

Perceived consumer effectiveness: The new tool for building attitude and buying intention towards green products?

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Abstract: The purpose of this report is to determine the extent to which an individual's Perceived Consumer Effectiveness, PCE, can be altered and if this will in turn affect the individual's brand attitude, advertisement attitude and buying intention. The focus of the theory concerned perceived consumer effectiveness and advertising efficiency. Data was collected through an experiment where surveys containing a manipulated article, a piece of green advertisement and questions concerning key topics were used. The results showed that one can alter a consumer's sense of PCE, but not his/her attitudes or behaviours towards the advertisement and product.

Key search words: PCE (Perceived Consumer Effectiveness), environment, green advertising, attitude, behaviour

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1. Introduction

1.1 Background

Over the last decade alone, environmental concerns across the globe have expanded and become a visible part of western society. Polls performed in Europe, East Asia and the United States demonstrated a visible increase in public awareness throughout the 2000s, where during the past year alone 20% of the European Union's and 37% of the United States' groups viewed the threat towards the environment as something of great concern (Eurobanner 2011, Saad 2012, Xinhua News Agency 2008).

Yet the behaviour and enthusiasm of the consumers vary despite the increased awareness and the expansion of industries into greener product alternatives (Chen 2001). Among several western and developing countries, consumer interest and impact on the environment over the past few years has diminished, this being the trend due to the fact that individuals feel discouraged by the greenwashing that companies perform (Terrachoice 2010) and feel that their efforts become worthless after a point without the aid of industries and governments (National Geographic 2010).

1.2 Problem area

So, two strong inhibitors for the more environmentally conscious consumers are the tendency for companies to greenwash, and a lacking sense of PCE or Perceived Consumer Effectiveness (National Geographic 2010).

Greenwashing involves techniques of advertising that give a false or misleading impression, a topic that has been touched upon in many articles and journals with various suggestions on how to improve upon this issue. The tendency for companies to advertise their product as "green" with little or no actual fact behind the statement has lead to a great deal of mistrust for certain ecological products as well as triggering conflicting feelings when the customer is faced with the purchasing choice (Chang 2011). This ambiguity stems from factors such as wanting to support ecological products and contribute to helping the environment, while at the same time fearing the possibility of the product being too expensive or of inferior quality (Chang 2011). Guides concerning how to avoid greenwashing have been published from

various sources (Davis 1991), as over the years misleading and exaggerated advertisement has lead to global-scale scepticism towards green marketing claims (Mohr, Eroglu and Ellen 1998; Chan 2001). Though it has a great impact on buying intention of ecological products, this will not be the focus in this report.

Instead, the focus will lie with PCE, which is a relatively unexplored concept, being introduced in 1974 (Kinnear, Taylor and Ahmed 1974), and referring to the extent to which individuals believe that their actions make a difference in solving a problem (Ellen, Weiner, and Cobb-Walgren 1991). Environmental attitudes and concerns become separable from the PCE for environmental issues, yet they can both act as additional contributions to the prediction of green purchase and other such environmentally conscious behaviours. Concerns that consumers have about these green issues might not lead to pro-environmental behaviours, but individuals with a strong belief that their actions have a positive outcome are more likely to act upon their concern about the environment (Ellen, Weiner, and Cobb-Walgren 1991). Therefore, PCE and such self-efficacy beliefs have the ability to influence behaviours involving green purchases (Yeonshin, Sejung 2005), but the path that leads the consumer from a strengthened perceived consumer effectiveness to buying intention is far from a clear one.

1.3 Purpose

The purpose of the report is to investigate how a changed sense of PCE in a marketing context will affect the evaluation of the marketed product and through this, present further suggestions on how to make green marketing trigger the correct pro-environmental behaviour in consumers. The following question will be the heart and focus of this report:

Is it possible to affect a consumer's PCE and if so, can it be altered so that the attitude and the buyer intention for a green product are affected?

From the findings of this research, a discussion revolving around the results will be conducted and relevant conclusions will be drawn concerning how the key points can be implemented on a practical level and how they can add value in the marketing context of green advertisement.

1.4 Limitations

As many products and styles of marketing are directed towards young adults, the research was conducted on individuals studying on a university level around the ages of 20-35. The survey was divided up into three different forms which all included a green piece of advertisement and an article. The advertisement was the same for all three, while one article had the purpose of increasing the reader's sense of PCE, one was meant to reduce it and one was completely irrelevant to PCE. This limits the results, since only the interpretations of those specific texts and that specific advertisement could be determined. This was however necessary, since having more than three articles and one advertisement might have lead to an overload of data and the presence of numerous unforeseen factors might have skewed the results.

1.5 Intended knowledge contribution

The results from this report will hopefully contribute to the realization and implementation of PCE as a tool for reaching environmentally conscious customers and triggering buying intention through a well-designed, truthful and PCE inducing marketing campaign. Due to the lacking research within the area, this report also has the intention of testing the possible connection of perceived consumer effectiveness to brand and advertisement attitude.

2. Theory

2.1 Introduction

The bulk of theory that creates the spine of the report and analysis involves research concerning PCE and advertising efficiency. The Hierarchy of Effects Model by Robert J Lavidge and Gary A Steiner (1961) concerning marketing communication creates the base of the structure for the theory. The definition and depth of PCE was established mainly through the usage of three articles: Ellen et al. (1991), Yeonshin, Kim and Sejung Marina Chio (2005) and Chang, Chingching (2011), while the advertising aspect of the study was focused down to brand attitude, advertisement attitude and buying intention. The two fields of theory will be linked to the specific topics of the research question, and four different hypotheses will be acknowledged.

2.2 Why consumers buy green

The focus of this report is to understand what motivates consumers to make environmentally conscious purchases and from this information get an understanding of how to promote this sort of behaviour. Previous research lists certain patterns when observing green purchases, often presenting various factors that are either positively or negatively linked to consumers' willingness to buy green. All these motivators and barriers are considered important when evaluating green buying behaviour (Aceti Associates of Arlington 2002):

MOTIVATORS

Perceived Consumer Effectiveness

The more one believes that the efforts of an individual can make a difference in the solution to environmental problems, the greater the likelihood of buying green.

Perceived Knowledge

The greater the perception of one's knowledge about environmental issues is, the more likely one is to act upon them.

Environmental Concern

The general level of a person's environmental concern is connected to the willingness to purchase green products.

