

TRUE GREEN CONSUMERS: AN INVESTIGATION OF CONSUMERS' GENUINE WILLINGNESS TO SHARE ENVIRONMENTAL RESPONSIBILITY

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ABSTRACT

This research investigates environmental attitudes among consumers in three countries: The United States of America, Kuwait and Turkey. The choice of the three countries is based on levels of income and economic development. The focus of this study is exploring characteristics of consumers having the goal of becoming genuinely green. A true green consumer is an individual who plans their lifestyle to become environmental friendly. Moreover, true green consumers are not only environmentally responsible, but also committed to convert his family and friends into green individuals.

JEL: M16, M30, M31, Q50, Z10

KEYWORDS: Green Consumers, Consciousness, Skepticism, Locus of control

INTRODUCTION

The environment preservation and pollution reduction movements started in the 1960's, and have pressured governments and political systems to take actions towards saving the ecological system (Straughan and Roberts, 1999; Alsamdi, 2007). Global concern regarding environmental deterioration has translated into a commitment of businesses to change their processes in an attempt to protect the environment (Farj and Martinez, 2007). Pressure on businesses started in the 1980's when academic research identified increasing environmental threats (Straughan and Roberts, 1999). Throughout the years, companies moved from reducing pollution to changing their product design and communication methods to keep up with the environmental movement.

Serious deterioration of the environment became obvious in the 1990's (Alsamdi, 2007) when environmental movements gained importance (Paco et al. 2009). The usual dilemma is to identify a balance between preserving the environment and sustaining economic growth. Consumers in the United States and Western Europe are more aware of ecological problems and are more willing to become responsible and careful with regard to consumption methods (Stone et al. 1995).

The ecological consumption concept has been discussed in the literature (Granzin and Olson 1991, Guagnano et al., 1995, Stone et al., 1995, Sanchez et al., 1998). These concepts include consumer commitments, responsibility, attitude towards recycling and a willingness to pay more for green products (Farj and Martinez, 2007). An important change in the social system is the emergence of ecological consumers (Farj and Martinez, 2007).

Environmental issues are important topics in marketing research due to their importance to consumers and organizations. The uniqueness of this research stems from the focus on three countries with different cultural, political and economic backgrounds. The objective is to identify the profile of true green consumers based on external factors. This paper begins with a description of the environmental situation in each country. Next, the literature review is discussed. The paper continues with a discussion the methodology and presentation of results. The paper closes with some concluding comments.

GENERAL INFORMATION ABOUT THE CHOSEN COUNTRIES

Environmental movements in the United States are stronger than in Turkey and Kuwait. Environmental concerns are regularly addressed by the American government. There is continuous growth in the number of companies obtaining certifications for green buildings (Miller and Washington, 2009). Moreover, the use of solar and other forms of natural energy is in the planning stages for several large companies such as Kohl's, Macy's, Target and Wal-mart (Miller and Washington, 2009). The use of plastic bags was reduced or eliminated in several retailing shops such as Whole Foods (Miller and Washington, 2009). These efforts made by companies are increasing consumers' access to green products and green lifestyle. Discussing the growth of the green retailing in the United States is not the main concern of the current research. A general picture of the situation is discussed for comparing the three countries investigated.

Business research in USA started to show interest in environmental studies in the 1960's and tried to link it to politics (Roberts, 1996). According to Roberts (1996), green consumption in the United States had trends in the 1990's including: 1) green products became mass market commodities, 2) consumers show preference and support for green companies, and 3) increases in green product categories. The literature shows that consumers in America are willing to pay higher prices for green products because of their belief that it will improve their future quality of life (Rao and Bergan, 1992; Lambert, 1996; Vlosky et al., 1999). It is difficult to find environmental research on Kuwait especially in the field of green business. The lack of interest and low priority for environmental issues are primary reasons behind the lack of data. Most available environmental research on Kuwait relates to the oil industry and post 1991 war situation. This lack of research is common in developing countries (Latvin, 1998).

