically conscious and transform their consciousness into corresponding eco-friendly green purchases, which will then motivate organizations to

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produce green products and services and practice green marketing.

However, green marketers are challenged by the fact that environmental attitudes are often incongruent with behavior (Bamberg, 2003; Cao et al., 2017; Crane, 2000; Hanas, 2007; Pickett-Baker and Ozaki, 2008; Wong et al., 1996). A survey of green behavior in Korea indicated a considerable gap between consumers' attitudes and behavior (TNS, 2008). Korea's green markets are growing slowly, so it is essential to understand what drives people to choose eco-friendly alternatives and how to persuade them to make green choices. Previous studies have provided some determinants of green consumerism, but most green literature has reflected attitudes and behaviors of Western rather than non-Western consumers. Although the imbalance has recently been much improved, further research is needed to examine outcomes where cultural differences cause varying levels of awareness of environmental problems, intentions to engage in pro-environmental behavior, and actual environmental engagement (e.g., Cordano et al., 2010; Kim et al., 2009; Laroche et al., 1996; Milfont, 2012; Schultz and Zelezny, 1998). Following previous research suggestions, in this study we tried to identify the factors influencing Korean consumers' green choices. To this end, we examine general patterns of green purchasing behavior and actual frequency of buying green products in association with their potential antecedents, such as demographics and value orientations that determine differences in environmental engagement across cultures. Also, we consider Korean perceptions of self-efficacy in the relationship mentioned above as they influence green choices.

2. Literature review and hypotheses

2.1. Value orientations

Since the 1990s, consumers have become increasingly aware that products or services have environmental consequences, and researchers have begun examining socially conscious purchasing behaviors (e.g., Grunert and Juhl, 1995; Kim et al., 2009; Vermeir and Verbeke, 2008) based on buyers' motivations to purchase eco-friendly products. Generally, when consumers consider purchasing green products, they first assess whether they or their household will derive commensurate benefits relative to environmental costs (Hill and Lynchehaun, 2002; Fotopoulos and Krystallis, 2002). Green choices often cost more and are less convenient, so consumers must look beyond benefits to the single consumer and focus instead on future benefits for many, such as in cleaner air and water. Thus consumers who have other-oriented basic value orientations rather than self-oriented value orientations might be more strongly motivated to adopt green behaviors (McCarty and Shrum, 2001). For example, consumers who deeply value nature and the welfare of others can be more motivated to do their part to protect the environment.

Values, defined as trans-situational goals that guide the lives of individuals or groups (Feather, 2002; Rohan, 2000; Schwartz, 1996), have been found to be important determinants of environmental attitudes and environmental behavior (Dunlap et al., 1983; Follows and Jobber, 2000; Grunert and Juhl, 1995; Hedlund et al., 2012; Karp, 1996; Kim, 2011; Kim et al., 2009; Schultz and Zelezny, 1998, 1999; Stern and Dietz 1994; Stern et al., 1999; Stern et al., 1993; Thøgersen and Grunert-Beckmann, 1997). Specifically, values that transcend self-interest tend to be more strongly associated with individual environmentalism.

Theory on the content and structure of human values (Schwartz, 1992, 1994) significantly advances previous value theories and provides a systematic approach to the relationship between personal values and constructs such as attitudes and behavior. As such, the theory has been widely used in cross-cultural settings. In terms of human values, the theory grounds value structure on compatibility and conflict among ten motivational values arrayed along two dimensions: openness to change versus conservation and self-enhancement versus self-transcendence. When self-direction, stimulation, and hedonism motivate individuals, they are open to change and tend to follow personal interests. When security, conformity, and tradition motivate individuals, they want to preserve the status quo. When power and achievement drive individuals, they tend toward self enhancement, but when universalism and benevolence are the drivers, individuals focus on promoting the welfare of others (Schwartz, 1992). Schwartz's value theory has been often used to study motivations underlying socially conscious or environmental behaviors (e.g., Bagozzi and Heatherton, 1994; Follows and Jobber, 2000; Grunert and Juhl, 1995; Karp, 1996; Kim et al., 2009; Pepper et al., 2009; Schultz and Zelezny, 1998; Stern et al., 1993). The higher self-transcendence versus self-enhancement domains are especially relevant for studying the relationship between values and environmental behaviors, because they relate to the generally incompatible motivations of advancing one's own interests versus transcending them and promoting the wellbeing of others.

