Committing Consumers to Sustainability: Portugal and South Korea Outlooks

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Abstract

The importance of recycling and environmental preservation has continued to receive increasing attention from governments, enterprises, and consumers. However, little research examines the factors that influence individuals' commitment to recycling and environmental preservation, and even less explores how that commitment can lead to preferential behavior, word of mouth and willingness to sacrifice for recycling and environmental preservation. This study examines the roles of need for self-expression and arousal to explain commitment and whether commitment leads to those behaviors. The study is duplicated in two countries, each representing different cultural dimensions. Data collected from respondents in South Korea and Portugal inform a model that supports the majority of the hypotheses and points out some interesting differences in the ways that recycling and environmental preservation should be presented in various cultures to achieve buy-in.

Keywords: Recycling, Environmental preservation, Commitment, Self-expression, Arousal, Willingness to sacrifice, Multi-cultural

Background

Over the past several decades, recycling and environmental preservation have been topics of growing interest in several countries (e.g., Pizzolatto and Zeringue II, 1993; Loureiro, Sardinha and Reijnders, 2012). For instance, Japan has focused on sustainable technology in the car industry, China is concerned in solar and wind energy (Bacani, 2009); Portugal has been at the forefront in reducing pollution and implementing solar and wind energy (Loureiro et al., 2012); South Korea implemented a program of five-year green growth strategy in 2010 (Young, 2010); and in the

United States great emphasis is being placed on sustainability issues by both the government and private sectors (Levitt, 2007; Probst, 2013). While each of these countries has made efforts to encourage its citizens to commit to preservation behaviors, cultural differences are bound to impact the success of these campaigns, yet researchers have not explored the impact of culture on the success of environmental efforts. Can the strength of behavior and actions toward environmentally friendly efforts be different depending on the cultural of consumers? Actually, environmentally friendly actions of consumers, such as the altruistic actions of consumers to buy only from companies that have a strong record of protecting the environment, have been regarded as consumers' ethical beliefs (e.g., Vitell and Muncy, 2005; Chowdhury and Fernando, 2013).

Previous studies have suggested that individuals with stronger environmental identities report performing more environmentally sustainable actions (e.g., Scannell and Gifford, 2010; Clayton, 2003). Other studies have explored predictors of commitment to the environment such as attitudes (Hines, Hungerford and Tomera, 1986-1987), values (Stern, 2000), affect (Hinds and Sparks, 2008), normative influence (Nolan et al., 2008) connectedness to nature (Mayer and Frantz, 2004), environmental identity (Clayton, 2003), commitment to nature (Davis, Green and Reed, 2009; Davis, Le and Coy, 2011) and elicit emotions of guilt or pride (Antonetti and Maklan, 2014). Lu, Chang and Chang (2015) even prove for Taiwan context that green buying intention is dependent on consumer ethical beliefs, cultural factors and individual factors.

Nevertheless, the same studies demand more research on this topic. Therefore the main goal of this study is to apply a proposed model in two countries – Portugal and South Korea – positing that self-expression through environmentally proactive behaviors combined with a sense of arousal lead to an affective commitment to recycling and environmental preservation. Affective commitment then predicts positive word-of-mouth about and willingness to sacrifice for environmental efforts as well as preferential consumption behaviors toward environmentally friendly products. Comparison of the results of this model among two different countries will also provide insight regarding the impact of cultural differences on consumers' dedication to environmental causes and the behaviors that result from that dedication.

Literature Review and Hypotheses

Antecedents of Affective Commitment to Environmental Causes

In close relationships theory, commitment has been regarded as a long-term orientation toward a relationship, the intent to persist in a relationship, and psychological attachment to a partner (Arriaga and Agnew, 2001; Rusbult, Olsen, Davis and Hannon, 2001). Interdependence theory (Thibaut and Kelley, 1959; Rusbult, 1980, 1983) suggests that individuals are more committed to a relationship to the extent that they are dependent on the other (e.g., a person, a place, a brand or an idea or thought) to satisfy their needs. Employing the same theory, Davis et al. (2009) define commitment in person-environment relationships as psychological attachment and long-term orientation to the natural world.