BARRIERS

Perceptions of Inferior Product Quality

Research has shown that consumers sometimes believe that a green product does not actually fulfil its primary function to the same extent as a corresponding non-green product, and therefore is perceived to be of an inferior quality.

Scepticism about “Green” Marketing Claims

A variety of polls indicate that people distrust advertising and labelling claims pertaining to the environment. Discouraging factors are created through green marketing overkill, triggering scepticism in the consumer.

Difficulty In Identifying Green Products

People are more likely to follow through on their intention of purchasing environmentally preferable products when the environmentally relevant aspect of the product is more visible.

Price Sensitivity

Despite the strong support for environmental protection, consumers are still very sensitive concerning price when it comes to buying green.

2.2.1 About the consumer

The purpose of this study is to offer some practical implications in a marketing context and therefore, to better implement these, one should elaborate on the type of consumer that is mostly responsive to the kind of tactics that are being proposed in terms of increasing PCE. The environmental concern is proven to be a potentially important indicator of eco-friendly behaviour, as long as the consumer is willing to pay a premium price for green products (Moon, Florkowski, Brückner, and Schonhof, 2002; Chase, 1991; Levin, 1990; Kassanjian, 1971; Coddington, 1993), and engage in socially responsible investments (Cullis, Lewis and Winnett, 1992).

A environmentally concerned consumer has been described as someone “whose values, attitudes, intentions, or behaviours exhibit and reflect a relatively consistent and conscious concern for the environmental consequences related to the purchase, ownership, use or disposal of particular products or services” (Henion and Wilson 1976, p. 282). Based on the data from DDB Needham Life Style Study, some typical characteristics of the typical green consumer were: an opinion leader, a price conscious and careful shopper, with a propensity to actively seek information, talk to other people, not shop on impulse, to be sceptical about advertising, and not necessarily very brand loyal (Shrum, McCarty and Lowrey 1995).

The sample group for the performed experiment consisted solely of Swedish citizens and therefore, one needs to also take into account a few other aspects when determining what type of external and internal factors are at play when the respondents answered the survey. Due to the Swedish government active role in setting energy policies, this both motivates and slightly forces the group to be more conservative in their consumption of anything that has a heavy impact on the environment, such as gasoline, large automobiles, and heavy machinery (Keough 1978; Van Vactor 1978).

2.3 Hierarchy of Effects Model

The Hierarchy of Effects Model was established by Robert J Lavidge and Gary Steiner (1961) and offers guidance in creating the bases for the theory and ultimately the formation of the four hypotheses used in this report. The model shows how marketers can transform the attitude of consumers from being disinterested to being convinced through the usage of six distinct steps. These consist of awareness, knowledge, liking, preference, conviction and purchase (see Figure 1).

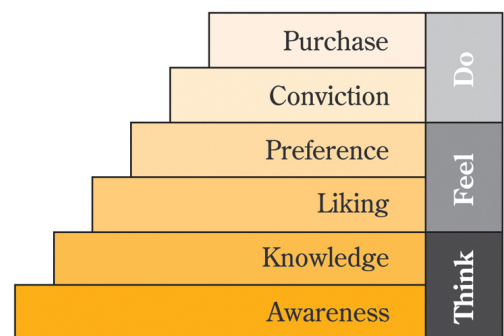


Figure 1: The Hierarchy of Effects Model by Lavidge and Steiner (1961)

As the figure indicates, these steps can in turn be categorized into the three distinct functions.

1. Think: Awareness and knowledge that relate to *information* and *understanding*
2. Feel: Liking and preference that relate to *attitudes* toward the product
3. Do: Conviction and purchase that relate to *behaviour* and *intention*

“Think” creates the base of the model and also the base of the report’s theory, revolving around how one can trigger a sense of perceived consumer effectiveness in an individual through the usage of information and by increasing their awareness and understanding of environmental matters. “Feel” translates into how the consumer interprets the specific company’s campaign and what kind of attitude towards the advertisement and brand this triggers inside the person. Lastly, “Do” becomes the goal of the model and the theory, involving how the company can convince and triggering a buying intention in the consumer. To set the scene for both the model and the theory, the following sections will first describe

what triggers PCE, followed by how PCE might create a buying intention and lastly a longer description concerning how the brand and advertisement attitude might be affected and how this in turn creates a favourable outlook on what the company is offering.

2.4 PCE and its connection to behaviour

The concept of perceived consumer effectiveness was first defined and shaped in the article *Ecologically Concerned Consumers: Who are they* by Kinnear et al. in 1974. This text was devoted to describing how to identify ecologically concerned consumers via numerous variables and PCE became defined as “[...] a measure of the extent to which a respondent believes that an individual consumer can be effective in pollution abatement.” (Kinnear, Taylor and Ahmed 1974, p 21). This set the base for what PCE became known as in researching circles and since then, many have approached it from various angles and combined it with other attitudinal variables, such as concern (Allen 1982; Allen, Calantone and Schewe 1982) and consumption (Webster 1975; Antil 1984) to get a better understanding of environmental consumers.

2.4.1 Triggering PCE

Awareness is the first step in the Hierarchy of Effects Model and is habitually measured through recall and recognition, which involves the recollection of information, and the extent to which the consumer can revoke it from collected memories. The process of storing and recalling information is explained in the information processing theory (Domzal, Hunt and Kernan 1995; Harris, Sturm, Klassen and Bechtold 1986; Kaufman-Scarborough 2001; Tybout, Calder and Sternthal 1981) and argues that when a person is exposed to information, the attention directed towards the object and the comprehension are essential in order for the respondent to remember the message (Wyer 2002).

The greater the consumer’s perceived knowledge and awareness of environmental issues is, the more likely he/she is to act upon it due to an increased understanding of the situation (Aceti Associates of Arlington 2002). Knowledge in itself is the amount of information that is stored in the individual’s memory, which has the ability to affect the way in which the person assesses and interprets the available alternatives (Blackwell, Miniard and Engel, 2001). What this implies is that the more information or knowledge a consumer is presented with, the more his/her opinions about that specific matter will change, up to a specific point where they decide to act upon it. People that have a tendency towards being more collective will be shaped through a group environment, usually with the usage of goals and norms (Mills and

Clark 1982), while also having certain enhanced characteristics, such as obedience, conformity and cooperativeness, when compared to those of a more individualistic mindset (Grimm et al. 1999). These concepts can be applied to perceived consumer effectiveness, since an increase of environmental knowledge and awareness of the effect that one individual can make in the fight for the environment will strengthen PCE.

