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# **An Exploratory Investigation of Green Behaviors and Attitudes towards Green Marketing Initiatives**

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## **ABSTRACT**

*A sample of 205 university students provided input regarding an array of 32 issues germane to both green marketing and green consumption. A diverse array of behaviors and opinions were articulated. Respondents reported a high propensity to engage in recycling, donating used goods, and purchasing products with a longer life expectancy. They favored environmentally-friendly actions such as focusing on cleaner and more efficient energy alternatives. There was a strong belief that individuals can make a difference. A comparison of business and nonbusiness students documented significant differences on two of the 32 issues under investigation with nonbusiness students expressing greater concern for the purchase of used items as well as the belief that the misbehavior of corporations renders individual behavior ineffective. Gender produced dramatically different results with statistically significant differences between men and women documented for 17 of the 32 issues. Women were far more concerned and more likely to engage in environmentally-friendly behavior. An investigation focusing on the three age groups documented only four issues where there was a significant difference with the oldest segment the most concerned in each case. A proposed typology allowed respondents to place themselves in the category that they deemed to best fit themselves. Fully 66.2 percent of the respondents placed themselves in the middle category – eco-aware. Only 1.5 percent felt they were eco-destroyers, and a modest 3.4 percent declared themselves to be eco-warriors. Differences across the five segments were documented.*

## **INTRODUCTION**

*Consumers around the world are saying loud and clear that a brand's social purpose is among the factors that influence purchase decisions. This behavior is on the rise and it provides opportunities for meaningful impact in our communities, in addition to helping to grow share for brands. - Amy Fenton*

The above quote by Amy Fenton (2014) provides an excellent segue into the current study. The implication is that green marketing strategies appeal to green consumers, but in reality there are three parties that potentially benefit: the buyer, the seller, and the population at large. Such is the

gist of going green. But if going green makes so much sense, why do some buyers and sellers fail to board the proverbial green bandwagon?

The popular press is replete with stories of corporate misbehavior when it comes to negative issues germane to the environment. Perhaps none is as onerous as the recent admission by Volkswagen that it was manipulating the on-board software on some of its diesel vehicles so as to create the false impression that it was meeting government-imposed emissions standards. The reality was that Volkswagen cars were polluting the air. Consumers who thought they were driving “cleaner” cars that didn’t deplete our fossil fuel inventory were doing exactly what they had hoped to avoid; that is to say they were wasting oil, polluting the atmosphere, and potentially contributing to global warming. Yet their intentions were good. Many consumers today are seeking solutions that allow them to fulfil the lifestyle they seek while not imposing negative consequences on others. They purchase products that conserve resources and don’t pollute our air and water. They often dispose of products in an environmentally-benign manner. For example, they consider alternatives to the garbage dump when they dispose of products that have fulfilled their purpose. These consumers might recycle refuse or compost food waste. Or if the product is still useful, they might donate it to a charity so that others can continue to benefit from the use of the products while concurrently not imposing harm on the environment in which we all coexist. There are many terms applied to these individuals, but the most common moniker used over the past few years is *green consumers* (Roberts, 1996). They seek to help keep our planet green. According to a report published by Euro Monitor International, “the future is green” (Anonymous, 2016). The current study focuses on these green consumers. It serves as an exploratory study that will allow the authors to fine tune the data collection instrument for a larger study of the American population. Yet at the same time, it provides a snapshot of an important market segment, university students.

## GREEN MARKETING

As noted in the previous paragraph, there are a number of ways in which these green consumers have been characterized. Not only are they green consumers (Cheeseworth, 2015; Roberts, 1996), but they are environmentally-conscious consumers (Royne et al, 2016; Brown and Wahlers, 1998), customer citizens (Fowler, 2014), eco warriors (Roy, 2015), and eco worriers (Anonymous, 2016). All of these terms can typically be tied to the goal of sustainability. From an aggregate perspective, they refer to *ethical consumers* (Harrison and Newholm, 2005) as well as *ethical consumption* (Lewis and Potter, 2011).