Research proposes two major types of commitment – calculative and affective. Calculative commitment captures the more rational economic-based relationship (Anderson and Weitz, 1992). Affective commitment is related to the degree to which a person identifies and feels involved with a company, a product, an idea over time (e.g., Bendapudi and Leone, 2002; Verhoef, 2003). This

research focuses on affective commitment, which indicates that an individual affectively committed to recycling and environmental preservation will be more identified and personally involved with the cause.

Personal involvement with a cause is similar to the kind of involvement that consumers have with brands. Consumers often build their self-identity and signal that identity to others through preferred brands based on perceived congruency between brand-user associations and self-image associations (Escalas and Bettman, 2003, 2005). Just as love for a brand can be used to define ones self-concept, strong belief in recycling and environmental preservation can be incorporated into the extended self (Sirgy, 1982; Belk, 1988; Davis, Green and Reed, 2009). If an individual incorporates such beliefs into his sense of self, that person should demonstrate more affective commitment to related behaviors. Therefore (see figure 1):

H1: Self-expression through environmentally proactive behaviors is positively associated with affective commitment to recycling and environmental preservation.

Antonetti and Maklan (2014) suggest that eliciting emotions is more effective than providing factual information about how consumers' choices affect ecological and social issues. In this study we consider arousal as a potential driver to commitment. Arousal is the extent to which an individual feels stimulated, active, excited (Eroglu et al., 2003; Menon and Kahn, 2002) or enthused (Finn, 2005). It can also describe a sense of incitement and encouragement (Loureiro and Kastenholz, 2011). Several studies have reported that arousal has a favorable positive influence on consumers' behavior and decision making (e.g., Darden and Babin, 1994; Donovan and Rossiter, 1982; Hui and Bateson, 1991; Li, Kim and Lee, 2009; Rufín, Medina and Rey, 2011). Arousal is primary in most emotion frameworks (i.e., Russell 1980, Watson and Tellegen, 1985) and, as an essential component of emotions, intensifies other emotions (Bagozzi et al., 1999, p. 192). High arousal tends to produce a halo effect from attitude to positive beliefs. Accordingly, an individual who is more excited about recycling and environmental preservation should be more affectively committed with the cause. Thus,

H2: Arousal is positively associated with affective commitment to recycling and environmental preservation.

Consequences of Affective Commitment to Environmental Causes

Commitment exercises a direct and positive effect on loyalty behaviors such as intent to repurchase and word of mouth (Johnson, Herrmann and Huber, 2006). Word of mouth refers to a personal communication to another (e.g., family and friends) encouraging or persuading them toward a brand or product (Herr, Kardes and Kim, 1991; Higie, Feick and Price, 1987; Money, Gilly and Graham, 1998), a lodging (Loureiro and Miranda, 2008) or even a cause. Thus, an individual committed to the environment and its preservation will be more engaged in spreading the word about the benefits of green products and encouraging others to recycle. Davis et al. (2009) provide specific evidence that, in an environmental context, commitment predicts environmental behavioral intentions. Therefore:

H3: Affective commitment to recycling and environment preservation is positively associated with word of mouth about environmental efforts.

In research on close relationships, sacrifice means to give up one's immediate self-interest for the sake of a partner or the relationship (Van Lange, Rusbult et al., 1997). Sacrifice could be a stage for "co-dependency" relationship dissatisfaction and depression (e.g., Jack, 1991; Jordan, 1991; Lerner, 1988). Willingness to sacrifice in relationships has been linked to outcomes such as satisfaction and a greater likelihood of persistence over time (Van Lange, Agnew et al., 1997; Van Lange, Rusbult et al., 1997; Wieselquist et al., 1999). Accordingly, willingness to sacrifice is a relationship maintenance behavior utilized by committed individuals (e.g., Van Lange, Agnew et al., 1997; Van Lange, Rusbult et al., 1997; Wieselquist et al., 1999; Agnew and Etcheverry, 2006). Sacrifice can be passive (an individual forgoes a desired activity), active (an individual undergoes an undesired activity), or both (Rusbult et al., 2001).

Most empirical research on sacrifice has relied on interdependence theory (Impett, Gable and Peplau, 2005; Mattingly and Clark, 2010). According to this theory, sacrifice will be unnecessary when the partners´ interests are aligned; however, when the partners´ interests are at odds, individuals have to decide whether they to choose their own self-interest or to sacrifice (e.g., Kelley and Thibaut, 1978). In the latter situation, individuals undergo a transformation of motivation in which self-interests may be supplanted by the well-being of the partner or the relationship. This transformation of motivation occurs because individuals are committed to their relationship (Agnew et al., 1998). Consequently, if a committed relationship were to end, there would be a threat to the self-concept of the involved individuals (Lewandowski et al., 2006) and of investments made such as time, effort, experienced emotions, mutual social networks, social status, and material resources (Le and Agnew, 2003).