There will always exist differences between the practical experiences and personal insight of a consumer, and these factors determine the PCE for that person and potentially also how it is triggered (Brown 1979, Thompson 1981). There are individuals who have little or no confidence in their own ability to make a difference, while others feel that their actions create a noticeable change, this being another potential factor in the triggering of PCE. One should also note that perceived consumer effectiveness is situational and may be formed by introducing general or abstract value orientations, one might be able to form personal belief of the individual (Yeoshin and Chio 2005).

These theories formed a base for the formation of the first hypothesis for this report. The general impression that previous research seemed to indicate was that increased information about environmental topics would have an affect on perceived consumer effectiveness. Therefore, the first hypothesis became:

H1: If the respondent is exposed to an article that a) promotes b) discourages individual actions in the fight for the environment, it will have an a) positive b) negative effect on the individual's PCE.

2.4.2 PCE and how it affects green buying intention

Numerous studies have indicated that perceived consumer effectiveness is a strong predictor of various types of green and ecologically conscious behaviours within consumers, stretching from recycling to the use of energy-efficient products (Lee and Holden 1999). Other studies showed that it could be used as a strong predictor of green buying behaviours, which involved purchasing organic goods (Verhoef 2005), green products (Yeoshin and Choi 2005) and sustainable products (Vermeir and Verbeke 2006). PCE therefore seems to have the ability to convince and potentially trigger a purchase intention in the consumer, thus setting the base for the “do” aspect of the Hierarchy of Effects Model.

Social dilemma theory can also be used to predict how PCE will influence these types of

green behaviours, since the problem of saving the environment is classified as a social dilemma, implying that it is a situation where the collective good can be achieved if mostly all the community members sacrifice (Wiener and Doescher 1991). PCE acted as significant predictor for three of the six behavioural measures—purchase, recycling, and contribution to environmental groups, and yet, this predicted that a greater sense of perceived effectiveness was associated with greater likelihood of buying intention.

Despite this, not all research involving PCE has showed as clear a connection towards buying behaviours. Instead, numerous theories stretching from the behavioural control theory (Rothbaum, Weisz and Snyder 1982), to the theory of reasoned action (Gill, Crosby and Taylor 1986) have resulted in moderately unified outlooks on PCE's connection to behaviour, namely "If an individual believes that an environmental problem can be solved by a specific activity (such as recycling aluminium cans), then this belief should strongly influence the individual's willingness to engage in that specific activity but not his or her willingness to engage in other pro-environmental actions." (Ellen, Wiener and Cobb-Walgren 1991, p. 103). Other reports have expanded this idea by adding that the person's willingness to act on green attitudes is influenced by aspects such as differences in the individual, the circumstances of the situation and environmental issue salience (Dunlap 1975; Mazmanian and Sabatier 1981; Rothbaum, Weisz and Snyder 1982). Additionally, consumers will receive different impressions on the effectiveness of a green product's ability to reduce the impact on the environment depending on previous opinions (Chang 2011), which implies that a person might have predefined views on how green the advertised product actually is. If this opinion is negative, they will therefore be less inclined to purchase it.

According to Guagnano, Stern and Dietz (1995), one can determine the environmental behaviour of a consumer by determining their attitude and under what conditions the individual comes in contact with the product. This theory has been dubbed the A-B-C Theory (attitude-behaviour-condition) and has been used in several scientific articles to explain environmental behaviours. The main implications of this are that acting upon or altering green behaviour will be dependent on contextual factors involving aspects such as

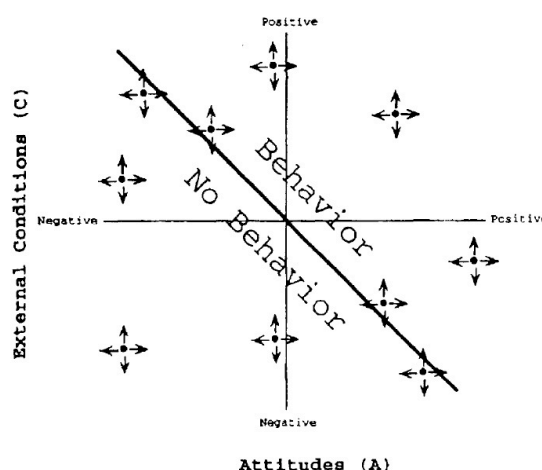


Figure 2: The A-B-C Theory by Guagnano, Stern and Dietz (1995)

inconvenience and expense. The degree that the behaviour can be changed will from the personal domain depend on education or information, which can be affected by the strength of the contextual forces (Stern 1999). This can be seen in Figure 2, where there is a distinct line showing where behaviour can be triggered or altered at different stages of attitude and conditions. Yet even here, the main point explains how it will be the consumer's personal constraints and capabilities that will determine how likely that individual is to practice a particular green behaviour (Stern 1999).

The fact that the opinions on the connection between PCE and green buying intention are far from unified creates a strong point of interest, since this connection is one of the more vital ones for marketers. Due to these fluctuating viewpoints, there is a risk that the experiment will not yield a clear answer and yet, due to its importance, this connection needs to be tested. From a logical standpoint, it seems very plausible that if the consumer's PCE is strengthened through a piece of environmental information and Hypothesis 1 is supported, they will have a stronger incentive to purchase something green. Through this decision, the angling of the second hypothesis became:

H2: If the respondent is exposed to an article that a) promotes b) discourages individual actions in the fight for the environment, it will have an a) positive b) negative effect on the individual's buying intention for green products.

2.5 Advertising Effectiveness

Advertisement and brand attitudes finish of the Hierarchy of Effects Model by covering the “feel” aspects of the model, which involve the preference and liking that can be related to the attitudes and linking it with behaviour. Recognizing the nature of the process through which marketing communications influence consumer behaviour is an area of long-standing inquiry within the marketing research field. Advertising effects are often long-term with their main functions being to help generate sales (Lavidge and Steiner 1961). Yet, due to the limited time span of the planned experiments for this report, the analysis will be unable to fully take the longer term effects into account except through the implementation of well-established methods that use short-run occurrences as a predictor of what may come. Many current research techniques for short-term advertisement effectiveness consist of attitudinal measures, recall/recognition (Rossiter and Percy 1996.) and playback (Lipstein and Neelankavil, 1982). These techniques provide a deeper understanding of attitudes and the influence these have on behaviour (Fishbein and Ajzen, 1975) and this, in turn, has led to further research on the

connections among brand beliefs, brand attitudes and purchase intention (Chow, Rose, and Clarke, 1992).