Along with Schwartz's value theory, Stern and Dietz (1994) posited that general values generate environmental attitudes, particularly egoism, altruism, and biospherism. Egoism or egoistic value orientations focus on maximizing individual outcomes, and are expected to negatively impact environmental choices that often involve personal sacrifice. In contrast, altruistic value orientation, focused on avoiding harming others, should promote pro-environmental action. Biospheric value orientation emphasizes protection of all life. Indeed, altruistic and biospheric values have been found to be positively related to environmentally friendly attitudes and behaviors, while egoistic values have been negatively or insignificantly related to eco-friendliness (de Groot and Steg, 2007, 2008; Milfont et al., 2010; Schultz and Zeleny, 1998; Swami et al., 2010; Thøgersen and Ölander, 2002). Thus, we

assume that Korean consumers who are strongly concerned about the welfare of others, including all living things, will engage in green purchasing behavior, whereas Koreans who strongly desire enhancing their self-interest will not.

Furthermore, we can compare the relative strengths of value influences when we compare general patterns and actual frequency of green buying behavior. Researchers have evaluated and measured green buying behaviors in various ways (Akehurst et al., 2012). Some authors use more general measures that indicate predispositions to environmentally conscious behavior (e.g., Straughan and Roberts, 1999). Others attempt to provide more objective measures (e.g., Chan, 2001) or use a single-item measure recording purchase frequency for numerous green product categories (Schlegelmilch et al., 1996). For our study, we use two measures to better understand green consumer behavior. Based on this literature, we posit that:

H1a: Altruistic and biospheric values are positively related to green buying behavior.

H1b: Altruistic and biospheric values are positively related to green purchasing frequency.

H1c: Egoistic values are negatively related to green buying behavior.

H1d: Egoistic values are negatively related to green purchasing frequency.

2.2. Mediating role of Perceived Consumer Effectiveness (PCE)

Although we have indicated that Koreans' value orientations will determine their green behavior, concept abstractness may distally influence values. That is, specific beliefs and attitudes toward the behavior may mediate and moderate links between values and behavior (Follows and Jobber, 2000; McCarty and Shrum, 1993, 1994; Moon et al., 2010; Rohan, 2000). In a study that examined perceived consumer effectiveness (PCE) as a construct mediating values and green purchasing behavior, beliefs were found to directly and indirectly affect value orientations and consequent behavioral intentions (Stern and Dietz, 1994). Kim and Choi (2005) demonstrated that PCE significantly mediated the impact of collectivistic cultural values on green purchasing behavior. Considering that value orientations are related to environmentalism, PCE is also assumed to be positively related with altruistic and biospheric values and negatively related with egoistic values.

Aside from attitudes toward environmental issues, individuals may hold PCE, a domain-specific belief in their ability to solve problems through their actions (Ellen et al., 1991). Several studies have modeled PCE as separate from the attitude construct (Berger and Cobin, 1992; Roberts, 1999; Straughan and Roberts, 1999) and have shown PCE to influence willingness to engage in green behaviors (e.g., Ellen et al., 1991; Kim and Choi, 2005; Lee and Holden, 1999; Nath et al., 2013; Straughan and Roberts, 1999).

We consider that PCE will indicate individuals' beliefs that their actions can positively affect environmental problems. That is, the greater their perceived effectiveness, the more likely they will adopt green behaviors. When individuals feel that their efforts will bring results, they will be more likely to try. Therefore, we hypothesize:

H2a: Altruistic and biospheric values are positively related to PCE.

H2b: Egoistic values are negatively related to PCE.