Park, Macinnis and Priester (2006) recognize two types of personal sacrifices in relationships. The first type represents the consumer's willingness to sacrifice self-image resources for the brand (i.e., pride and self-esteem), and the second type describes the consumer's willingness to sacrifice scarce discretionary resources (i.e., money, time, or energy) for the brand. As committed individuals are more willing to sacrifice than non-committed individuals (Powell and Van Vugt, 2003; Loureiro, 2011):

H4: Affective commitment to recycling and environmental preservation is positively associated with the willingness to sacrifice on behalf of environmental efforts.

Actual behavior is regarded as an effect or consequence of intentions. In the extended use acceptance model (Thong, Hong and Tam, 2002; Venkatesh et al., 2003; Venkatesh, Thong and Xin, 2012), the intention to use an online device is a driver of actual use of such device. Affective commitment viewed as an emotional attachment toward a company or a brand has also been demonstrated to exert a positive effect on actual behavior (Verhoef, 2003; Morwitz and Fitzsimons, 2004). In a study of retail sales people, Chandrashekaran et al. (2000) provide evidence for the influence of commitment on intentions and actual behavior but also highlight that intention uncertainty plays a central role in determining when salespeople quit (actual behavior). Therefore, intentions may not lead to actual behavior when the level of uncertainty is high.

A commitment to environmental efforts often implies greater expenditures of temporal and monetary resources, as these behaviors and products have not yet become the norm in most countries. A person who believes that recycling and environmental preservation is important and who feels that this commitment reflects his values to others should be more willing to expend the extra resources required (e.g., choosing to buy green products, to buy products labeled as ecologically or environmentally friendly, or to purchase eco-friendly electronic devices). So, acting

in favor of environmental preservation, as a preferential behavior, will be stronger for individuals whose environmental preservation play a key role in shaping their identity and are affectively committed to the cause. An individual affectively committed to a cause will be more likely to make sacrifices for this cause and have an effective preferential shopping behavior of products labeled as ecologically and green products. Therefore:

H5: Affective commitment to recycling and environmental preservation is positively associated with preferential behavior toward environmentally friendly products.

And willingness to sacrifice on behalf of environmental efforts should also impact this behavior, so:

H6: Willingness to sacrifice on behalf of environmental efforts is positively associated with preferential behavior toward environmentally friendly products.

The Moderating Effect of National Culture

National culture is regarded as an important characteristic that underlies differences in individual behavior, in the ways people perceive situations or events, and also in differences in interactions with others (e.g., Hofstede, 1980; Inglehart, 1997; Triandis, 1999). Triandis (1989, 1999) alludes to the fact that cultures differ in terms of the types of information they choose to extract from their external environment. Thus, major differences are found between cultures that are located at different stages of economic development or between "tight" (i.e., many behavioral rules, intolerance of deviation from norms) and "loose" (tolerant of deviations from norms) cultures, as well as individualistic (driven mainly by personal, internal attributes) and collectivistic (focus on relationships, role duties, and obligations) cultures.

In this study we consider the widely accepted cultural dimensions proposed by Hofstede (1980, 2001) to explore the moderating effect of cultural dimension on the model we propose. Hofstede provides five separate dimensions to explain cultural differences among nations.

Power Distance (PD) refers to the degree to which the members of society who lack real power expect and even accept that power is distributed unevenly. Societies that are high in PD accept that there is a hierarchical order in which people have certain roles, while those societies that are low in PD tend to work for more equality and to demand justification when power differentials exist.

Uncertainty avoidance (UAI) expresses the level of uncertainty and ambiguity required to make a society uncomfortable. Essentially, the dimension describes whether a society allows an uncertain future to merely unfold or whether it tries to control the future. Societies with strong UAI exhibit little tolerance for unorthodox behavior and employ strict rules of conduct for its members, while those with a weaker UAI exhibit a more relaxed attitude toward norms, feeling that practice matters more than principle.