Irrespective of the moniker applied to these consumers, their presence as a major segment of the market has led to the emergence of so-called *green marketing* strategies. *Inc.* magazine has referred to green marketing as “a business practice that takes into account consumer concerns about promoting preservation and conservation of the natural environment” (Anonymous, 2016). Green marketing campaigns highlight the superior environmental protection characteristics of a company's goods and services. Of course this mindset led to the development of *green products*. To be deemed green, several characteristics must be present. An early assessment of green products stated that they should not: endanger the health of people or animals; damage the environment at any stage of its life (including manufacture, use, and disposal); consume a

disproportionate amount of energy and other resources during manufacture, use, or disposal; cause unnecessary waste, either as a result of excessive packaging or a short useful life; involve the unnecessary use of or cruelty to animals; or use materials derived from threatened species or environments (Elkington, Hailes, and Makower, 1990). In this regard, green marketing was recently characterized as *the next big thing* and is seen as one way by which a marketer can gain a differential advantage over its competition (Rajeev, 2016). This logic is consistent with Fowler's earlier quote which stated that green marketing initiatives will help to grow a marketer's brand share.

Recent research documented the presence of a relationship between one's purchase intention and the consumers' corresponding perception of an organization's efforts to engage in so-called green behavior. Based on these companies' claims, it was found that consumers indicated a greater propensity to purchase from marketers who claimed their products and the production process were ecologically positive, that pollution was reduced, that energy was conserved, and the carbon footprint was minimized (Huang, Huang, and Lee, 2015). A more recent study documented findings in South Africa where a significantly large proportion of consumers indicated a preference to patronize retailers that were deemed to be socially responsible (Govender and Govender, 2016). Yet the reality is that consumers are skeptical of firms claiming to be green (Ulusoy and Barretta, 2016). Firms that make such claims without those claims matching reality are said to be *greenwashing*, a tactic that is truly disdained by green consumers (Kewalramani and Sobelsohn, 2012).

While an ultimate objective of the current project is to develop a typology of green consumers, one recent study looked at the other side of the buyer-seller dyad. From this opposite perspective, that study focused on the green marketing strategy used by the sellers rather than the green consumption behavior of the buyers. As such, it addressed a seller's stakeholders and how they might influence the green strategy implemented by the organization. The four stakeholder groups were designated accordingly as: Market Stakeholders; Social Pressure Groups; Immediate Providers; and Legal Stakeholders (Rivera-Camino, 2007). The implication is that there are different strategies which can be used to appeal to the four different groups of stakeholders.

There is evidence that both sides of the buyer-seller dyad have exhibited concern regarding the environmental impact of their actions. From the sellers' side, in 2009, a neighborhood in Atlanta became a so-called carbon-neutral zone. Seventeen businesses had their carbon footprint measured and then pledged to partner with the Valley Wood Carbon Sequestration Project in an effort to neutralize any negative impact resulting from their operations (Auchmutey, 2009). The intent was to appeal to the green consumer. This seems only logical given a 2008 study by Yankelovich which indicated that 22 percent of the American consumers believed that they alone could make a difference for the environment (Greenbiz.com, 2008). So now we will intensify our focus on the buyers - that is to say on the *green consumers*.

## **THE LITERATURE ON THE GREEN CONSUMER**

Regarding green consumer behavior, there is an ongoing belief that some consumers, but certainly not all, are willing to pay a premium for products that meet their expectations regarding

a lack of harm to the environment. One study performed in five highly-developed countries found that approximately one third of the survey's respondents indicated a willingness to do so. But also noteworthy is the fact that this willingness varied significantly across the five countries (Grande, 2007). This cross-national difference was also documented in a study that focused on consumers in China, Greece, and Turkey (Yilmazsoy, Schmidbauer, and Rösch, 2015). More recently, a report by A.C. Nielsen stated that "Fifty-five percent of global online consumers across 60 countries say they are willing to pay more for products and services provided by companies that are committed to positive social and environmental impact" (Kilkenny, 2014). Regarding the aforementioned willingness to pay (WTP) more for green products, a recent study reported that the mere presence of an ecological message claim enhances the strength of the relationship between WTP and the consumer's purchase intentions (Ayadi and Lapeyre, 2016). Similarly, citing a reduction in waste, consumers have expressed a willingness to pay for *eco-certified refurbished products*; however, that WTP for such products is low (Harms and Linton, 2016). And despite this stated willingness, it has been reported that so-called environmentally-conscious purchase behavior comprises only one to five percent of the marketplace expenditures in the American market. But despite this paltry number, the author of that study posited that "it is already making a difference" (O'Rourke, 2012).