H2c: PCE is positively related to green buying behavior.

H2d: PCE is positively related to green purchasing frequency.

2.3. Demographics: gender and education

Researchers have provided mixed evidence regarding demographic and psychographic variables predicting those who are most likely to be considered environmentally conscious consumers; that is, those who will seek to consume or use only eco-friendly products (e.g., Roberts, 1999). Gender has been a special focus (Akehurst et al., 2012; Roberts, 1999; Roberts and Bacon, 1997; Sandahl and Robertson, 1989; Stern et al., 1993; Straughan and Roberts, 1999), but results are inconclusive. Generally, women have been identified as more likely to be eco-friendly (e.g., Davies et al., 1995; Radman, 2005; Wandel and Bugge, 1996). Education also seems to be positively associated with green purchase behaviors. That is, more highly educated individuals have a better understanding of the nature/human relationship (Jain and Kaur, 2006).

Consequently, they are expected to be more concerned about the environment, and are more likely to be frequent green consumers (Roberts, 1996; Tilikidou, 2001; Zimmer et al., 1994). However, as with gender, results are contradictory and ambiguous regarding education and its relationship with environmental purchases. Based on these results, we posit that: **H3a:** Gender and education are significantly related to green buying behavior; **H3b:** Gender and education are significantly related to green purchasing frequency.

3. Methodology

3.1. Data collection and sample characteristics

We surveyed individuals residing in Seoul, Korea, to test the relationships in the proposed model. The questionnaire was first constructed in English. Two Korean bilinguals made minor changes when they back-translated the questionnaire into Korean. A convenience sample of 450 respondents completed the questionnaire. After we excluded 34 questionnaires because of incomplete and/or invalid answers, we had 416 questionnaires for the analysis. Among the respondents, 51.4% were men, 54.9% were under the age of 29, and 54.4% had at least a college degree. Table 1 shows the demographic characteristics.

Table 1. Demographic analysis of respondents

Demographics	n=416	Frequency (%)
Gender		
Men	214	51.4
Women	200	48.1
Age		
Below 29	228	54.9
30 – 39	74	17.7
40 – 49	82	19.6
Over 50	29	7.0
Educational level completed		
High school	175	42.1
Two-years of college	41	9.9
Bachelor's degree	156	37.5
Master's degree	29	7.0
Household Income (Unit: won) (1 dollar $\approx$ 1,100 won)		
Below 3,000,000	101	24.3
3,000,000 – 4,000,000	71	17.1
4,000,000 – 5,000,000	39	9.4
5,000,000 – 6,000,000	48	11.5
Over 6,000,000	65	15.6
Job		
Students	171	41.1
Professionals	68	16.3
Office workers	42	10.1
Service, salespersons	33	7.9
Technical workers	58	13.9
House wives	23	5.5
Others	15	3.6

3.2. Measures

Seven-point Likert type scales were used in all construct measures. First, value orientations were measured with thirteen value items: five for egoistic values, four for altruistic values, and four for biospheric values (de Groot and Steg, 2007). The seven-point scale ranged from 1 = *not important* to 7 = *extremely important*. Second, we assessed PCE using four items adapted from previous studies (Berger and Corbin, 1992; Ellen et al., 1991; Kim and Choi, 2005). Respondents' answers were measured on a scale from 1 = *strongly disagree* to 7 = *strongly agree*. Green purchasing behavior was measured using six items adopted from Karp (1996) and Mostafa (2007) on a seven-point frequency scale from 1 = *never* to 7 = *always*. Green purchasing frequency was assessed using a single item: how frequently participants had purchased green products in the past 12 months. Finally, we measured demographic characteristics as dummy (control) variables for analysis purposes: gender (0: woman, 1: man) and educational level (0: below college, 1: above college).

4. Analysis and results

4.1. Measurement reliability

A factor analysis prior to further analysis was performed with principal components analysis and the varimax method using SPSS. As Table 2 shows, four factors were identified based on eigen values greater

than one. The four factors explained 67.889% of the variance of the sample data.