After the Iraqi invasion of Kuwait, the environmental status of the country changed dramatically due to damaged marine life and polluted air. During the liberation war, Desert Storm, the Iraqi regime decided to abuse the environment as means of revenge (Khordagui, 1991). The Iraqi regime damaged the environment in Kuwait by: a) Spilling almost 12.5 million barrels of crude oil in the water and polluting marine life, b) Polluting the air by lighting almost 600 oil-well heads, and c) Destroying land and agriculture through tank continuous movements (Khordagui, 1991). In 2001, a sad marine life environmental incident occurred in Kuwait. Thousands of dead fish washed up on the coast of Kuwait in August 2001 (GLEG, www.greenline.com.kw). This incident encouraged a group of young Kuwaiti activists to start the first independent green group in the GCC region. The Green Line Environmental Group is still an active source of information for individuals who are seeking information and tools for becoming green citizens (UNEP.org).

Turkey has established some base of business research in the field of green marketing. Research in Turkey has shown that individuals are usually concerned with their daily challenges and have little interest in preserving the environment (Muzaffar and Emine, 2005). Muzaffar and Emine (2005) suggested remedies for the current situation in Turkey. Those remedies include: 1) educating consumers about the result of their consumption habits on the long run, 2) rewarding concerned consumers as type of encouragement, 3) more media focus on concerned consumers, and 4) collaboration among media, government and private sector for spreading the awareness (Muzaffar and Emine, 2005).

The environment was mentioned for the first time in the Turkish constitution in 1961 (Ozdemir, 2003). Concerns regarding ecological problems grew rapidly in the 1980's especially in the industrial areas of Turkey (Ozdemir, 2003). More explanations were added to the Turkish constitution in 1982, which led to the use of natural gas, thereby reducing pollution in rural areas (Ozdemir, 2003). Moreover, Turkey started to change its education system to include environmental studies at the university level with the growth of environmental engineering (Ozdemir, 2003). This happened because of Turkey's continuous attempts to join global organizations and the European Union (Ozdemir, 2003).

The Environmental Vulnerability Index (EVI) is used by the United Nations Environment Development Program (UNEP). This index combined with social and economic indices helps prepare countries for sustainable development. EVI Country Profiles show Kuwait and Turkey are highly vulnerable countries with EVI's of 323 and 353 respectively. Apparently Turkey is close to becoming an extremely vulnerable country unless they take major actions to reduce current and expected damage to their ecological system. The United States, on the other hand, is considered vulnerable with an EVI of 300.

Another environmental classification is the Environmental Sustainability Index (ESI). It was an initiative based on collaboration between Yale Center for Environmental Law and Policy (YCELP), the Center for International Earth Science Information Network (CIESIN) of Columbia University, the World Economic Forum and the Joint Research Centre of the European Commission. The initiative started in 2001 at the World Economic Forum in Davos, Switzerland. At the forum, the ESI was defined as "the ability to produce high levels of performance on each of the dimensions in a lasting matter" (World Economic Forum Report, 2001). In 2010, 163 countries were ranked based on 25 performance indicators. The United States of America was ranked 61st with an EPI of 63.5. Turkey was ranked 77 with an EPI of 60.4. Kuwait, on the other hand, was ranked 113 with a low EPI of 51.2.

LITERATURE REVIEW

Farj-Andres and Martinez-Salinas (2007) defined a green consumer as an ecological consumer who is "an individual interested and concerned for the environment and shows an important verbal and real ecological commitment." Alsamdi (2007) defined green consumers as "environmentally conscious consumers who are loyal to green products." Another definition of green consumers is "consumers whose purchases are influenced by environmental issues" Shrum et al. (1995). A seminal research categorizing green consumers was by Chitra (2007). The author presented four categories of consumers: "1) Aspirants who wish to purchase green products at reasonable price, 2) Addicts are addicted to buying green products, 3) Adjusters look for satisfying products (green or not green), and 4) Avoiders, do not believe in green consumption or green marketing" (Chitra, 2007).

Montgomery and Stone (2009) presented a cultural comparison concerning environmental attitude in five countries: Azerbaijan, Spain, Italy, USA and Venezuela. The dimensions used to measure environmental responsibility were awareness of environmental issues, available knowledge, skills, and a true desire to become active (Montgomery and Stone, 2009). The genuine desire of consumers to convert into effective green consumption was introduced by Fransson and Garling (1999). Fransson and Garling based their work on the scale of ecological attitude introduced by Maloney et al. (1975) in which they relied on four variables: verbal commitment, actual commitment, affect or emotional commitment, and knowledge (Fransson and Garling, 1999). In the current research, a true green consumer is a leader and an influential voice in their community. The role of reference groups and opinion leaders are importance in affecting the purchasing decisions for green products (Welsh and Kuhling 2009).