Cultures are also described in terms of their individualism versus collectivism (IDV). Individualistic societies exhibit a preference for loosely knit social frameworks in which members are responsible for themselves and their immediate family members only. Collectivistic societies believe instead that members bear responsibilities and loyalty to each other, if not to the society as a whole, then at least to certain in-groups that are still much larger than the circle of responsibility shared by individualistic society members.

Long-term orientation (LTO), relates to a society's search for virtue. Those societies that are more short-term oriented exhibit an interest in finding the absolute Truth, with strong respect for tradition, little interest in saving for the future, and a desire to achieve quick results. Long-term oriented societies believe that truth is situation-dependent, strive to save and prepare for the future, and will persevere in order to achieve desired results. They also show an ability to adapt their traditions to changing conditions.

The final dimension, masculinity versus femininity (MAS) is the dimension that relates to a society's preference for personal achievement, heroism, assertiveness, and material rewards for success, with femininity referring to a focus on cooperation, modesty, caring for the weak, and overall quality of life. Societies rated as more masculine tend to be more competitive. Those societies rated as more feminine prefer to reach consensus on important issues. While this dimension may be used less often than some of the others in marketing research to distinguish cultural characteristics, it is especially appropriate for the purposes of this research. In masculine societies individuals tend to be more assertive and self-centered, focusing on personal achievement. For this reason and the sake of parsimony, this study will examine only the moderating effects of MAS. While other dimensions could certainly impact the behaviors of the consumers studied, this dimension captures the driving role of ego in making the individual more assertive and proactive in his attitudes, decisions, and actions on behalf of environmental issues. Therefore more masculine countries such as South Korea should exhibit greater willingness to act on their commitment to the cause. Accordingly:

H7: The positive relationships between (a) affective commitment and word-of-mouth; (b) affective commitment and willingness to sacrifice; and (c) affective commitment and actual preferential behavior are stronger in more masculine cultures.

Based on the MAS scores of the two countries studied, the above hypothesis suggests that the three relationships will be strongest for South Korea (MAS=39) and weakest for Portugal (MAS=31).The Hofstede scores for each country in this study can be found in Table 1:

Table 1. Hofstede Scores of Two Countries in the Study

Country	Power Distance (PDI)	Masculine vs. Feminine (MAS)	Uncertainty Avoidance (UVI)	Individualitic vs. Collectivistic (IDV)	Long-term Orientation (LTO)
Portugal	63	31	104	27	30
South Korea	60	39	85	18	75

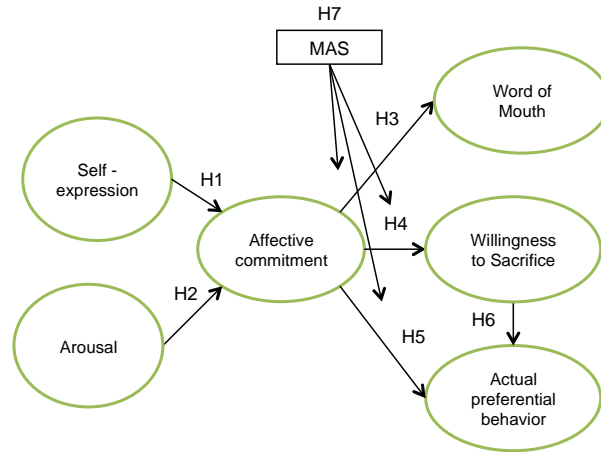See Figure 1 for the full model:

Figure 1. Proposed model

Methodology

Samples

A survey was employed to empirically validate the theoretical model. Data was gathered from students enrolled in several universities in the studied countries – Portugal (300 respondents) and South Korea (250 respondents). Table 2 provides a demographic profile of the respondents. Both undergraduate and graduate students from a range of courses participated in the study. Each country sample is split almost evenly between genders.

Table 2. Respondent Profile

Country	Gender	Age	Academic skills
Portugal	Male: 40% Female: 60%	Mean= 26.3 SD= 7.8	Finance, biology, economy, management, engineering, marketing, psychology, tourism, languages
South Korea	Male: 54% Female: 46%	Mean= 23.9 SD= 3.4	Textile, language, business, engendering, law

SD – Standard Deviation

Variables and Measurement

Drawing from the literature review, a questionnaire containing the items designed to measure the latent variables and a section with the socio-demographic variables was first constructed in English (British) and then translated into the predominant languages of each country. Back translation was then used to ensure that the questionnaire communicated similar information to all respondents (Sekaran, 1983). The last part of the questionnaire concerned socio-demographic data. The questionnaire was pilot tested with the help of ten experts regarding students and professors in each

country was conducted to ensure that the wording of the questionnaire was clear. Only a few adjustments were made.

