Effect of Sustainability Package Advertising on Consumer Purchases

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Abstract

This research project focused on factors influencing consumers’ purchasing behavior. Specifically, the project focused on sustainability of packaging and attempted to find if sustainability of a package (represented by post-consumer content) affected a consumer’s decision to buy that product. The specific question asked was: “Are consumers willing to purchase a product based on the environmental friendliness of its package even if it goes against the consumer’s brand preference, or if it has a higher price point than competing products?” Research data was gathered through a multi-page survey comprised of seven questions of varying complexity. Participants were primarily aged 18-25 and the majority female, but the ages of participants range from 19 to 60 years. It was found that participants choose products based on price, quality and brand rather than sustainability. The results of this study suggest that it would not be profitable for a company to spend money marketing or advertising sustainability of a product’s package, especially if it affects the quality or look of the package or the retail price of the product.

*Keywords:* paperboard, post-consumer, recycled, sustainability
Chapter 1

Purpose

Over the last two decades, there has been increasing concern over global warming, safe disposal of waste, and the renewability of resources. The push to address these concerns has become known as the “Green Movement” or “Sustainability Movement.” A combination of federal requirements and customer interest has motivated many companies to research this movement and prompted some of them to change their business practices. Most companies understand the traditional methods of convincing consumers to buy their product (brand recognition, price, attractiveness of package design, shelf placement, etc.) but perhaps do not see the potential of sustainability as an influencer. Companies that ignore consumers’ interest in sustainability and the “green” movement may not be capturing as much of the market as they could. Something as simple as moving a post-consumer material seal from the back of a package to the front (where it can be seen by shoppers) could turn a “green-minded” skeptic into a customer. Therefore, the purpose of this research was to determine if advertising recycled material on the front of primary paperboard packaging (clearly visible to customers) affects consumer purchases, specifically when the choice is between two equivalent products.

This research focused on the addition of a post-consumer material label or seal on the face of a paperboard package to find if incorporating it into the graphics of the package has any effect on the consumer. The research was limited to paperboard packaging and the effect that modifying package labels to increase awareness of sustainability has on consumer purchasing behavior.
Significance of the study

With pressure from both consumers and governments to adopt sustainable business practices, it may be in the best interest of product manufacturers to market sustainability alongside product features. This project is intended to discover if manufacturers can increase profits and/or expand their customer base by marketing sustainability as a selling point, and to gauge consumer interest in sustainability. It can potentially serve as a reference for any company interested in sustainability or in marketing their current sustainability efforts to consumers.

Interest in the Problem

This project incorporates graphic design (design of sustainability labels), packaging, and psychology, which are my areas of study. In addition to my interest in these subjects, I wanted to know whether or not the efforts of alternative energy companies and the EPA to educate the public on issues of sustainability have been effective and if they have been convincing enough to influence consumers’ daily decisions. I believe people need to consider the impact of their actions on the environment as a part of their daily routines, because what we do today will could seriously affect the earth over the course of the next century. I think this issue is important enough to influence purchasing decisions and I am interested to see if others feel the same.
Chapter Two

Literature Review

This Literature Review explored the possibility of using “green” labels, specifically labels advertising post-consumer recycled content on paperboard packaging, recycling, and paperboard packaging. Furthermore, investigated sustainability and environmental friendliness as a purchasing influence metric of its own (alongside brand loyalty, price, package attractiveness, shelf placement, etc.). It is reasonable to assume that consumers will be more likely to select a product at the store if the use of recycled material in the packaging is prominently displayed on the face of the package so consumers become aware of it immediately before making that split-second purchasing decision.

In a Marketing Magazine article from Haymarket Publishing, the author examines whether ‘green’ is a selling point for customers today. Market research company, Ipsos MORI, conducted a survey where results showed that 43% of people cited social responsibility as being important to their purchasing decisions in 2008 and only 29% cited it in 2011 (“Transparently Green” 2012). This could be a result of the economic climate in 2011, less media coverage of environmental impact after 2008, or perhaps the results from 2008 were impacted by the global warming message in the 2006 movie, “An Inconvenient Truth.” Regardless, consumers today have still made their concern for the “green movement” known, as a 2011 GfK Roper Consulting survey shows that 75% of consumers think that all companies need to take action to be “environmentally friendly” (“Transparently Green” 2012). British supermarket chain, ASDA, has conducted its own research, finding that almost half of consumers want clear signs or labels showing where
“green products” are located in the store (“Transparently Green” 2012). This last piece of information is particularly relevant because consumers desiring easy-to-spot “green products” should be more likely to purchase products in packages labeled as containing post-consumer material or post-consumer waste.