Alsamdi (2007) defined environmental consciousness as "showing a strong sense of environmental responsibility." Among the activities that show consumers' consciousness are recycling, buying environmental friendly products and reducing the use of energy (Miller and Washington, 2009). Another investigation of consumers' consciousness was introduced by Schlegelmilch et al. (1996). The authors discussed consciousness through four dimensions: perception of knowledge, recycling, attitude and political actions (Bohlen et al., 1993; Schlegelmilch et al., 1996). Hence, our first hypothesis is:

H1: Environmental consciousness will have a relationship with the creation of True green consumers.

The media can play an informative role in educating consumers about ecological problems. Advertising could pay more attention to changing the misconception of green lifestyle by showing it as a convenient

and affordable (Laroche et al., 2001). Another aspect that could be advertised is the positive environment changes resulting from simple changes in consumers' consumption behavior (Laroche et al., 2001).

The environment is shared by nations around the world therefore; the enforcement of international law is essential for solving ecological problems facing our planet (Esty, 2008). Each country needs a special regulatory system that starts at the city level to preserve the environment based on the compliance with a global governance system (Esty, 2008). Esty (2008) discussed the role of United Nations Environment Program (UNEP) and its diminishing effect on nations due to a high level of bureaucracy and the lack of performance indicators for countries to follow. Moreover, the location of UNEP (Nairobi, Kenya) represents a problem when it comes to job demand (Esty, 2008).

With increased ecological knowledge among consumers, companies started to produce green products (Pride and Ferrell, 2008). Alsamdi (2007) defined green marketing as "marketing activities within a framework of environmental responsibility." He also defined green products as "products that do not harm the environment" (Alsamdi, 2007). Companies are increasingly communicating their environmental activities in an attempt to strengthen their reputation and image to the public (Davis, 1994). Moreover, companies advertise their collaboration with NPO's and charity organizations to support their good image (Davis, 1994). Environmental activities advertised include: protection of wildlife, green business processes and preserving natural resources (Davis, 1994). Moreover, companies are changing targeting strategies to include consumers' level of commitment to preserving the environment (Schlegelmilch et al., 1996). Investigating green consumption habits is an important aspects of segmenting consumers by environmentally active companies (Schlegelmilch et al., 1996). Hence we hypothesize:

H2: External factors have a relationship with the creation of true green consumers.

Kolmuss and Agyeman (2002) explained some cognitive and emotional barriers that might have a direct effect on consumers' green behavior. The barriers include: 1) slow deterioration of environment, 2) the complexity of environmental problems, 3) the non-immediacy nature of environmental problems, and 4) lack of awareness resulting in a lack of emotional involvement (Kolmuss and Agyeman, 2002). Another aspect of consumer skepticism is confusion associated with mixed advertisement messages and companies' false claims (Shrum et al., 1995). Moreover, the perceived high cost of green products, level of bureaucracy, lack of environmental regulations, strict regulations and price/convenience dilemma, could affect consumer skepticism concerning green consumption (Magrath, 1992; Ottman, 1994; Roberts, 1996). Skepticism could be another reason for the gap discussed in previous research between intentions to become green and the actual green behavior (Roberts, 1996). Hence, we specify our next hypotheses:

H1a: Consumer skepticism weakens the relationship between consciousness and the creation of true green consumers

H2a: Consumer skepticism weakens the relationship between the influence of external factors and the creation of true green consumers

Montgomery and Stone (2009) explained the concept of locus of control as control over external environment. When a person does not control external factors, they will not believe in the effectiveness of their actions in preserving the environment. This lack of control could cause some level of frustration for individuals; they become skeptical and unwilling to help. The authors called this the locus of control. This occurs when the individual has the skills to make others aware of current environmental issues. Hence, our next hypothesis is:

H1b: Locus of control affects the relationship between consciousness and the creation of true green consumers

H2b: Locus of control affects the relationship between external factors and the creation of true green consumers

Religion might be a source of guidance for environmental protection. Eckberg and Blocker (1989) found mixed results concerning christian beliefs concerning the environment. The Bible and the Quran provide guidance for environmental ethics (Ozdemir, 2003). Hence, we hypothesize