Consider a study of younger, more highly educated consumers in India. The authors reported that green purchase behavior was correlated to – in descending order of importance – social influences, attitudes towards green purchase behavior, perceived knowledge about the environment, self-reported recycling behavior, eco-labelling, and the extent to which they are exposed to environmental messages via the media (Joshi and Rahman, 2016). So while some research offers the premise that consumers of certain socio-demographic groups are more prone to engage in behavior aimed at sustainability, such findings are far from unanimous. A recent study indicated that there were certain conditions (or situational factors) under which pro-environmental attitudes were more important in the task of predicting sustainable consumption behaviors. In fact, when looking at the purchase of food products, there was significant variation across categories. Yet the authors of that study still reported that one's level of education was a key predictor of an aggregate measure of sustainable consumption (Panzone, Hilton, Sale and Cohen, 2016). Another factor which is related to an individual's propensity to engage in green consumption is the "conspicuousness" of the behavior. If it is easily observable by others, then the consumer is more likely to behave in an environmentally-friendly manner (Aagerup and Nilsson, 2016). In essence, one's reference groups influence an individual consumer's overt behavior. This premise is supported by the findings of another study, but while green consumption was found to be peer related, the overarching influence was found to be an individual's concern for the environment irrespective of any peer influence (Welsch and Kühling, 2016).

On a disconcerting note, while consumers seem willing to embrace sustainable behavior, the reality is that there is a likely gap between what they say and what they do (Yilmazsoy, Schmidbauer, and Rösch, 2015). In 2011, this phenomenon was characterized as the *green gap* (Nielsen, 2011). This finding was also supported in a study that explored the gap between consumers' rhetoric and their actual purchase behavior (Johnstone and Tan, 2015). In that same study, the authors identified three barriers to green behavior: *it is too hard to be green, a green*



*stigma, and green reservations.* In essence some consumers shy away from green behavior because they have unfavorable perceptions of both green consumers and green messages. Perhaps this reluctance can be traced to greenwashing, a behavior earlier described as businesses proclaiming to be green when in reality they are not (Kewalramani and Sobelsohn, 2012).

As is common when the focus is on consumer behavior, typologies have been devised based upon differences across groups of consumers. From the simplest perspective, consumers are classified into one of two strata: green or non-green. One typology of green consumer behavior identified five categories of sustainable behaviors. These five categories were related to an array of demographic variables, but more importantly, they were predicated upon the consumers' concerns regarding energy, food, water, waste, and eco-friendly behaviors such as concern for wildlife (Royne, et al, 2016). Combining micromarketing and macromarketing perspectives, one typology identified four segments of green consumers. These four segments are the blind green consumer, the individual green citizen, the collective green consumer, and the collective green citizen (Prothero et al, 2010). Another interesting typology reported by Kreidler and Joseph-Matthews (2009) identified four segments; they were designated as Lohas (acronym for Lifestyles of Health and Sustainability), Nomadics, Centrists, and Indifferents. Yet those authors offered their own classification for green consumers; it was comprised of True-Blue Green, Lean Green, Surface Green, and Craven Green consumers. Another study delineated Translators, Exceptors, and Selectors (McDonald et al, 2012). Obviously there is no shortage of typologies for green consumers, but equally obvious is the reality that there is no consensus regarding one singular typology for all interested parties to use.

A synopsis of the literature provides us with a basis for understanding several key aspects of this segment of consumers. First, green consumers are not a new phenomenon. Second, there is a meaningful segment of these consumers who express concern over how our behavior as businesses and consumers impacts the environment in an adverse way. Third, there are a significant number of consumers who reportedly behave in a more eco-friendly manner. Fourth, the segment of green consumers continues to grow. Finally, there is an array of demographic and geographic dimensions that are inextricably tied to both the attitudes and overt consumer behavior associated with green production and consumption. Despite the reality that green consumers are not a new group, the philosophy continues to evolve. Thus, more research is needed so as to gain a better understanding of what the green phenomenon means to practitioners. This research addresses this deficiency.

## **RESEARCH OBJECTIVES**

As with every exploratory study, the underlying objective of this research is to provide a framework for future studies. In line with this overarching objective, there are specific outcomes that are being sought in the current study.