The first factor, consisting of value items pertaining to biospheric and altruistic orientations, explained 23.255% of the total variance. Different nations have shown unclear distinctions among the three value orientations (e.g., Corraliza and Berenguer, 2000; de Groot and Steg, 2008; Nordlund and Garvill, 2002). The second factor indicating green purchasing behavior explained 18.204% of the total variance. The third factor indicating egoistic value orientation explained 16.068% of the total variance. The fourth factor, PCE, explained 10.361% of the total variance. Table 2 shows satisfactory Cronbach's alphas of all measures.

To evaluate discriminant validity, we compared the correlation in each construct against the alpha coefficients representing its correlation with other factors. The alpha coefficients in each construct exceeded the correlation coefficient with other factors, suggesting discriminant validity (Gaski and Nevin, 1985; Lee et al., 2014) (see Table 2). Additionally, we conducted Harman's one-factor test for discriminant validity and found that any one general factor failed to account for most of the covariance among the measures (Lee et al., 2011; Lee et al., 2014; Podsakoff et al., 2003). Last, we tested a chi-square difference for a further check for discriminant validity of the measures using confirmatory factor analysis. The test examined whether the constrained model was significantly different from the unconstrained model. If the chi-square differences are significant,

discriminant validity is indicated (Lee et al., 2014; Rust et al., 2002). Thus, the test results indicated discriminant validity among the constructs.

4.2. Model estimation

The multi-items described in the previous section were divided randomly into two groups separately for each construct, in line with the procedure suggested by Bagozzi and Heatherton (1994). The scores for all of the items for each construct were summed, and those sum were used as respective indicators (Lee et al., 2008; Sherman et al., 1997). Table 3 represents the intercorrelations, mean,

and standard deviation of the constructs.

The data were then analyzed with AMOS 20.0 to compute the covariance matrix. As Figure 1 shows, the χ^2 statistic suggests that the data fit the model well ($\chi^2=35.938$, $df=28$, $p=.144$). All other overall model fit indicators corroborate that the data fit the model very well: goodness-of-fit index (GFI) = .981, adjusted goodness-of-fit index (AGFI) = .954, comparative fit index (CFI) = .994, normed fit index (NFI) = .973, and the root mean squared error of approximation (RMSEA) = .030. Therefore, the fit is adequate for further analysis. Table 4 reports the maximum likelihood estimates for the various parameters of the model.

Table 2. Results of a confirmatory factor analysis of personal values, PCE, and green purchasing behavior

<i>Factors and items</i>	<i>Factor loading</i>	<i>Eigen value</i>	<i>Variance Explained (%)</i>	<i>Cronbach's α</i>
Biospheric/altruistic values		5.349	23.255	.932
Environmental protection	.835			
Unity with nature	.830			
Pollution prevention	.827			
Social justice	.818			
Respect for the Earth	.798			
World peace	.798			
Helpfulness	.766			
Equality	.673			
Green purchase behavior		4.187	18.204	.909
I made a special effort to buy eco-friendly products	.872			
When I had a choice between two equal products, I purchased the one less harmful to people and the environment.	.845			
I planned to switch to a green version of a product.	.832			
I switched products for ecological reasons.	.820			
I bought organically grown produce.	.809			
I avoided buying foods with chemicals such as preservatives.	.719			
Egoistic Values		3.696	16.068	.912
Authority	.908			
Social power	.864			
Influence	.861			
Wealth	.807			
Ambition	.791			
Perceived Consumer Effectiveness (PCE)		2.383	10.361	.766
I can help solve natural resource problems by conserving water and energy.	.806			
I can protect the environment by buying eco-friendly products.	.784			
I feel capable of helping solve environmental problems.	.679			
Each person can positively affect society by signing a petition that promotes environmental support.	.605			
			67.889	