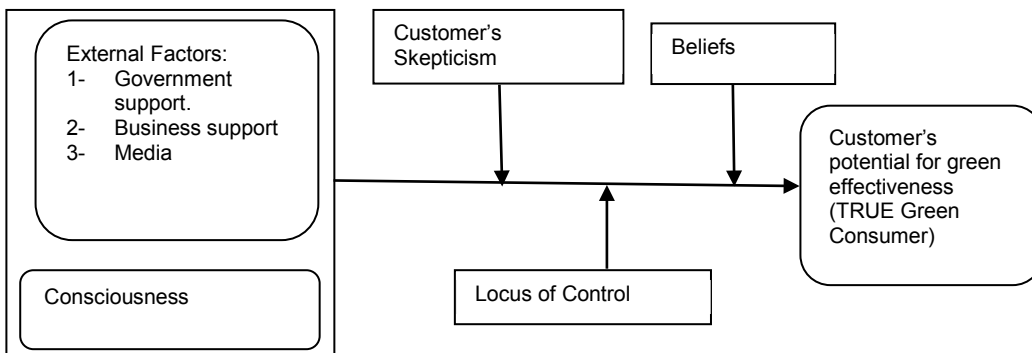
H1c: Spiritual Beliefs affect the relationship between consciousness and the creation of true green consumers

H1c: Spiritual Beliefs affect the relationship between external factors and the creation of true green consumers

DATA AND METHODOLOGY

Figure 1 outlines the research model utilized in this research. As depicted here the independent variables are antecedents that are important for turning consumers true green. The dependent variables represent what this research defines as true green consumer. That is a consumer who not only changes their own behavior to become more committed toward environmental protection, but also is committed to influencing their family, peers, and society.

Figure1: Research Model



This figure shows the general model used in this research. External factors and consciousness are the independent variables and the potential for truly green consumer is the dependent variable. Consumer skepticism, beliefs and locus of control are the moderators.

The survey was distributed to students in three countries. Translation was not needed because the selected universities are English-teaching. Some interviews were conducted with individuals and business experts in the field of marketing to prepare for the research. The survey method was chosen for three reasons: 1) simplicity, 2) time constraints and 3) a high level of generalizability (McGrath, 1982; Ary et al., 1996). The subjects are undergraduate and graduate students finishing their degrees in Kuwait University, University of Texas at Arlington, and Bilkent University in Ankara.

Based on Cook and Campbell (1976) several issues could affect the internal validity of the study. Most of these issues were controlled for by utilizing random selection. External validity applies in this study since the results could be applicable to different settings, times and groups of people (Cook and Campbell, 1976). The main threat to constructs' validity in this study is the problem of confounding constructs and the level of constructs (Campbell and Stanley, 1963). Thorough definition of constructs and the use of multiple scale items were adopted in order to control for threats to construct validity.

Some questions used in the survey were based on previously developed scales in the literature. Some questions were added for a better fit with the current research. Moreover, most questions were altered to obtain better fit and simplicity. The following are resources for the scales: 1) Consciousness (Roberts 1996 & 1999), 2) Skepticism (Weigel & Weigel, 1978 and Brwon and Wahlers, 1998), 3) Consumer effectiveness (Stone et al., 1995), 4) Government Role (Weigel & Weigel, 1978 and Brwon and Wahlers, 1998), 5) Beliefs and 6) Locus of control (Montgomery and Stone 2009). Researchers distributed an information sheet to the subjects indicating that participation was voluntary and there was no reward associated with participation. The contact information of the principle researcher was listed on the information sheet. All subjects were aware they would not be asked to provide any personal information.

Three hundred surveys were distributed in the College of Business at Kuwait University. The research assistant received 260 filled surveys including 251 with complete data. The total number of distributed surveys at The University of Texas at Arlington was 400 resulting in 258 useable surveys. Dr. Ahmet Ekici helped with the data collection process in Turkey. More than 300 surveys were distributed and 306 were returned resulting in 282 completed surveys for use in the study.

RESULTS

Table 1 shows that USA respondents believe their country’s environmental friendliness is good relative to Turkey and Kuwait. Table 2 shows that USA respondents believe in the economic success of their country. The majority of respondents in Kuwait do not believe in the economic success of their country.