Historically relevant studies, including the Elaboration Likelihood Model (ELM) (Petty and Cacioppo 1981,1986) and the heuristic and systematic information-processing model by Chaiken (1980) advocate the complementary theory that attitudes are influenced either by message-related information processing, or by peripheral cues in the message environment. From an advertisement context, these translate to product/brand-related issues and advertisement-execution-related issues.

The Advertising Response Model (ARM) takes these findings as well as past research into consideration, and presents a conceptual model that can be seen in Figure 3. If an advertisement manages to gain attention, processing follows along two routes: central and peripheral (Petty and Cacioppo 1981). Central processing focuses on product- and/or brand-related information and leads directly to brand attitude, which in turn influences buying intention. Peripheral processing, on the other hand, focuses on issues related to the advertisement, and translates to “ad attitude” and “ad liking” which have the ability to influence brand attitudes. The distinction between peripheral and central routes is useful when evaluating advertising performance, since it enables identification of distinct areas of strengths and weaknesses connected to product/brand and creatively executed aspects.

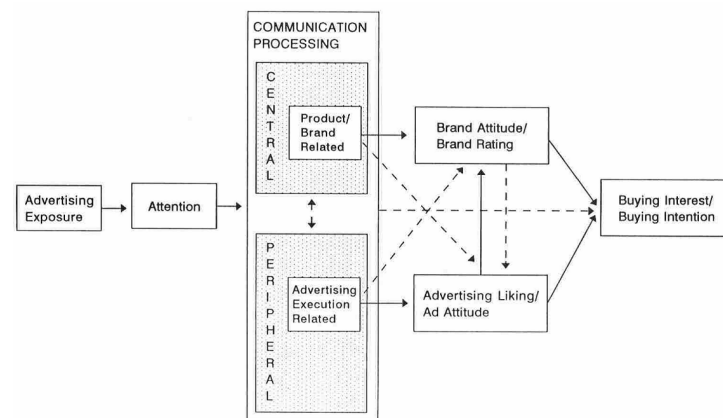


Figure 3: The Advertising Response Model by Petty and Cacioppo (1981)

2.5.1 Advertisement attitude

Attitude toward the advertisement is an affective construct that represents a consumer’s feelings of favourability or unfavourability towards it, and has in various studies been suggested to be a causal variable in the process in which advertising poses an impact on brand attitudes and purchasing intentions (MacKenzie, Lutz and Belch 1986). Advertisement attitude is affected by elements that influence the appearance of the advertisement and range from the contents of the headline, to the copy (information on product attributes), to the creative platform (i.e. use of humoristic elements), to images, pictures and other aesthetic elements (Baker 1993; Lutz 1988). Recent findings also suggest that one of the factors that

influences how much attention and liking will be expressed towards an advertisement is determined by the attitude that the individual expresses towards advertising in general (Mehta and Purvis 1995). These discoveries are however not to downplay the role of the creative aspects of an advertisement in the view of the tremendous amounts of information and the overload of commercial campaigns that the consumer is exposed to every single day. All the listed elements of an advertisement play a crucial role in drawing attention to the specific campaign through all the clutter.

The ARM model indicates that advertisement attitudes occur through peripheral processes and focuses on issues related to the advertisement, which are translated into “ad attitude” and “ad liking” where both have the ability to influence brand attitudes and buying intention. This enhances the notion that a well-formulated advertisement can play a crucial role in enhancing the success of a business even further. In order to increase ad liking for an advertised green product, strategies suggest that the one should pay a great deal of attention to the presentation of the environmental claims, since green advertising effectiveness is highly dependent on claim formulation (Chang 2011). An additional aspect of this is that through the phrasing of these claims, one can not only influence the attitudes towards the advertisement itself, but also the attitude towards the brand. Manrai et al. (1997) propose that green claims differ in strength; classifying 5%, 15%, and 69% pollution reduction claims as weak-, moderate-, and high-strength claims, respectively. Research suggests that green advertisement effectiveness varies depending on claim types, so for instance, vague claims result in less favourable advertisement and brand attitudes than specific claims do (Davis 1993).

Consumers that experience an internal locus of control, which implies having a sense of being able to impact the environment around them and is conceptually similar to high PCE, have a stronger tendency to exhibit environmental behaviours and attitudes (Tucker 1978; Henion 1976). This implies that a consumer will experience positive attitude towards an advertisement when exposed to a strengthened sense of PCE, if other factors such as scepticism, vagueness or previously bad experiences with the product do not come into play. If the customer does experience any of the potential missteps that a company might take when designing the advertisement, this link is far less likely to occur.

Advertisement attitude plays a vital role in the steps between increased knowledge and buying intention and it is for this reason, in combination with the fact that the relationship between

PCE and advertisement attitude is relatively unexplored, that the third hypothesis of this report became:

H3: If the respondent is exposed to an article that a) promotes b) discourages individual actions in the fight for the environment, it will have a a) positive b) negative effect on the individual's advertisement attitude.

2.5.2 Brand Attitude

Brand attitude represents a consumer's feelings of likeability or lack thereof towards a brand and has in various studies suggested to be a causal variable in the process during which the advertising has an impact on purchasing intentions (MacKenzie, Lutz and Belch 1986).

Naturally, the actions and reputation of a company within various areas, including environmentalism, will colour their efforts in a positive or negative light in the eyes of the consumer. Effort that signal a sense of seriousness and honesty from the company will reflect positively towards the brand, which in turn triggers a sense of persuasion and credibility within the consumer (Haas 1981). Yet this task is far from easy, since even a single noticeable misstep for one product can lead to a loss of credibility of the claims presented by the brand's entire assortment (Davis 1993).

Strategies for environmental advertising suggest that in order to increase brand liking for an advertised green product, it is important that the consumer perceives that the promoted product has real environmental benefits (Davis 1993). Attributes that can immediately be recognized as meaningful in preservation of the environment are therefore more likely to be positively received, while a manufacturer who violates the requirements placed upon them through the consumers expectations of what environmental campaigns should contain, may generate negativity towards the company.