KMO=.887, Bartlett's Test of Sphericity=5,010.595(df=253), $p=.000$

Table 3. Construct Intercorrelations, Mean, and Standard Deviation

	1	2	3	4	5	6	Mean	SD
1. Egoistic values	1						5.001	1.196
2. Biospheric/altruistic values	.262**	1					5.653	.999
3. PCE	.084	.434**	1				4.845	.977
4. Green purchasing behavior	-.027	.222**	.352**	1			4.872	1.067
5. Purchasing frequency	-.085	.165**	.157**	.274**	1		14.393	25.983
6. Gender	-.012	.074	.001	-.020	-.043	1	-	-
7. Education	.019	.034	.051	.201**	.156**	-.168**	-	-

* $p < 0.05$, ** $p < 0.01$

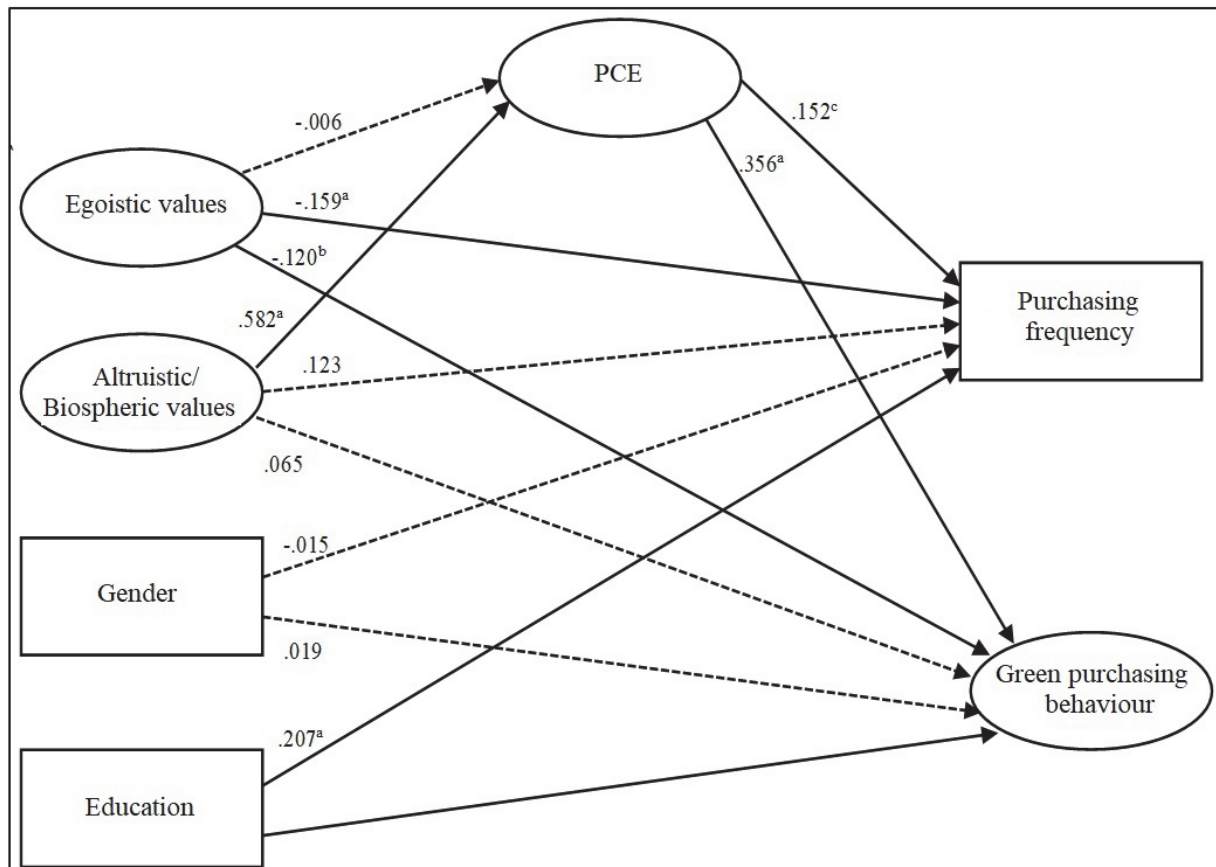


Fig. 1. Estimates of the structural model (^a $p < .01$, ^b $p < .05$, ^c $p < .10$, Standardized coefficient (t -value), Solid line: significant path $\chi^2 = 35.938$, $df = 28$ ($\chi^2 / df = 1.283$), $p = .114$, GFI = .981, AGFI = .954, NFI = .973, CFI = .994, RMSEA = .030)