Table 1: Perception of the Country’s Environmental Friendliness

Response	Kuwait		Turkey		USA	
	Freq.	%	Freq.	%	Freq.	%
YES	68	27.1	25	8.9	107	41.5
NO	183	72.9	257	91.1	151	58.5

This table shows responses to the question concerning perception about the country’s environmental friendliness, 27.1% of Kuwaitis said yes, 8.9% of Turks said yes and 41.5% of Americans said yes.

Table 2: Perception of the Country’s Economic Success

Response	Kuwait		Turkey		USA	
	Freq.	%	Freq.	%	Freq.	%
YES	84	33.5	38	13.5	208	80.6
NO	167	66.5	224	88.5	50	19.4

This table shows responses to the question about perception about the country’s economic success, 33.5% of Kuwaitis said yes, 13.5% Of Turks said yes and 80.6% of Americans said yes.

Exploratory factor analyses were used on the data from each country. The varimax rotation method was used to provide a better description of the extracted factors. A few items were deleted from all three datasets due to multiple loadings. To assess the reliability condition and reduction of random error, Cronbach coefficient alpha equal to or greater than 0.6 (Crano et al., 1973; Nunnally, 1978).

Table 3 shows the reliability of each factor used in the model for each country. The results show internal consistency of constructs used are high enough to prove the unidimensionality of the scales used. Moreover, the total variance explained for most of the constructs is high enough to show the variation occurring in the model. Table 4 presents descriptive statics of the model. The standard deviation shows the data points are close to the mean. The mean values show that most respondents agreed with statements included in the survey.

Tables 5, 6 and 7 represent the general results for the hypotheses in the three countries. Based on Table5, the coefficient of determination R2 values and the model fit (F-test) are support Hypotheses H1, H1c, H2,

and H2c tested in Kuwait. Table 6 presents the results for Turkey. These results show that hypotheses H1, H1c, H2, H2a and H2c were supported. Finally, Table 7 shows the USA results indicating support for Hypotheses H1, H1b, H1c, H2, H2b and H2c.

Table 3: Scale Reliability

Scale	Kuwait		Turkey		USA	
	Total Var. Explained	Alpha	Total Var. Explained	Alpha	Total Var. Explained	Alpha
Consciousness	17.97%	0.751	19.40%	0.848	20.70%	0.865
External	31.17%	0.905	29.30%	0.903	39.90%	0.943
Skepticism	41.34%	0.903	38.54%	0.753	50.70%	0.929
TrueGreen	50.33%	0.873	47.40%	0.896	59.80%	0.907
Locus Control	58.50%	0.906	55.20%	0.699	68.12%	0.920
Belief	65.70%	0.885	62.50%	0.961	76.44%	0.803

Extraction Method used is Principal Component Analysis with eigenvalues higher than 1.00. All of the obtained Cronbach alpha values are higher than 60%.

Table 4: Descriptive Statistics

Mean	Kuwait		Turkey			USA		
	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N
4.71	1.15	251	4.90	1.20	282	4.22	1.40	258
6.17	0.80	251	6.02	0.92	282	5.68	1.01	258
3.76	1.36	251	5.32	0.66	282	4.04	1.29	258
3.93	1.28	251	4.04	1.36	282	3.62	1.51	258
4.97	1.47	251	5.6	0.805	282	5.27	1.17	258
5.52	1.05	251	3.8	1.89	282	3.67	1.43	258

This table shows descriptive statistics of the sample. N is the sample size for each country. The 7-point likert scale used in this study indicates that values from 1 to 3 represent the disagreement among respondents. Values from 5 to 7 represent the agreement among respondents.

Table 5: General Results for Kuwait

H	KUWAIT				
	R2	Adj. R2	Beta	ANOVA F	Sig. **
H1	.292	.289	.541	102.8	.000***
H1a	.292	.287	.001	51.19	.984
H1b	.302	.296	.136	53.62	.065*
H1c	.341	.336	.400	64.27	.000***
H2	.067	.064	.260	17.98	.000***
H2a	.068	.060	-0.09	9.005	.766
H2b	.074	.067	.198	9.965	.172
H2c	.130	.123	.393	18.55	.000***

This table shows results of tests on Kuwait. ** = P < .05. Significant difference exists between consciousness and the creation of true green consumers. Consumers' skepticism and locus of control do not have any effect on the relationship between consciousness and the creation of true consumers. There is a marginal significant difference between consciousness and the creation of true green consumers when using beliefs as a moderator. Significant difference exists between external factors and the creation of true green consumers. This significant difference increases when introducing beliefs as a moderator. There is no significant difference between external factors and the creation of true green consumers when using consumers' skepticism and locus of control as moderators.