There is no question that many consumers express concern for the environment and a desire to purchase products from companies that share that concern, but “concern” does not necessarily translate into real buying habits. Especially in the current market, price is such a powerful influence that environmental friendliness may not be something that consumers actually base their decisions on in the store. Branding and sustainability consulting company, Ogilvy Earth, finds a 30-point difference between U.S. consumers’ “green” beliefs and actual purchasing habits or actions (Haymarket Publishing 2012). The point system being used is not discussed, but there was still a large gap compared to the 14-point difference in Chinese markets (Haymarket Publishing 2012). Price seems to be the best metric for determining what product a consumer will choose, but the question remains: how much more likely is a consumer to choose a “green” product if the product is clearly identified on the shelf as “green” when the price difference compared to other, similar products is minimal.

J.K. Hwang, President of cosmetic packager FS Korea Industries, believed that people want to purchase something that’s environmentally friendly (Toloken, 2011) and that environmental impact will become a central focus in the cosmetics industry. He said: “Measuring the environmental impact of a package from beginning to end, and being able to explain how a growth strategy improves that total positioning, is where we need to go” (Toloken 2011). It should be noted that although Hwang speaks from the perspective of
an expert in the packaging industry, he referred to the packaging industry in Eastern Asia (China and Korea specifically). The opinions and concerns of Chinese and Korean consumers are not necessarily representative of their American counterparts. Even in FS Korea’s market, product appearance is considered a far more important factor than “green” initiatives or sustainability advertising when it comes to convincing consumer to make a purchase. FS Korea was able to use 20% post-consumer material in products without making a sacrifice in appearance or quality that they believe would be significant enough to affect sales (Toloken 2011). When it comes to plastic packaging, many companies hesitate to use resins made from post-consumer materials because it does not have the same quality of appearance as resin made from new material (Toloken 2011). Paperboard products do not have the exact same problem, but there are limitations to how much recycled fiber can be used for particular paperboard packaging applications without having negative impacts on the quality.

Despite serving different markets, ASDA and FS Korea would probably both agree that advertising sustainability (post consumer material, waste reduction, environmental responsibility) can potentially raise brand awareness and attract new customers, but the consumer who places more value on sustainability than price, quality, or appearance is difficult to find. Among these factors, it is no surprise that sustainability usually comes in last place in order of importance to consumers. The majority of people simply place more value on price, quality, and appearance of a package, but there is certainly awareness about the importance of recycling and reusing post-consumer waste. This is a significant jump from 20 or 30 years ago, when sustainability was not considered a factor at all (Bond 2012). Some corporations and manufacturers still believe
that this factor is important enough to make large efforts to address. Some even go so far as to “greenwash” when they draft sustainability reports, meaning they exaggerate or provide outright misinformation on environmental conservation efforts, recycling, etc. (Bond Jr. 2012).

Companies are now recognizing that positive sustainability reports can further their reputation amongst customers (Bong Jr. 2012). It really sends the message to current or potential customers that they are environmentally responsible and therefore a more ethical choice than a competitor who does not have such a positive sustainability report. “Greenwashing” proves that many businesses believe so strongly in the effects of sustainability reports on customer attitudes, that they will risk legal action by misreporting their environmental impact or future sustainability plans, in the hopes that they will see a profit increase. It seems that customers (at least some of them) are indeed motivated to consider sustainability when making a purchase. Many companies and top managers (like J.K. Hwang) have recognized this growing trend and are already moving to address it.

According to Merriam-Webster, post consumer waste/material/content is anything that has been used and recycled for reuse in another consumer product (Merriam-Webster). One of the easy, sustainable approaches manufacturers can take is to design a package that is made with post consumer material and can be recycled for packaging or other purposes. The entire “green” movement is really founded on the idea on the “3Rs:” reduce, reuse, recycle. Many companies seek to not only save resources, but save costs by reducing the amount of material used in their packages. Water bottles are an excellent example of this, as companies like Aquafina and Crystal Geyser have reduced
the wall thickness of their water bottles as well as the cap size/weight, saving plastic and money. In Europe, there are collection programs for glass bottles where they are sterilized, refilled and redistributed, saving energy that would be needed to recycle or produce new bottles (Letnesky 2012). In fact, the United States is beginning to pass a threshold for recycling costs. It is now cheaper to make a can from recycled metal than it is to make one from virgin metal (Strom 2012). In other words, recycled content in packaging is bound to become more and more commonplace as manufacturers start to find it cheaper than relying strictly on virgin material. This issue is maintaining quality and appearance of the package or container while incorporating the recycled material.