Positive attitudes towards the brand and the advertised product are triggered if the consumer perceives the environmental claims as useful, specific, informative and real. Additionally, there is a larger chance for the consumer to harvest positive attitudes and participate in green behaviours if he/she is reminded of the intrinsic rewards that occur when the person partakes in green actions, since "psychic rewards" can act as powerful incentives (Granzin and Olsen 1991). These sort of messages are often phrased to show that the individual is making a difference, such as "you should feel good about the good you are doing" and therefore, these

psychic rewards have the makings of being PCE inducing. Since these rewards create positive attitudes towards the brand, a sense of perceived consumer effectiveness might do the same.

Therefore, if the consumer's PCE is strengthened or weakened through a piece of environmental information, proving Hypothesis 1 accurate, the theory presented above suggests that this will have an impact on consumer brand attitude. Consequently, the formation of the last hypothesis for this report became:

H4: If the respondent is exposed to an article that a) promotes b) discourages individual actions in the fight for the environment, it will have a a) positive b) negative effect on the individual's brand attitude.

3. Methodology

3.1 Research Design and Scientific Approach

The main part of the research was performed using a deductive scientific approach in order to generate the hypotheses that were later empirically tested by means of a survey. The experimental approach was the most fitting approach for the research, partly after deliberation with the tutor responsible for overlooking this report, but also due to the fact that the research was clearly rooted in a classical cause and effect relationship (Christensen, Engdahl, Gräas and Haglund 2010). The experiment was realized through a medium sized group laboratory experiment, where three different surveys, completely identical apart from one aspect, were distributed to one major research group, and later divided among additionally smaller groups until the desired amount of replies was reached.

Yet, prior to the distribution of the main survey, a stripped version was handed out as a pre-study, to test the manipulation effect by verifying the incongruence between the participants' reactions and the version of the article they were given. After this had been stated, the main quantitative experiment was then conducted on students, who after exposure to one of three surveys were to answer questions on environmental and green buying topics. The experiment provided the necessary data (n=152) to empirically review the hypotheses.

3.2 Overall Survey Formation

The finished design of the survey consisted of a full spread of items composed by three areas: 1) an article, 2) an advertisement of Ariel's green washing detergent and 3) additional fillers surrounding the previously mentioned to give the survey a credible look.

The three surveys were identical except for the article, which featured a positive, negative or neutral standpoint on to what degree an individual can make a contribution in preserving the environment. The articles were presented as though they had been published in The New York Times and had the headlines:

1. *The continuously expanding trend of green thinking – consumers matter*
2. *The continuously expanding trend of green thinking – consumers don't matter*
3. *Lost phone? There's an 89% chance somebody tried to access data*

Article 1 and 2 had opposite standpoints on PCE, where Article 1 claimed that individual consumers have a very big impact on the environment while Article 2 claimed that individuals have a minimal impact on the environment. Article 3 had no connection to environmental issues whatsoever and was used as a benchmark for the other two, to assess how individuals on average felt about the presented topics addressed through the survey's questions. By including these seemingly scientific articles addressing the people's impact on the environment in the survey, the point of interest revolved around how these would in turn influence the respondents thoughts concerning if their actions de facto made a difference in solving environmental problems. This aspect was therefore made a determinant of the PCE of the consumer, which was later tested through the use of the questionnaire. The structure and formulation of the questions were based on a 10-point scale as well as established and commonly used methods of determining customer satisfaction, PCE and other important factors (Yang, Smith 2009; Fishbein, Ajzen 1975; Smith, Chen, Yang 2008; Ellen, Wiener, Walgren 1991). The questions were divided up into three categories:

1. Questions with a focus on PCE
2. Questions concerning the attitude towards the green Ariel advertisement
3. Common questions on environmental concerns and attitudes towards green products in general together with buying behaviour

Through this setup, a division between the questions on prior-to-survey standpoint (general concerns and historical buying behaviour) and those concerning PCE became prominent.

3.3 Test study

Prior to the experiment, Article 1 and 2 were tested on a small sample (n=30) in order to determine whether the manipulated articles had fulfilled their purpose and the PCE aspect of the articles came through in the answers. The results showed that the answers given had been successfully influenced by the respective articles, which implied that the texts could be left unchanged for the main study. The survey conducted was from a methodological point of view very similar to the pre-study version, apart from the additions on the enclosed spread now containing more than just an article. Furthermore, a third version of the article, the neutral Article 3, was enclosed. The goal was to have approximately the same amount of responses for each article.

3.4 Main study

3.4.1 Data collection

The primary data stemmed from the collected surveys, while the secondary data originated from online articles, literature from the Stockholm School of Economics Library, books, newspapers, media and the Internet. The articles were found using databases such as Google Scholar and Stockholm School of Economics Library, where some of the keywords used included: PCE, green thinking and green marketing.

The survey was handed out at a lecture that took place at Stockholm University to 200 students upon which 132 answered fully. An additional 20 surveys were handed out to students at Stockholm School of Economics, so that a total of 166 surveys were made use of. The surveys for articles 1, 2 and 3 amounted to 55, 47 and 50 answers respectively.

3.4.2 Scale and measurement tools

The questionnaire was composed by 11 questions, whereof 6 had corresponding sub questions. A bipolar 10-point Likert-type scale was used where the respondents were to specify their level of agreement or disagreement on a symmetric agree-disagree scale for a series of statements. Furthermore, a structured data collection was mainly used, where the majority of the questions were scale measurements, with the occasional case of a multiple choice (Malhotra 2010). Pursuant to the recommendation of Malhotra the (1) represented low values (such as disagree or improbable) and was positioned on the left side of the scale, whereas (10) represented high values (such as agree or probable) and was placed on the right side of the scale.

The use of an even-point scale is sometimes questioned due to the absence of a neutral option, and is likewise referred to as a “forced choice” method. However, the neutral option can be viewed as an easy option to choose when the respondent is unsure of its’ standpoint, and so whether it is a true neutral option is questionable. Furthermore, the otherwise frequently used 5- or 7- point scales may produce slightly higher mean scores according to recent empirical studies (Dawes, John 2008) compared to those stemming from a 10-point scale. By using the 10-point scale there was an advantage of discovering even the smallest deviations between the respondents.