The items used to measure the constructs (See Table 3.) were adapted from previous studies. For each item, respondents were asked to rate their degree of agreement or disagreement on a 5-point Likert-type scale. (In the case of the questions used to assess willingness to sacrifice, the scales were weighted from 1 – Not at all Likely to 5 – Very Likely.

Table 3. Items Used to Measure Constructs

Construct	Item	Source
Self-Expression	SE1 The way I view recycling and environmental preservation symbolizes the kind of person I really am inside. SE2 The way I view recycling and environmental preservation reflects my personality. SE3 The way I view recycling and environmental preservation mirrors the real me. SE4 The way I view recycling and environmental preservation contributes to my image. SE5 The way I view recycling and environmental preservation has a positive impact on what others think of me. SE6 The way I view recycling and environmental preservation improves the way society views me.	Adapted from Escalas and Bettman (2003, 2005) and Carroll and Ahuvia (2006)
Arousal	E1 Recycling and environmental preservation are stimulating. E2 Recycling and environmental preservation are exciting. E3 I am enthusiastic about recycling and environmental preservation.	Adapted from Donovan and Rossiter (1982) and Finn (2005)
Actual Preferential Behavior	AB1 In my grocery shopping and whenever I have a choice, I always choose to buy green products. AB2 I prefer to buy products labeled as ecologically or environmentally friendly. AB3 I prefer to purchase eco-friendly electric and electronic devices. AB4 I do my grocery shopping for green products once a week.	Based on Davis, O'Callaghan and Knox (2009)
Affective Commitment	C1 I am committed to recycling and environment sustainability. C2 I'll continue recycling and environmental preservation through good times or bad. C3 I have a lot of faith that I will continue recycling and environmental preservation.	Adapted from Johnson *et al.* 2006)
Word of Mouth	W1 I will encourage my friends and family to recycle their waste. W2 I will explain to my friends and family the benefits of green products.	Adapted from Zeithaml, Berry, and Parasuraman (1996)
Willingness to Sacrifice	S1 How likely are you to give up an interesting activity in order to maintain or improve the recycling and environmental preservation? S2 How likely are you to engage in an undesired activity because of the recycling and environmental preservation?	Based on Impett, Gable, and Peplau (2005)

Although the questionnaire was developed based on instruments used in previous studies, the structure took several aspects into consideration in order to avoid common method bias. Thus, the items and questions were prepared to avoid ambiguity, namely: keeping them simple and concise,

without unfamiliar terms and complex syntax (Tourangeau et al., 2000). Since all constructs were measured using a Likert-type scale, in the current study the same format of response scales was employed. In these instances, it is important to give priority to maintaining the content validity of the items because a lack of content validity poses an even bigger threat to construct validity than does common method bias (MacKenzie et al., 2011). The physical distance between measures of the same construct was also taken into consideration, that is, not to have all items of the same construct right next to each other (Weijters et al., 2009).

Data Analysis

The Partial Least Squares (PLS) approach was employed to estimate structural paths coefficients, R^2, Q^2, and Bootstrap techniques. PLS is based on an iterative combination of principal components analysis and regression, and it aims to explain the variance of the constructs in the model (Chin, 1998). R^2 indicates the amount of variance explained by the exogenous variables (Barclay et al. 1995). Q^2 (chi-squared of the Stone-Geisser Criterion) is used to evaluate the structural model, the cross-validated redundancy (Chin, 1998). If the relationships in the model have predictive relevance, then $Q^2 > 0$ (Fornell and Cha, 1994). Tenenhaus et al. (2005) propose the geometric mean of the average communality (outer model) and the average R^2 (inner model) as overall goodness of fit (GoF) measures when using PLS (cross-validated PLS GoF). The GoF ranges from 0 to 1.