Currently, Paper and its heavier cousin, paperboard, are the most recycled packaging materials (USPS 2012). It is difficult to reduce the amount of material used in paper and paperboard production without significantly impairing quality. Paper and Paperboard also require treatment for reuse, making recycling the only option to avoid simply disposing of the material in a landfill. Because paperboard is recycled at such a high rate, many paperboard packages are already made with post consumer recycled content (fibers recovered from previously used paperboard and paper). This makes paperboard packaging good candidate for the addition of a “green” label; a label advertising post consumer recycled content can be added to many paperboard packages without having to change the makeup of the packages themselves. In other words, many paperboard packages can already be considered sustainable because they contain recycled material and they are 100% recyclable after the consumer is finished with them. Companies who package their products in paperboard could place a statement or logo of some kind on the face of the package to inform consumers of the relative environmental
friendliness of the package at the point-of-purchase. This is more legal and ethical than “greenwashing” of sustainability reports and it can be done without having to change anything about the package besides the printed image visible to consumers on the shelf.

In short, today’s consumers are not the same as yesterday’s consumers. Today’s supply of raw materials is not the same as yesterday’s supply. The concepts of reusing and recycling are nothing new, but we are now reaching the point where they are not just politically and environmentally relevant, but becoming economically relevant as well. If a manufacturer can cut costs by using more recycled material and gain an advantage over competitors by advertising this cost-cutting strategy, it’s an ideal scenario. The manufacturer has a package that is cheaper to produce and the consumer has an opportunity to buy their conscience and send the message to other manufacturers that sustainability is important. Advertising post consumer recycled material on a paperboard package would influence more consumers to choose that particular product over a competitor’s product and the company will have spent less on the package than if it contained no recycled material. If other companies followed suit, it would be a boon to the environment, as recycled material became a more valuable commodity in its new role as a marketing tool. Literature supports this possible future, but whether consumers are as committed to sustainability as they claim in survey responses is yet to be seen.
Chapter Three

Methodology

This project intended to discover if manufacturers could increase profits by marketing sustainability as a selling point, and gauge consumer interest in sustainability. It can potentially serve as a reference for any company interested in sustainability or in marketing their current sustainability efforts to the public. The question asked in this study was: Is consumer behavior affected by post-consumer content statements/labels advertised on the front of paperboard packages? The sample groups used for this study were restricted to Central and Northern Californians. The sample group for the online survey was made up of Cal Poly students, primarily GrC majors. A longer questionnaire was administered outside retail establishments. It collected random samples of mostly middle-class Californians of various ages.

A questionnaire or long-form survey (Appendix A) was administered randomly (primarily within the GrC department). Participants sat down and filled out this 7-question survey with pen and paper. The survey took between five and ten minutes to complete. The sample population for this questionnaire was not comprised entirely of one age demographic, but it was limited to San Luis Obispo, a predominately Caucasian community between the ages of 18 and 25. Data was organized in a Microsoft Excel spreadsheet. Results from the questions on the survey were compared to one another to find differences between opinions on sustainability and real purchasing habits. The results will be presented in pie charts and compared to current data on consumer attitudes toward sustainability to see if there were any differences between San Luis Obispo residents and previously sampled populations. Specifically, the results will help
determine if advertising recycled material on a paperboard package affects a consumer’s decision to purchase the product in that package.
Chapter 4

Results

The survey (found in Appendix A) was distributed to each participant in person. Questions were designed to gauge consumer commitment to sustainable packaging and demographic differences in responses to various aspects of paperboard packaging and contained products (specifically Cheez-Its and Cheese Nips). For the purposes of this survey, a package was limited to paperboard and designated as “sustainable” if it was composed of 20% recycled paper fibers or “post-consumer content.” It was not considered sustainable if it was comprised solely of virgin paper fibers.

Of the 25 participants, 15 were female and 10 were male. 18 of the 25 respondents were between the ages of 18 and 25, two were between the ages of 25 and 35, and five were over the age of 39.