First and foremost is the objective of determining university students' positions regarding an array of green initiatives. These initiatives address the behavior of consumers regarding purchase, consumption, and disposal decisions. Focus will also be directed towards issues important to the aspiring or active green marketer. Using these results, a comparison of business

students and nonbusiness students will identify any differences regarding the two groups' perceptions and behaviors as consumers in the marketplace.

Second is the objective of identifying differences across the various segments other than differences based upon their major. This includes gender and age.

Third is the objective of assessing a broad-based typology based upon the respondents' self-image. The proposed typology will be examined in regard to the distribution of respondents across the five pre-determined categories of consumers. Are there certain characteristics that serve to differentiate among the identifiable groups of consumers with a specific focus directed towards the segments at each end of the continuum?

Finally, the results of this study will provide the basis for a final edit of the data collection instrument. This revised survey will be used for a national study of the general American population that is tentatively scheduled for late 2017.

## **METHODOLOGY**

The research was initiated with a review of the pertinent literature in order to determine the salient issues germane to green consumption. This review led to the development of the initial draft of the survey. The survey sought responses to a number of items addressing attitudes, knowledge, and behavior. It also included the typical set of demographic identifiers including gender, age, and major. However, the primary focus was on psychographics. This emphasis is consistent with the assertion by Kreidler and Joseph-Mathews (2009) that segmentation of green consumers would be more valuable if the focus was on psychographics rather than the more traditional socioeconomic considerations.

Data were collected in mass lectures of multiple sections of principles of marketing classes. It was believed that using this course as a sampling frame would provide a diverse array of majors and would not disproportionately include any one group. The surveys were distributed in class. As an internal check, two very similar questions were asked. If the student's responses to these two questions were illogical, then the survey was not included in the database. This was designed to help assure some degree of internal validity.

Simple descriptive statistics were calculated to assess the prevailing attitudes and behaviors of the respondents. As such, simple means and frequency distributions were used. To identify difference across the various groups, depending upon the number of groups, either a t-test or One-way Analysis of Variance was used. A probability of .05 or less was required to reject the null hypotheses of equal means across the groups under scrutiny.

The initial development of the eco-typology was based on a self-reported classification. This is predicated upon a cross-national study that identified four segments ranging from "least green" to "greenest" consumers (Yilmazsoy, Schmidbauer, and Rösch, 2015). For the current study, the rationale is to gain an understanding of how consumers view themselves. In the follow-up study, a cluster analysis will be used to objectively group the respondents so as to allow for the

comparison of one's self-assessment to the empirical placement in one of the five designated groups. This exploratory study is designed to help the authors better understand any problems germane to this aspect of the methodology before proceeding to the second phase of the research.

## RESULTS

A total of 208 completed surveys were collected over the two days devoted to data collection. Three surveys failed the validity test, so the net usable sample was 205. Of these, there were a limited number of cases where a respondent did not answer a particular question. In these cases of item non-response, the issue under scrutiny was assigned a number representing a missing value, but the rest of these individuals' responses were included in the subsequent analyses.

The initial objective was that of determining university students' positions regarding an array of green initiatives. The first look was at 11 specific behaviors. Responses regarding the tendency to engage in each of the 11 environmentally-friendly behaviors were measured on a five-point itemized rating scaled anchored by the polar adjectives of "always" and "never." Based on this assessment, the three most common behaviors in which the respondents chose to act were: the overt decision to evaluate a list of alternatives in a product category and purchase the one that is projected to last the longest; to recycle used products, packaging, and paper; and to donate used items rather than simply discarding them through their regular trash collection service. Conversely, at the other end of the spectrum, the three environmentally-friendly behaviors in which the respondents indicated the lowest propensity to engage were: to compost food waste; to seek to purchase products for which the packaging is made from recycled materials; and to purchase organic food. These findings are generally supported by both the mean scores and the corresponding frequency distributions for the 11 behaviors. Table 1 provides an overview of these results addressing the buyers' behavior. It is important to note that the mid-point of this scale is three and that lower mean scores are associated with a greater frequency for engaging in the behavior under scrutiny.