4.3. Hypothesis testing

We tested the relationships between the constructs, depicted in figure 1. Of the twelve hypothesized relationships, seven were supported (see Table 4). Hypotheses H1a and H1b posited that altruistic and biospheric value orientations would be significantly related to green purchasing behavior and purchasing frequency.

Contrary to previous studies, altruistic/biospheric values were not significantly related to green purchasing behavior (coefficient = .065, t -value = .768, n.s.) and not associated with actual purchasing frequency (coefficient = .123, t -value = 1.517, n.s.). Therefore H1a and H1b were not supported. However, egoistic values and green purchasing tendencies had significant and negative relationships, as hypothesized in H1c (coefficient = $-.120$, t -value = -1.966 , $p < .05$, for green purchasing behavior) and H1d (coefficient = $-.159$, t -value = -2.681 , $p < .01$, for purchasing frequency). That is, the more strongly Korean consumers were egoistically oriented, the less they engaged in green purchasing behaviors. Thus, H1c and H1d were supported.

Although altruistic/biospheric values and green purchases were insignificantly related, PCE significantly mediated the link. As Table 4 shows, altruistic/biospheric values were significantly related to PCE (coefficient = .582, t -value = 7.514, $p < .01$) and in turn, PCE was significantly linked to green

purchasing behavior (coefficient = .356, t -value = 4.205, $p < .01$). This finding is in line with suggestions that mediators affect the value-behavior link (Follows and Jobber, 2000; Kim and Choi, 2005). Also, PCE and purchasing frequency had a marginally important link (coefficient = .152, t -value = 1.910, $p < .10$). That is, consistent with previous studies, PCE had an important effect on green purchasing behavior. Interestingly, egoistic values had an insignificant but negative effect on PCE (coefficient = $-.006$, t -value = $-.096$, n.s.). In sum, H2a, c, and d were supported, but not H2b.

Finally, we tested H3a and H3b regarding the relationship between demographic factors and green purchasing behavior. The analysis showed no significant relationship between gender and each measure of green purchasing action. That is, gender was unrelated to Korean consumers' general pattern of green purchasing behavior (coefficient = .019, t -value = .334, n.s.) and purchasing frequency (coefficient = $-.015$, t -value = $-.270$, n.s.). This outcome provided empirical evidence further doubting that gender affects green behavior. Unlike gender, education was meaningfully related with two measures of green purchasing behavior. That is, more highly educated Korean consumers were more likely to make eco-friendly purchase choices (coefficient = .235, t -value = 4.165, $p < .01$) and more frequent purchases (coefficient = .207, t -value = 3.823, $p < .01$). Hence, H3a and H3b were partially supported.

Table 4. Standardized parameter estimates

<i>Path</i>	<i>Standardized Estimates</i>	<i>t-value</i>
Egoistic values → PCE	-.006	-.096
Egoistic values → purchasing frequency	-.159	-2.681 ^a
Egoistic values → Green purchasing behavior	-.120	-1.966 ^b
Altruistic/Biospheric Values → PCE	.582	7.514 ^a
Altruistic/Biospheric Values → purchasing frequency	.123	1.517
Altruistic/Biospheric Values → Green purchasing behavior	.065	.768
PCE → purchasing frequency	.152	1.910 ^c
PCE → Green purchasing behavior	.356	4.205 ^a
Gender → purchasing frequency	-.015	-.270
Gender → Green purchasing behavior	.019	.334
Education → purchasing frequency	.207	3.823 ^a
Education → Green purchasing behavior	.235	4.165 ^a
SMC (R²)		
PCE	.337(33.7%)	
purchasing frequency	.119(11.9%)	
Green purchasing behavior	.223(22.3%)	
Fit indices		
χ^2	35.938	
df	28	
<i>p</i>	.114	

GFI = .981, AGFI = .954, NFI = .973, CFI = .994, RMSEA = .030, ^a $p < .01$, ^b $p < .05$, ^c $p < .10$.