(Figure 1. Gender Distribution of Sample Group)
In response to question 1, 14 out of 25 respondents selected option 3, a box of Cheez-Its labeled with a “40% reduced fat” seal on the front of the box image. Nine of these 14 respondents were female. Five out of the 25 respondents selected option 4, a box of Cheez-Its with no specific label (what is typically found on shelves today). Four respondents selected option 6, a box of Cheese Nips with a “We’re Green! (20% post consumer content)” seal on the front of the box image. One respondent selected option 5, a box of Cheese Nips with a “40% Reduced Fat” seal on the front of the box image. One respondent selected option 7, a box of Cheez-Its with an “est. 1921” seal on the front of the box image.
In response to question 2, 18 out of 25 respondents expressed a preference for the Cheez-It brand over the Cheese Nip brand product. Six expressed no preference for one brand over the other. One respondent expressed a preference for the Cheese Nip brand over the Cheez-It brand product.

In response to question 3, 12 out of respondents described sustainable use of resources as “somewhat important.” Eight respondents described sustainable use of resources as “very important.” Four respondents described their opinion of sustainable use of resources as “neutral.” One respondent described sustainable use of resources as “not at all important.” None of the respondents described sustainable use of resources as “not that important.”
In response to question 4, 12 out of 25 respondents said they look for recyclable packaging sometimes when shopping for items they buy routinely. Nine respondents said they rarely look for recyclable packaging. Two respondents said they always look for recyclable packaging. Additionally, two respondents said they never look for recyclable packaging.

In response to question 5, respondents ranked various factors affecting their purchasing decisions in order of importance with a ranking of “1” indicating maximum importance and a ranking of “6” indicating minimum importance. One participant did not provide valid data for question 5, so results are counted out of only 24 total respondents. 17 out of 24 respondents ranked “price” as either a “1” or “2.” Five ranked “price” as either a “5” or “6.” Two respondents ranked look of package as either a “1” or “2” while 14 ranked “look of package” either a “5” or “6.” Only two respondents ranked “environmental friendliness” of package as either a “1” or “2” while 17 out of 24
respondents ranked environmental friendliness of package as either a “5” or a “6.” 12 respondents ranked their trust in the product brand as a “1” or a “2,” two respondents ranked brand trust as a “5” and no respondents ranked the category as a “6.” Five respondents ranked convenience as a “1” or “2,” and eight ranked convenience as a “5” or “6.” 10 respondents ranked “perceived quality” as a “1” or “2” while only two respondents ranked “perceived quality” as a “5” or “6.”

(Figure 5. Factors Affecting Consumer Purchases)

In question 6, participants were given a budget that allowed them to purchase only three products if they selected only products packaged using 20% post-consumer content or four products packaged using no post-consumer content. Participants were not forced to choose from only one category or the other, but they found it difficult to purchase even one product using 20% post-consumer content without being forced to purchase only three products to stay within the budget of $10.00. 13 out of respondents said they would purchase at least one product packaged using 20% recycled material when presented with multiple choices between more expensive products packaged using 20% post-consumer
content and less expensive products packaged using no post-consumer content. Eight respondents said they would purchase at least two products packaged using 20% post-consumer content. Only two respondents opted to purchase only products using 20% post-consumer content.
Chapter 5

Conclusion

The results of the survey generally agreed with results from previous studies regarding American markets; price was generally acknowledged as the primary factor affecting purchasing decisions. The primary question that this study hoped to answer was: “Are consumers willing to purchase a product based on the environmental friendliness of its package even if it goes against the consumer’s brand preference or if it has a higher price point than competing products?” Results indicate little (if any) preference for environmental friendliness of package over brand trust, price, or quality. The flaws of this study are a small sample size and potential inaccuracy in self-reporting.

80% of respondents described “sustainable use of resources” as “somewhat important” or “very important.” However, when faced with actual purchasing decisions 71% of respondents cited “price of product” as one of the primary factors (first or second in importance) influencing their decision to purchase it or not. Only 8% of respondents cited “environmental friendliness” as one of the primary factors affecting their purchasing decision. This showed a disconnect between the results of these two questions, which reinforces the 30-point difference between U.S. consumers’ “green” beliefs and actual purchasing habits or actions found by Oglivy Earth in their five-year study (Haymarket Publishing 2012) The discrepancy between how a consumer claims to feel about environmental responsibility and the consumer’s actual buying behavior was reflected in this study.