In terms of advantages, PLS simultaneously estimates all path coefficients and individual item loadings in the context of a specified model and, as a result, enables researchers to avoid biased and inconsistent parameter estimates. Moreover, it has proved to be an effective analytical tool to test interactions by reducing type II errors (Chin et al., 2003). PLS makes lower demands on measurement scales, sample size and residual distributions; avoids inadmissible solutions and factor indeterminacy; and minimizes the variance of all the dependent variables instead of explaining the co-variation and so the manifest variables do not have to follow normal distribution, in other words, there are no assumptions regarding the distributional form of manifest variables (Fornell & Bookstein, 1982; Chin, 1998). Wold (1985, p. 590) holds that "in large, complex models with latent variables, PLS is virtually without competition". Thus, PLS was chosen to accommodate the presence of a large number of variables and a complex model.

Results

A PLS model should be analyzed and interpreted in two stages. First, the measurement model, or the adequacy of the measures, is assessed by evaluating the reliability of the individual measures, the convergent validity, and the discriminant validity of the constructs. Then, the structural model is evaluated. Item reliability is assessed by examining the loadings of the measures on their corresponding constructs. Item loadings of scales measuring reflective constructs should be 0.707 or more, which indicates that over 50% of the variance in the observed variable is explained by the construct (Wetzels et al., 2009). For the Portuguese sample all item loadings exceed 0.707, but items SE2 and AB4 were eliminated for the South Korean sample. All composite reliability (CR) values (See Table 4.) are above 0.8, demonstrating that all constructs are reliable, exceeding the threshold value of 0.7. The measures also demonstrate convergent validity as the average variances

of manifest variables extracted by constructs (AVE) are above 0.5, indicating that more variance of each of the indicators are explained by their own construct.

Table 4. Measurement Results

Country	Portugal				South Korea			
Latent Variables	Mean LV	Item Loading range	AVE	CR	Mean LV	Item Loading range	AVE	CR
Self-expression	3.4	(0.803-0.895)	0.704	0.934	3.4	(0.783-0.860)	0.686	0.916
Arousal	3.3	(0.915-0.934)	0.858	0.948	3.2	(0.785-0.920)	0.607	0.754
Actual Preferential Behavior	3.2	(0.737-0.893)	0.668	0.889	3.4	(0.855-0.888)	0.757	0.903
Affective Commitment	3.9	(0.766-0.838)	0.640	0.842	3.3	(0.811-0.893)	0.728	0.843
Word of mouth	4.1	(0.897-0.910)	0.666	0.856	3.4	(0.776-0.926)	0.730	0.843
Willingness to sacrifice	3.0	(0.864-0.875)	0.757	0.861	3.1	(0.801-0.861)	0.692	0.818

AVE: Average Variance Extracted; CR: Composite Reliability

The square root of AVE should be greater than the correlation between the construct and other constructs in the model in order to demonstrate discriminant validity (Fornell and Larcker, 1981). This criterion was met for all constructs. The overall structural results are presented in Table 5, demonstrating that hypotheses H3, H4, H5 are supported, and hypotheses H1, H2, and H6 are partially supported.

Table 5. Structural Results

Hypothesis	Path	β Portugal	β South Korea	Support
H1	Arousal -> Affective Commitment	0.545***	0.075 ns	Partial
H2	Self-Expression -> Affective Commitment	0.120 ns	0.512***	Partial
H3	Affective commitment ->Word of Mouth	0.675***	0.860***	Full
H4	Affective Commitment -> Willingness to Sacrifice	0.453***	0.659***	Full
H5	Affective Commitment -> Actual Preferential Behavior	0.485***	0.316***	Full
H6	Willingness to Sacrifice -> Actual Preferential Behavior	0.119 ns	0.232*	Partial
	R^2 Affective Commitment (Q^2)	39.5% (0.25)	31.8% (0.22)	
	R^2 Word of Mouth (Q^2)	55.0% (0.34)	75.5% (0.52)	
	R^2 Sacrifice (Q^2)	20.5% (0.15)	43.4% (0.29)	
	R^2 Actual Preferential Behavior (Q^2)	30.1% (0.17)	25.0% (0.16)	
	GoF	0.51	0.55	