**TABLE 1**  
**Overview of Tendency to Engage in 11 Environmentally-Friendly Behaviors**

<b>BEHAVIOR</b>	<b>Mean</b>	<b>% Usually or Always</b>
Buy "Longest Lasting" Product Choice	2.31	66.3
Recycle	2.46	56.1
Donate Used Items; Not Throw in Trash	2.69	48.8
Buy Environmentally-Safe Cleaning Products	2.94	41.0
Buy Environmentally-Safe Personal Care Products	3.12	35.1
Seek Energy Efficient Solutions	3.15	21.5
Purchase Used/Second Hand Products	3.23	19.2
Buy Products Made from Recycled Materials	3.52	8.3
Buy Organic Food	3.53	16.1
Buy Products in Packaging that is Recycled	3.55	11.2
Compost Food Waste	3.89	12.7



Another component of objective one was to determine the prevailing attitudes regarding an array of 21 different green marketing considerations. These include behaviors and motivations for green behaviors on the part of the buyers and sellers as well as general concerns about the environment. As such, these concerns might be addressed by marketers seeking to capitalize on issues deemed important to the consumers. For example, recycling is viewed very positively by the respondents. In order to capitalize on this phenomenon, the marketer might benefit by initiating a recycling program and promoting it to the consumers. That is exactly what Delta Airlines has done in an effort to address concerns about its carbon footprint. For these questions, a six-point Likert scale anchored by “strongly disagree” and “strongly agree” was employed.

**Table 2**  
**Overview of Attitudes Regarding 21 Issues Germane to Green Marketers**

<b>ISSUE</b>	<b>Mean</b>	<b>% Agreeing (4-6)</b>
Recycling is Environmentally-Responsible	5.42	99.5
Switch to Alternative Energy (wind, solar) is Good	5.21	94.6
Buying Energy Efficient Items Good for Environment	5.04	98.5
Products should be Made to Last Longer	5.01	96.1
Composting Waste Is Good for the Environment	4.66	91.7
Buying Used Products is Environmentally-Good	4.66	90.7
Need Stricter Government Regulations	4.65	90.2
Animal Testing is Harmful to Environment	4.55	78.0
Buying Organic Foods is Good for Environment	4.38	82.0
Consumers as much as Business to Blame for GW	4.35	84.4
I am More Likely to Purchase from EF Companies	4.06	74.6
Planned Obsolescence	4.05	70.2
Global Warming	3.95	70.7
Pay More for Environmentally-Friendly Goods	3.82	66.3
Switch to Nuclear Energy is Positive Change	3.69	62.4
Companies Act Green for Profit rather than Environment	3.66	62.3
Evoked Set Always Includes Green Alternative	3.61	57.1
Unacceptable to Invest in Harmful Companies	3.45	50.2
Fashion Causes Premature Discard of Good Clothes	3.40	48.3
Corporate Behavior Trumps Individual Acts	2.74*	28.4
I Cannot Make a Difference, so I Don't Worry	2.51*	16.6

\* Items where lower mean score (disagreement) represents more environmental concern

There were four items with means exceeding 5.0 on the six-point scale with at least 94.6 percent of the respondents indicating some level of agreement. These issues were: the impact of recycling; the impact of switching to (non-nuclear) alternative energy sources; the impact of the purchase of energy efficient items; and the idea that products should be made to last longer. Conversely, there were four items with means below the 3.5 midpoint with fewer than 50 percent stating some level of agreement. This eclectic set of issues included: acceptance of investing in companies that harm the environment; that fashion changes result in the premature discard of

otherwise good clothing; that corporate behavior overwhelms any individual’s behavior; and that the individual respondent cannot make a difference (so he/she is not motivated to engage in green consumption). For these last two items, disagreement is actually a positive outcome. By disagreeing, the respondents are indicating that individuals can in fact make a difference – that the onus is not solely on the seller.

Of note in this section is the prevailing attitude regarding global warming. The mean of 3.95 is not far above the midpoint. And while 70.7 percent agree that global warming concerns them, much of the agreement is lukewarm with fully 36.6 percent of the respondents indicating only a “slight” level of agreement with the statement.