Accordingly to Christensen's commendations, the questions directly linked to the impressions of the advertisement were placed in the beginning of the survey, whereas questions irrespective of the article and advertisement were placed in the end (Christensen, Engdahl, Gräas and Haglund 2010).

3.4.3 Shaping of the survey

In the elaboration of the survey, commonly accepted terms and phrases were used, and confirmed through a meeting with professor Magnus Söderlund in order to increase the validity, comparability and reliability of the study. Questions were tailored to the specific nature and goal of the report, with the purpose of gaining as much information as possible that could be directly linked to the thesis question.

The questionnaire was divided into 5 parts with the intention of measuring the following volatile variables: (i) Attitude towards the advertisement, (ii) Attitude towards the brand, (iii) Purchasing intention, (iv) General concerns about the environment and thoughts on green products, and (v) Perceived Customer Effectiveness, PCE.

(i) Attitude towards the advertisement: In order to measure the attitude towards the advertisement three bipolars were used: *"Unlikable/Likable"*, *"Bad/Good"* and *"Unfavourable/Favourable"* (Söderlund 2001). Additional questions about the overall impression of the advertisement were added on a symmetric agree-disagree scale for a series of statements, e.g. *"the advertisement catches my attention"*, *"the advertisement is interesting"* and *"the advertisement message is memorable"*. In order to grasp the highest possible reliability, statistic scholars frequently promote the usage of synonymous parameters to measure one dimension; i.e. to measure the level of likeability, one should evaluate the level of good, favourable and likeability (Richins 1997).

(ii) Attitude towards the brand: Five bipolar questions were used to determine the respondents' attitude towards the brand, asking the individual to agree or disagree with the presented words. The first three asked the individuals to rate the words *"Bad/Good"*, *"Unlikeable/Likeable"* and *"Unfavourable/Favourable"* to give an understanding of how positive they were towards the brand. The last two questions concerned *"Lacking quality/Superior quality"* and *"Not useful/Useful"*, and were used to give an understanding of the customers' general attitude towards the reliability of the brand and its green product.

(iii) Purchasing intention: The purchasing intention was measured by asking the respondent to grade the probability of the events: “*try out the advertised product*”, “*purchase the advertised product*”, and “*pay a higher price for this product*”. The questions were measured on a 10-point scale, stretching from “Improbable” at 1 and “Probable” at 10. Through the meeting with Magnus Söderlund, it was determined that it is favourable, in addition to an explicit buyer intention question, to add a more vague questions of the sort “*would you pay a higher price for this product?*” since it is not too invasive but is still a strong indicator of purchasing intention.

Categories (i) – (iii) were all connected to the enclosed advertisement of Ariel, while the remaining part of the questionnaire was devoted to the personal beliefs and the impact of the enclosed article on the PCE.

(iv) General concerns about the environment and thoughts on green products: This section was denoted as “Questions about you”, and had the purpose of confirming the primary level of green thinking within the respondents, independent of the advertisement and the article. The questions were on three topics: concern about the environment, general opinions about green products and actual efforts the respondents were making in the fight for the environment. Their purpose was neither analytical nor to be used to answer the hypotheses, but instead to give a more fundamental understanding of how the respondents felt about green products in general.

(v) Perceived Customer Effectiveness: Questions concerning the PCE were aimed at capturing the actual impact that the respective articles had on the respondents. They were phrased as “*There is not much any one individual can do about the environment*”, “*I can protect the environment by buying products that are friendly to the environment*” and “*I feel as an individual capable of helping solve the environmental problems*”. All three questions have formerly been used in the research on PCE, and were found very useful for the research question. In addition, the questions were designed using both positive and negative statements in order to avoid an acquiescence bias (Moss 2008).

Since the focal point of the experiment was to determine whether perceived consumer effectiveness was dependent on which article the respondent was exposed to, it was necessary to determine whether the individual had in fact read the text. This was accomplished by

including the terminal question "*How thoroughly did you read the article*"? The entire questionnaire can be read in the appendix.

3.5 Reliability and validity

The quality of the research is determined through two variables: reliability and validity. Reliability examines whether the results of the study are repeatable and that the exact same results can be achieved using several different methods of measurements, while validity investigates the relevance of the measurements to the actual intention, and is divided into internal validity and external validity (Söderlund 2005).

Reliability: A secure way to measure reliability in an experiment is by applying approved measurements that have formerly been used in similar studies, and by using multiple questions for the same variable (Bryman and Bell 2005). Through generally approved measurements, synonymous questions and the usage of an above 0.7 Cronbach's Alpha to verify the internal consistency, a high reliability was accomplished in this report. External reliability, which refers to the degree to which a study can be replicated, was viewed as important for this study and measures were taken to ensure that all findings were well presented and could therefore provide future research application.

Validity: Validity is described by Malhotra as a way to ensure that changes in the dependent variable are de facto caused by the independent variable, and through this ensure that there is a causal relationship between them (Malhotra 2010). Since identical setups were used for the questionnaire, except for the manipulated independent variables in the shape of three different articles, the validity claims are high with regards to the intended measurement of PCE. Concerning the green advertisement attitude, there are reasons to grade the validity somewhat lower, since a well-known brand may cause skewed results due to prior experiences of the brand. However, through the choice of a low involvement product and thereby a lower dedication to the brand, the validity was probably not as low as it could have been.

As mentioned earlier, the question "*How thoroughly did you read the article*?" was enclosed, in order to ensure that the respondents had taken part of the independent variable. Those surveys with a low grading on the thoroughness of the reading (< 4 on a 10-point scale) were considered defective and were therefore dismissed from the analysis.

Another aspect that affected the validity of the study was the fact that the respondents had different ranges of prior environmental concerns. People with a higher environmental concern

tended to have a greater PCE, which meant that the impact of the enclosed article might have been overshadowed by previous opinions. Deeply engaged environmentalists were therefore less likely to be affected by an article stating “consumers don’t matter” than a less well-grounded respondent.