The combined results show consciousness has a relationship with the creation of true green consumers (H1) in each of the three countries. On the other hand, external factors have a clear effect on creating true green consumers, only in the United States (H2). Skepticism has a negative influence on that relationship (H1a, H2b). Spiritual beliefs have a moderating effect on the relationship between external factors and the creation of true green consumers in Kuwait and Turkey (H2c).

Table 6: General Results for Turkey

H	TURKEY				
	R2	Adj. R2	Beta	ANOVA F	Sig**
H1	.23	.227	.437	83.46	.000
H1a	.24	.235	.248	44.08	.052
H1b	.236	.231	.168	43.19	.116
H1c	.26	.255	.220	49.1	.001
H2	.034	.031	.185	9.87	.002
H2a	.064	.057	.288	9.465	.003
H2b	.04	.035	.145	6.06	.138
H2c	.102	.095	.283	15.78	.000

*This table shows results of tests on Turkey. ** = P < .05. Significant difference exists between consciousness and creation of true green consumers. Consumer skepticism and locus of control do not have any effect on the relationship between consciousness and the creation of true consumers. There is a marginal significant difference between consciousness and the creation of true green consumers when using beliefs as a moderator. Significant difference exists between external factors and the creation of true green consumers. There is a marginal significant difference when using consumer skepticism as a moderator. There is a significant difference when introducing beliefs as a moderator. There is no significant difference between external factors and the creation of true green consumers when using locus of control as moderators.*

Table 7: General Results for USA

H	USA				
	R2	Adj. R2	Beta	ANOVA F	Sig**
H1	.34	.334	.580	129.9	.000
H1a	.35	.343	.157	68.08	.036
H1b	.373	.37	.375	75.82	.000
H1c	.38	.37	.291	77.7	.000
H2	.303	.30	.550	111.23	.000
H2a	.317	.312	.139	59.19	.022
H2b	.336	.33	.269	64.4	.000
H2c	.35	.34	.272	68.32	.000

*This table shows results of tests on Turkey. ** = P < .05. Significant difference exists between consciousness and the creation of true green consumers. Consumers' skepticism does not have any effect on the relationship between consciousness and the creation of true consumers. There is a marginal significant difference between consciousness and the creation of true green consumers when using locus of control and beliefs as a moderators. Significant difference exists between external factors and the creation of true green consumers. There is a marginal significant difference when introducing locus of control and beliefs as a moderators. There is no significant difference between external factors and the creation of true green consumers when using consumers' skepticism and locus of control as moderators.*

CONCLUSION

This research examines the combination of factors that could create a true green consumers. The research started by presenting current environmental conditions and challenges facing the three countries investigated. The investigation of external factors, including the role of government, businesses and media, showed a positive effect on the creation of true green consumers in the three countries. Consciousness also showed a positive effect on the creation of true green consumers. Religious beliefs are the major factor strengthening the relationship between the two independent variables and the potential for the creation of true green consumers. The results suggest Kuwait and Turkey are in serious need for environmental education for the populations to understand the dangers of their consumption patterns. Understanding of the government role and locus of control could have shown results that are more significant if consumers were aware of the environmental laws and the citizen actions that are available in Turkey and Kuwait.

The main challenge facing this type of research is the difficulty of collecting sufficient data from three different cultures. Control over the sampling process and the survey distribution was another challenge especially, in Turkey. Other limitations are common when using a survey as the main instrument of data collection. These limitations include the level of honesty in the answers provided. The period of completing this project represented another limitation. Such research requires additional longitudinal type of research in order to capture the change in consumers' perspective over the years.

The logical next step for this line of research is to focus on the business point of view. The concept of business sustainability and social responsibility should be investigated based on the results of the current research. Another potential research direction is the focus on specific product and service categories and their hunt for true green consumers. It would be interesting to learn if consumers are true green only regarding specific product categories.

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