Table 2 provides an overview of these results. The mid-point of the scale is 3.5 with higher means reflecting a greater level of agreement with the issue. Two statistics are presented in Table 2. In addition to the mean response, the percentage of respondents who indicated any level of agreement with the statement is provided. The two statistics pretty much tell the same story as they are strongly correlated. It is important to note that the issues as they are described in Table 2 reflect the authors’ efforts to describe them to the readers of this paper. In other words, it may not reflect the actual wording on the survey. For example, the terms “planned obsolescence” and “evoked set” did not appear on the survey; rather they are being used to summarize the issue that was described on the survey.

The final component of the initial objective was that of identifying differences between students who are majoring in a business discipline and those who are not. A simple t-test was used to identify statistically significant differences between the two groups regarding each of the 32 items addressed to this point in the analysis. A probability of  $\leq .05$  was required in order to reject the null hypothesis of equal means. For the 32 items under scrutiny, significant differences were documented only two times. This outcome was modestly surprising given the prevailing thought that nonbusiness students tend to be more proactively environmentally-involved and more critical of environmental abusers. Albeit limited evidence, the two documented differences support this premise. Nonbusiness students are more in agreement that corporate misbehavior overwhelms the actions of individual consumers, and they are more prone to purchase used/second hand items. Table 3 provides a summary of those items where a statistically significant difference was documented.

**Table 3**  
**Comparison of Business and Non-Business Majors on the 32 Issues**

<b>ISSUE</b>	<b>Bus. Mean</b>	<b>Non-Bus. Mean</b>	<b>Sig.</b>
Seek to purchase used/second hand items	3.31	2.98*	.029
Corporate misbehavior trumps individual action	2.60	2.98	.050

\* Item where lower mean score represents more environmental concern

With objective one now achieved, the focus shifts to the second objective – that of determining differences across different gender and age groups. Based on historical precedent, one would anticipate that women and older consumers would be more environmentally concerned. This turned out to be the case. In regard to the 11 specific environmentally-friendly behaviors, women reported a higher instance of engaging in five of them whereas men were more inclined to engage in a single action. Table 4 summarizes these results. It is essential to recall that these behaviors were measured on a five-point scale with the lower mean representing a greater propensity to engage in the behavior under scrutiny.

**Table 4**  
**Behaviors Where One Sex Was Found to be More Environmentally-inclined**

<b>ISSUE</b>	<b>Male Mean</b>	<b>Female Mean</b>	<b>Sig.</b>
<b>Women More Environmentally-Inclined</b>			
Donate Used Items; Not Throw in Trash	2.98	2.35	.000
Buy Products in Packaging that is Recycled	3.70	3.38	.012
Buy Environmentally-Safe Personal Care Products	3.31	2.91	.012
Buy Organic Food	3.68	3.35	.019
Buy Products Made from Recycled Materials	3.65	3.38	.026
<b>Men More Environmentally-Inclined</b>			
Buy “Longest Lasting” Product Choice	2.13*	2.53	.001

Next was the examination of the 21 opinions regarding the actions of consumers and business organizations. For the 21 items under scrutiny, significant differences were documented for 11 of them. In all 11 cases, women were deemed to express more concern. The biggest disparities between the sexes were the opinion regarding the harm caused by animal testing, the benefit of purchasing organic foods, and the act of investing (such as purchasing stock) in companies that are known to create environmental harm.

**Table 5**  
**Items Where Women Expressed Greater Concern for the Environment**

<b>ISSUE</b>	<b>Male Mean</b>	<b>Female Mean</b>	<b>Sig.</b>
Animal Testing is Harmful to Environment	4.14	5.03	.000
Buying Organic Foods is Good for Environment	4.08	4.73	.000
Unacceptable to Invest in Harmful Companies	3.25	3.89	.000
Buying Used Products is Environmentally Good	4.40	4.97	.000
Composting Waste Is Good for the Environment	4.43	4.92	.000
Consumers as much as Business to Blame for GW	4.10	4.63	.000
I am More Likely to Purchase from EF Companies	3.92	4.23	.000
Recycling is Environmentally Responsible	5.28	5.58	.002
Need Stricter Government Regulations	3.38	4.09	.003
Evoked Set Always Includes Green Alternative	3.44	3.81	.014
I am More Likely to Purchase from EF Companies	3.92	4.23	.044

Table 5 documents those 11 issues where women expressed a greater concern regarding a specific issue tied to a degradation of the environment. For these items, it is important to recall that a six-point scale was used and that the higher means represent greater agreement with the issue at hand.