Though it was a conscious choice to have the respondents only be university students, this led to the sample group not being completely random. The sample consisted mainly of young adults at a higher educational level and since the universities were situated in Stockholm, the answers are not representative for the entire Swedish population. Unfortunately, a lack of randomness can easily cause the whole method to be questioned for authenticity (Malhotra 2010), but a limitation needed to be set. Additionally, Lynch (1982) has through his studies on research methods provided stated that homogeneous samples augment the chance of finding a theory false. Furthermore, it became important to create a fairly even distribution between genders, as gender is a factor that can sometimes colour the respondent’s answer. Participation was non-uniform, and skewed towards female participants, with 93 female respondents and 59 male, which in turn might have affected the validity.

4. Results

4.1 Means of comparisons

With the help of the angled content of the articles, the creation of the three comparison groups occurred. These were dubbed the positive group, who were told that an individual could make a difference in the fight for the environment, the negative group, who were told the exact opposite, and the neutral group, who were given a complete different article that did not concern the environment at all.

The original intention was to use the neutral group as a benchmark, seeing as the article had not expressed any opinions towards an individual's ability to make a difference in the fight for the environment. The group, however, yielded some unexpected results concerning the key questions. The mean values created by these respondents were not in between the other two groups' but instead either the highest or the lowest depending on the question. Some answers were so extreme that they could not be theoretically or logically explained and therefore, so as not to risk the analysis of the hypothesis, the neutral group was excluded from the main analysis. This decision was also supported by the fact that the neutral article had been quite drastically different in the shape and content when compared to the other two and therefore did not have the same controlled environment as the positive and negative articles, which looked almost identical except for the key message. Therefore, the performed analysis occurred between the positive and negative groups.

4.1.1 Variables and values used

For the performed tests, the articles were viewed as the independent variables and therefore, the groups that were created as a result of these became the factor, while PCE, buying intention, advertisement attitude and brand attitude became the dependent variables. A significance level of 5% was used to assess the differences between the means of the groups, and when any sub questions were merged, a Cronbach's Alpha of 0.7 was implemented.

4.2 Assessing the hypothesis

To prove or disprove the established hypotheses, the means of the different groups were compared using a one-way ANOVA. The means that were compared and were vital for the

analysis of the respective hypothesis are presented under the section explaining that particular hypothesis.

4.2.1 Hypothesis 1: content of the articles' effect on PCE

There were three questions concerning PCE in the survey, each of which showed a significant difference between the means of the positive and negative groups. The relevant values used to determine the status of the hypothesis have been presented in Table 1.

Questions:	p-value	Group 1 M, Positive	Group 2 M, Negative
<i>There is not much any one individual can do about the environment</i> Disagree (1) Agree (10)	0.002	2.71	4.43
<i>I can protect the environment by buying products that are friendly to the environment, False (1) True (10)</i>	0.002	8.27	6.79
<i>I feel as an individual capable of helping solve the environmental problems, False (1) True (10)</i>	0.030	6.44	5.15

Table 1: The compared means of the positive and negative groups for the PCE-related questions

The resulting values indicated that there was always a significant difference between the two groups, where the positive group was always angled in the direction of a higher PCE, having lower values for question 1 and higher for 2 and 3. This indicates that the group that was exposed to information stating the power of an individual's actions had a stronger sense of PCE while the group presented with a negative view were more pessimistic. Therefore, "H1: *If the respondent is exposed to an article that a) promotes b) discourages individual actions in the fight for the environment, it will have a a) positive b) negative effect on the individual's PCE*" was supported.

4.2.2 Hypothesis 2: content of the articles' effect on Buying Intention

Buying Intention was one of the variables that had the potential for yielding one of numerous results, since researchers have varying views on how the PCE will affect buying intention. When analyzing the data, the first three sub-questions were clustered together to create the variable that was dubbed Buying Intention, with a Cronbach's Alpha of 0.926. The relevant means for the analysis can be observed in Table 2.

<i>Variables:</i>	p-value	Group 1 M, Positive	Group 2 M, Negative
<i>Buying Intention</i> Improbable (1) Probable (10)	0.758	4.82	4.47
<i>What is the probability that you would recommend this product to a friend?</i> Improbable (1) Probable (10)	0.774	3.84	3.49

Table 2: The compared means of the positive and negative groups for the buying intention questions

The resulting values indicated no significance between the groups, which showed that neither a promoted nor a discouraged sense of PCE had any significant effect on buying intention. Therefore, “H2: *If the respondent is exposed to an article that a) promotes b) discourages individual actions in the fight for the environment, it will have a a) positive b) negative effect on the individual’s buying intention for green products*” was not supported.

4.2.3 Hypothesis 3: content of the articles’ effect on Advertisement Attitude

Advertisement attitude was tested using two main questions that contained several sub-questions that concerned what kind response the piece of advertisement triggered in the individual and what the overall impression of it was. The sub questions concerning the overall favourability towards the advertisement were merged into one variable with a Cronbach’s Alpha of 0.903 and named Advertisement Emotion, while a few of the sub questions concerning the response that advertisement triggered in the individuals were merged with an Alpha of 0.722 and dubbed Advertisement Thoughts. The important values and the significance levels can be observed in Table 3.

<i>Variables:</i>	p-value	Pop 1 M, Positive	Pop 2 M, Negative
<i>Advertisement Thought</i> Disagree (1) Agree (10)	0.556	6.77	6.34
<i>The advertisement claims are easy to understand</i> Disagree (1) Agree (10)	0.264	8.36	7.64
<i>The advertisement makes me want to find more information about the brand,</i> Disagree (1) Agree (10)	0.881	3.44	3.66
<i>Advertisement Emotion</i> Negative answer (1) Positive answer (10)	0.807	7.07	6.82

Table 3: The compared means of the positive and negative groups for the ad attitude questions

For all but one question, the positive group ended up having the highest mean, but at the same time, the differences were too small to be classified as significant. Therefore, “*H3: If the respondent is exposed to an article that a) promotes b) discourages individual actions in the fight for the environment, it will have a a) positive b) negative effect on the individual’s advertisement attitude*” was not supported.

4.2.4 Hypothesis 4: content of the articles’ effect on Brand Attitude

The Brand Attitude was tested using one question that asked the respondent to rate various words used to describe the presented brand. These included the words *Bad-Good*, *Unlikeable-Likeable*, *Unfavourable-Favourable*, *Lacking quality-Superior quality*, and *Not useful-Useful* and were graded on a scale from 1 to 10. The first three were merged into the variable Brand Emotion with a Cronbach’s Alpha of 0.918 and the resulting means and significance levels between the positive and negative group can be read in Table 4.