*p<0.05   **p<0.01   ***p<0.001   ns - Not significant

All values of Q2 are positive, so the relationships in the model have predictive relevance. The model also demonstrates a good level of predictive power (R2). Generally, the proposed model structure holds across the different countries. The values of GoF reveal a relatively good fit. To systematically explore the moderating effect of culture on the path coefficients, the estimated coefficients and the cultural dimensions were plotted (see Figure 2).
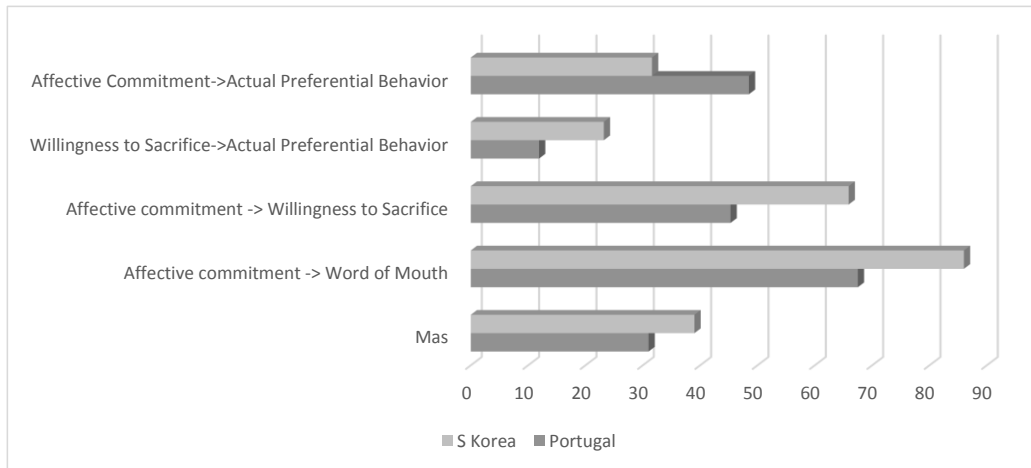
Figure 2. Graph of Beta Coefficients

Figure 2 shows the graph of the beta coefficient estimates and the MAS dimension of culture. Hypothesis 7 predicted that higher the country on the MAS scale, the stronger the values of its path coefficients would be. Thus, we find partial support for H7. South Korea exhibit stronger paths between affective commitment and willingness to sacrifice and between affective commitment and word of mouth. Inglehart (1997) provides a possible explanation, describing South Korean culture as much more traditional. Perhaps in such a culture, a cause like recycling and environmental preservation is internalized as positive for the whole community, and therefore a more patriotic behavior.

Also contrary to the model, Portugal, exhibits the strongest path between affective commitment and actual preferential behavior. But the MAS dimension may also explain this finding. Portugal, a more feminine culture facing South Korea tend to focus on overall quality of life for its citizens. Perhaps in this culture, an abiding belief in a cause that benefits all of society is even more likely to lead to actual behaviors to ensure that benefit. This is consistent with the fact that willingness to sacrifice fails to predict actual preferential behavior only in Portugal. A strong belief in the cause may preclude a sense of sacrifice in this more feminine culture, making that feeling an even more important driver than in the other culture.

Discussion and Implications

Recycling and environmental preservation continue to receive an increasing amount of attention in several domains of research. This study focuses on the antecedents and outcomes of affective commitment toward recycling and environmental preservation and also examines the influence of the masculinity of the home culture. The model is empirically tested in two different cultures.

Self-expression and arousal are the two predictors of affective commitment to recycling and environmental preservation. These two constructs are partially effective in predicting affective commitment in both countries. Arousal as an antecedent to affective commitment is shown to be important in Portugal. While this is not the hypothesized outcome, the lack of a significant effect in that sample could be related to a different Hofstede cultural dimension – IDV. Perhaps because arousal is by definition a self-centered emotion, the South Korean tendency to focus on the collective (IDV=18) may preclude the need for an individual to feel arousal in order to experience affective commitment toward the cause. Similarly, the Portuguese sample failed to show a significant path from self-expression to affective commitment. Perhaps that culture's relatively low MAS score (31) could impact the importance of self-expression in developing affective commitment. In more masculine-focused nations, such as South Korea, the individual's perception of the degree to which the idea of recycling and environmental preservation enhances one's social self and/or reflects one's inner self is critical to becoming involved with that idea over time. (e.g., Bendapudi and Leone, 2002; Verhoef, 2003). We also examine three potential outcomes of commitment to recycling and environmental preservation – propensity to spread word of mouth about environmental efforts, willingness to sacrifice on behalf of environmental efforts, and preferential behavior toward environmentally friendly products. The findings proved that all three outcomes are effectively predicted by affective commitment. These findings are consistent with previous research on salesperson behavior (Chandrashekaran et al., 2000) or consumer purchase context (Johnson et al., 2006) indicating that affective commitment plays an important role in driving behaviors that produce desired outcomes. These findings are unique, though, in that commitment to recycling and environmental preservation calls for the individual to place the cause above his own convenience or self-interest in some cases, unlike the salesperson that sees increased income or the consumer that receives a sought-after purchase.