Differences across the three age groups were not as abundant as what surfaced when the focus was on gender. However, it must be noted that the population under scrutiny was college students and the three age groups did not represent a huge range. In fact, 86.3 percent of the respondents were under 25 years of age. Still the fact that four statistically significant scenarios were documented is worthy of addressing. For each issue where age was found to be related to one's behavior or opinion, not surprisingly, it was the oldest group of students who were more concerned. Table 6 summarizes these four issues.

**Table 6**  
**Items Where Age-based Differences Were Documented**

<b>ISSUE</b>	<b>Most Environmentally-Involved/Concerned Age Group</b>
I Buy Organic Foods	Oldest
I Seek Energy Efficient Solutions	Oldest
Stricter Government Regulations Are Needed	Oldest
Composting is Good Way to be Environmentally Friendly	Oldest

Objective three addressed the task of having respondents self-assign themselves to one of five groups representing a potential typology of green consumers. The respondents tended to place themselves in the centrist category with fully 66.2 percent of the valid responses indicating a belief that they were best classified as *eco-aware*. However, 10.3 percent of the respondents placed themselves in one of the two categories that reflect a higher degree of concern for the environment. Conversely, the remaining 23.5 percent of the respondents placed themselves in one of the two categories where members could be inferred to possess little or no concern for the environment. These results are summarized in Table 7.

**Table 7**  
**Self-classification in a Tentative Typology of Green Consumers**

<b>Category</b>	<b>% of Respondents</b>
Eco-Destroyer	1.5
Eco-Indifferent	22.1
Eco-Aware	66.2
Eco-Worrier	6.9
Eco-Warrior	3.4

The final component of the third objective addressed the task of identifying differences across the five segments of green (or not-so-green) consumers. Statistically significant differences were documented for eight of the 11 self-reported behaviors. In general, as one might anticipate, the



eco-worriers and eco-warriors were more inclined to engage in these environmentally-friendly ways than were the eco-destroyers and the eco-indifferents. The eight behaviors where these differences were in evidence are:

- I Recycle,
- Donate Used Items; Not Throw in Trash,
- Buy Environmentally-Safe Cleaning Products,
- Buy Environmentally-Safe Personal Care Products,
- Seek Energy Efficient Solutions,
- Buy Products Made from Recycled Materials,
- Buy Organic Food, and
- Buy Products in Packaging that is Recycled.

When the focus shifted to attitudes regarding business and other consumers' behaviors, the differences were less pronounced. For the 21 issues delineated in the data collection instrument, only four statistically significant differences were in evidence. As with the overt behaviors just discussed, the eco-worriers and eco-warriors were more critical than were the eco-destroyers and the eco-indifferents. The four items where differences were documented were:

- Corporate Misbehavior Trumps an Individual's Proactive Efforts,
- The Government Should Impose Stricter Environmental Laws,
- Corporations Purposely Engage in Planned Obsolescence, and
- People should be OK with Paying Higher Prices for EF Products.

The fourth and final objective of this research was to provide feedback regarding the task of developing a finalized version of the survey to be used in a national sample of heads-of-households. It has done just that. Several questions will be added; several will be significantly modified. Many questions will be reordered and several additional demographic questions will be added. It is truly believed that this project has led to meaningful insight regarding the student population while concurrently assisting in the planning process of a larger, more meaningful study of the general population.

## **Conclusions**

Green Marketing has its advocates; however, it is far from universal. Yet it is apparent that green consumers are attempting to engage in consumption behaviors that are best characterized as environmentally-friendly. These consumers concurrently believe that an individual's positive actions can make a difference. The issue of global warming is still subject to question although the respondents did indicate a modest concern for the phenomenon. Differences were found regarding both overt behavior and opinions regarding environmental issues when comparing men to women, business majors to nonbusiness majors, different age groups, and the five categories of green consumers.

This project has set the stage for a more thorough examination of the U.S. heads-of-households population which will be undertaken in late 2017. A number of modifications to the questionnaire will be made based on feedback on this survey. So in two regards, this exploratory

study has made a positive contribution. We learned more about the green phenomenon among the population of university students while insuring an even more effective study for the second phase of the research. This is exactly what the authors had hoped to accomplish when first discussing the project.

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