Data suggested that 72% of research participants expressed a preference for the Cheez-It brand and only 4% of participants expressed a preference for Cheese-Nips. But
16% of respondents selected the box of Cheese Nips that with the “We’re Green! 20% post-consumer content” label in question 1. This suggested that some consumers with no preference for one brand or the other would select a more sustainably packaged product, all other factors being equal. However, all other factors (price, look, shelf placement, etc.) would almost never be equal in a real-world purchasing situation. The majority of respondents in question 1 preferred a product with the “40% reduced fat” label. This implied that perceived health benefits/nutrition facts have the most influence on consumers’ purchasing decisions if price and the look of the package/label(s) are consistent across all product choices.

Question 6 simulated an actual point-of-purchase decision where the post-consumer content (sustainability) of a product is salient and the consumer is on a budget. 54% of respondents claimed they would purchase at least one product packaged with 20% post-consumer content despite the higher price (anywhere from 15%-25% more) of that product compared to another packaged without any post-consumer content, but only 29% were willing to purchase the product with the more sustainable packaging if it meant reducing the number of total products they could buy. Only 8% of respondents said they would be willing to pay the extra couple dollars (out of a ten-dollar budget) to purchase products packaged with the post-consumer content exclusively. These results from question 6 suggest that there are some consumers willing to spend more money for sustainable packaging, but the vast majority are not willing to let the product’s package affect what or how many products they buy. In response to question 7 (the free response), several respondents said that 20% post-consumer content (the amount of recycled material that FS Korea stated could be used without any impact on appearance or quality
of the package) was simply not enough post-consumer content to influence them to buy a product over another.

Based on these results, there were few consumers willing to purchase a product based on the environmental friendliness of its package even if it went against their brand preference or if it has a higher price than competing products. Price, quality, and brand appear to be far more important to consumers than any other factors. Most respondents were not willing to pay an additional 15%-25% for a product packaged with 20% post-consumer content. It was unclear whether price would be as significant if the economy were stronger; it would be interesting to repeat this study under better economic circumstances. This survey was distributed among a small sample size (only 25 participants) but the results coincide with the results of surveys cited in the literature review; consumers will answer affirmatively to questions regarding the importance of the environment, but when other, real-world factors are introduced (price, quality, aesthetics), environment and sustainability become much less important. Based on these results, investing in sustainable packaging at the expense of any other purchasing factor is probably not a profitable decision.
Works Cited


Appendix A

Questionnaire (Long-form Survey)

This is a survey for a Cal Poly Senior Project

Major: Graphic Communication

Your identity will remain anonymous

But please circle your gender: Male / Female and list your Age:_____

Note: For the purpose of this survey, “post-consumer” means “recycled”
1. Assuming these products are all of comparable quality and competitively priced, which one would you purchase? Please circle the number associated with your choice. (More choices found on page 3).
Note: Please do not change your responses to the previous questions based on the following questions.

2. Do you have a strong preference for either of the brands of products presented in the previous questions? If so, please circle which one: CHEEZ-IT / Cheese Nips

3. How important is sustainable use of resources (sustainability) to you? Circle One:
   - Very important
   - Somewhat Important
   - Neutral
   - Not that important
   - Not at all important

4. Do you look for recyclable packages when shopping for products you buy routinely? Circle One:
   - Yes I always look
   - I look sometimes
   - I rarely look
   - No, I don’t ever consider recyclability

5. Rank the order in which the following factors influence your decision to buy a product with “1” being the most likely to influence “6” being the least likely to influence.
   - Price
   - Perceived quality
   - Look of package
   - Brand recognition/trust
   - Environmental friendliness
   - Convenience
14. Financial Question: You have a maximum of $10.00 to spend on products from column 1 and column 2 in the chart below. The products in column 2 are slightly more expensive, but the packages for these products are made with 20% post consumer content. Product categories are shown on the left-hand side of each row. You may pick only one item from any category but you may pick from either column or only one if you wish. **The total cost of the products you select is not to exceed $10.00.**

<table>
<thead>
<tr>
<th></th>
<th>Column 1</th>
<th>Column 2 (20% recycled material)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereal</td>
<td>$2.45</td>
<td>$3.11</td>
</tr>
<tr>
<td>Juice</td>
<td>$2.99</td>
<td>$4.08</td>
</tr>
<tr>
<td>Toothpaste</td>
<td>$1.79</td>
<td>$2.33</td>
</tr>
<tr>
<td>Bar Soap</td>
<td>$2.04</td>
<td>$2.68</td>
</tr>
<tr>
<td>Shampoo</td>
<td>$2.10</td>
<td>$2.89</td>
</tr>
</tbody>
</table>

7. Please use this space to write any thoughts you have on “green” or “sustainable” packaging, and/or your thoughts on this survey.