All three predicted outcomes of affective commitment to recycling and environmental preservation are proved by the model in both cultures. The mediating effect of MAS, though, does not hold consistently for each culture. As predicted by the model, the more masculine countries (South Korea) do show the strongest effect of affective commitment on word of mouth and willingness to sacrifice. Interestingly though, Portugal, the more feminine country, demonstrates the strongest effect of affective commitment on actual preferential behavior toward environmentally friendly products.

As predicted by the model, the more masculine nations require affective commitment to produce word of mouth and a willingness to sacrifice. In those nations there is also a causal order between self-expression and affective commitment with a need for self-expression and ego identification driving affective commitment to the cause. However in more feminine nations, such as Portugal, the emotions surrounding the cause (excitement and enthusiasm) appear to be the main activation mechanism driving preferential behaviors toward environmentally friendly products.

The Hofstede dimension of IDV could possibly explain why South Koreans place more importance on affective commitment. In the more collective South Korean culture, affective commitment appears to be driven more by self-expression than by arousal. If that self-expression is on behalf of the collective rather than the individual, then the resulting effect is even stronger.

The findings lead to some interesting implications for anyone interested in environmental preservation and sustainability. As demonstrated by the model, several factors impact the way that environmental causes should be presented in order to achieve real results. The way professors teach recycling and environmental preservation issues, the way families integrate these issues in their

norms, and the way brands communicate the value of their green products depend on cultural characteristics of the home culture.

In each of the cultures affective commitment is important to some desirable behaviors. In more masculine cultures that commitment tends to be driven by a need for self-expression. Environmental educators and advocates in more masculine countries should strive to internalize the value of environmental causes for their audience. If the individual in these countries feels that acting upon environmental messages expresses his own beliefs and enhances his standing within the community, then he is more likely to act on these beliefs. Conversely, in more feminine countries the best way to encourage desired environmentally sound behaviors is to appeal to the excitement around the cause, building a sense of enthusiasm in the intended audience.

The findings related to actual preferential behavior toward environmentally friendly products are those that would be most interesting to brand managers. In every culture studied affective commitment is required to drive preferential buying behaviors. Therefore the audience for green products is already emotionally biased toward the products. To grow this market will require greater affective buy-in from the public at large. In more masculine countries this demands promotional messages that internalize the cause of environmental preservation. The consumer must believe that purchasing environmentally friendly products will enhance his own wellbeing. In these same cultures willingness to sacrifice also drives such purchases, so it is imperative to demonstrate to the consumer that his/her sacrifice (of time, money, or effort) actually matters. In more feminine countries that willingness to sacrifice is not important. There the greater the emotional connection to the cause, the more likely the consumer is to purchase green products. Indeed, that emotional commitment is the strongest predictor in more feminine cultures.

This study has certain limitations and also presents some key opportunities for further research. The study incorporates a convenience sample of college students. Understanding the behavior of young adults is important as they are the future of the environmental movement, but more generalizability would be achieved by testing this model across a wide range of age groups. Conducting the study across age groups would provide not only an interesting examination of the life cycle of cultural orientation, but also the evolution of recycling and environmental preservation identification.

We selected the countries for this study due to their historical reputation as masculine and feminine cultures, according to Hofstede (2005). Expanding this study across multiple countries would provide an interesting perspective, particularly if combined with the expansion of an age continuum. Moving forward, new measures that assess feelings, experiences and thoughts that people have about recycling and environmental preservation would be interesting to explore.

Another possibly exciting avenue for this research will be to explore the interaction of the various cultural dimensions on the behaviors we studied. Our results point to the fact that more than one dimension can drive not only commitment to environmental efforts but the outcomes of that commitment.

Regarding theoretical contributions, this study explores for the first time (a) self-expression and arousal as antecedents of affective commitment to recycling and environmental preservation; (b) willingness to sacrifice and actual preferential behavior as a consequence of affective commitment to recycling and environmental preservation; and (c) comparison of such a model among three different cultures.

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