5. Conclusion and implications

Scholars are increasingly aware that it is imperative to encourage environmental responsibility and, consequently, that it is essential to identify the determinants of eco-friendly purchasing behavior. Despite researchers' considerable contributions, they have inconsistently explained the antecedents of green consumption. The prior findings suggest the need to examine the antecedents of green consumer behavior in various cultural markets or market segments. Thus, we designed our study to investigate psychological and demographic variables in relation to Korean consumers' green purchasing behavior. We specifically examine purchase frequency, general patterns of purchasing behavior, and PCE. Although purchase frequency and general patterns similarly predicted eco-friendly choices and actual purchasing frequency, PCE showed potential differences in predicting the two measures. That is, we can compare the relative strengths of the predictors depending on the type of green behavior. Our efforts may provide deeper understandings regarding antecedents of pro-environmental buying behavior.

Overall, we find that Korean consumers who have altruistic/biospheric value orientations are motivated to purchase green products, but only when they have positive PCE beliefs. That is, the translation of these values into actual behaviors is possible only through perceived consumer effectiveness. However, egoistic values which are incompatible with altruistic/biospheric values exert direct and negative influences on Korean green purchasing behavior. In other words, Korean consumers who care for the welfare of humanity and nature tend to believe that their eco-friendly choices will improve or protect the ecological environment. Consequently, they want to

buy green products when they believe they have self-efficacy for solving problems that threaten the community. In contrast, Korean consumers who place more value on individual success and achievement tend to be less interested in being caretakers for other human beings or the ecology. Their self-oriented tendency inhibits their interest in improving environmental conditions.

Education, rather than gender, is the demographic factor that predisposes green consumerism in Koreans. Despite some mixed outcomes regarding demographical differences between men and women, past research has shown women to favor green behavior (e.g., Lee, 2009). However, Korean consumers diverge from those findings in that gender insignificantly explains green purchasing behavior. However, education is positively related: more highly educated Koreans are more likely to buy green products, in agreement with some prior studies.

Our research has implications for the marketing of green products to Korean consumers. We show that green marketers can persuade Korean buyers more effectively by assuring that marketing appeals incorporate the concept of balance and security of all life. For example, marketing communications should clearly connect green purchases to ecological values. Or marketers need to clearly articulate the pro-environmental benefits of buying their products. Additionally, Korean consumers must be encouraged to believe in their power to help conserve the environment. Therefore, public announcements and/or advertising campaigns can deliver messages highlighting that people are essential in combatting environmental degradation. Consumers who seek egoistic values can be educated to recognize that their personal success depends on

environmental sustainability. Finally, green marketers should consider their target consumers' educational levels and psychological characteristics. On a practical level, marketers may find it more effective to use rational or intellectual strategies that provide information about how green products work rather than using emotional appeals.

This study has some limitations that future research should address. First, the use of a convenience sample may limit the generality degree of the results. Second, the behavioral measures used were based on self-reports of past behaviors. Even though self-reports often give a fairly good approximation of future behavior, they have inherent limitations. Particularly, a study of participants usually over-report socially desirable past behaviors and under-report undesirable past behaviors. Future research should examine social desirability bias for its potential impact on responses to questions about green consumer preferences. Third, additional psychological and demographic factors might yield better predictions of target behavior. Research should extend the model to describe Korean consumers' green purchasing behavior in other consumption contexts and a broader population to test the generalizability of the findings. Notwithstanding these limitations, however, the study contributes to our knowledge about green product consumption in a non-Western country.

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