<i>Variable:</i>	p-value	Pop 1 M, Positive	Pop 2 M, Negative
<i>Brand Emotion</i> Negative answer (1) Positive answer (10)	0.804	7.04	6.82
<i>My overall impression of the brand:</i> Lacking quality (1) Superior quality (10)	0.399	7.42	6.98
<i>My overall impression of the brand:</i> Not useful (1) Useful (10)	0.476	8.05	7.62

Table 4: The compared means of the positive and negative groups for the brand attitude questions

Despite the spectrum of words used to describe the brand, not one single version yielded a significant difference between the always-higher positive group and the negative group. Through these results, “*H4: If the respondent is exposed to an article that a) promotes b) discourages individual actions in the fight for the environment, it will have a a) positive b) negative effect on the individual’s brand attitude*” was also disproved.

4.3 Additional analysis of the neutral group

Due to all the rejected hypotheses, it is worth at least mentioning the general results that the neutral group produced. For the PCE-related questions, the group seemed set on expressing the most positively extreme opinions, having the lowest values for the first question and the highest for the other two. For the rest of the survey’s questions, including those related to the advertisement attitude, brand attitude and buying intention, the answers were always significantly lower than the positive group and numerous times also significantly lower than the negative group.

Additionally, the neutral group usually had the most extreme green opinions, always favouring a more positive outlook towards green products and environmental endeavours in general. They expressed themselves as deeply concerned about the environment and claimed to often purchase green products. The other two groups had in comparison less extreme opinions, and never showed any significant difference between the positive group’s slightly higher values and the negative groups more pessimistic means. Speculations concerning these details will be brought up in the Discussion section of this report.

5. Discussion

5.1 General Conclusions

Previous research has touched upon perceived consumer effectiveness and has often connected the concept with other variables, such as environmental concern and buying intention. Yet, the connection that PCE poses towards brand and advertisement attitude is relatively unexplored, and since these variables can also trigger purchase, it became a point of interest to determine if PCE had any effect on attitude. The purpose of the report therefore became to determine the extent that one could alter a consumer's sense of PCE, attitude and buying intention of an environmentally angled product. The goal was set in stone in the form of the presented research question:

Is it possible to affect a consumer's PCE and if so, can it be altered so that the attitude and the buyer intention for a green product are affected?

The depth of this study was achieved through the testing of four distinct hypotheses, each angled towards a different part of the question, checking to see exactly what the designed articles for the performed experiment did and did not have an effect on. Through the analysis of the resulting data and usage of various theories, three out of the four hypotheses ended up being not supported and conclusions could be drawn.

Perceived consumer effectiveness was the defined base of everything and the only hypothesis that ended up being supported concerned exactly this topic, showing that consumers' sense of PCE can be altered and affected based on information presented from a seemingly reliable source. Yet the other hypotheses showed no significant difference between the positively and negatively induced PCE groups, thus proving that while one have the ability to affect the perceived consumer effectiveness of an individual, the attitude towards an advertisement and brand, as well as the buying intention for that specific product, cannot be altered in the same fashion. Therefore, the thesis question has a distinct yes for the first part that concerns PCE, but the later pieces concerning attitude and buying intention get a no for this specific experiment. The reasons behind these results will be discussed further in the pages that follow.

5.2 Discussion of results

5.2.1 Results of Hypothesis 1: Perceived consumer effectiveness

After having compared the means of the groups, “*H1: If the respondent is exposed to an article that a) promotes b) discourages individual actions in the fight for the environment, it will have an a) positive b) negative effect on the individual’s PCE*” was supported.

The only hypothesis that fulfilled the pre-set expectations and was supported was the one that concerned the potential ability to affect a consumer’s PCE through the usage of an informative text. According to the theories that were used as the basis of the hypothesis, the previous experiences and knowledge of consumers could contribute to how susceptible they were towards attempts to trigger PCE. Yet, the experiment showed that even with the usage of a simple and informative article, the respondents’ sense of PCE seemed to be significantly affected regardless of previous encounters.

The final positioning of their attitudes depended on if the content of the article that they had read, showing that a promoted or discouraged sense of an individual’s contribution in the fight for the environment would either strengthen or weaken their PCE. This indicated that an increase in the respondents’ perceived knowledge played its part in affecting the sense of PCE. Through the rejection of the other hypotheses, it became clear that while increased knowledge could potentially alter a consumer’s attitude towards perceived consumer effectiveness, it did not have as strong an effect on other attitudes and behaviours.

One last explanation as to why this particular area of the study yielded such positive results could be the way the article was phrased. Through the usage of words like “the group” and “families” when describing what individuals could or could not accomplish, the article reached out to those respondents that had a more collective tendency and preferred to follow goals and norms along with a larger group, while at the same time the articles involved the more independent people through the word “individual”. It might seem peculiar that such small details could have accomplished anything, but it has become an established fact that word usage and specific phrases can yield stronger or weaker results (Söderlund 2012). The fact that the article was presented in a format that made it seem like it had been published in the New York Times might have also affected how reliable the consumer found the source. Marketers therefore need to consider how they want to present the information that might trigger PCE, since a more reliable source might yield a more positive response.

5.2.2 Results of Hypothesis 2: Buying intention

Through the analysis of the data, “H2: *If the respondent is exposed to an article that a) promotes b) discourages individual actions in the fight for the environment, it will have a a) positive b) negative effect on the individual’s buying intention for green products*” was not supported.

The analysis of the data showed that while the PCE promoted group always had the highest means, there was no significant difference between the group and the negatively induced group. These results came as quite a surprise, since a logical connection for many is that if an individual feels that he or she can make a difference in the fight for the environment, it should trigger a buying intention for green products.

Yet, as theory has pointed out over the years, the connection between PCE and enhanced buying intention is not as straightforward as one might believe. As was introduced in the theory section of this report, many have pointed out that even if the individual is exposed to the concept that a specific green activity will make a difference, this will only influence how willing the person is to engage in that activity and not in other green actions. For this particular experiment, the articles were kept quite broad and concerned more general notions of what an individual could do in the fight for the environment while at the same time, the advertisement was specific in comparison, concerning Ariel washing detergent and encouraging consumers to turn the temperature down to 30 degrees when washing their clothes with the marketed product. This could definitely have been a contributing factor to the unexpected results of the performed experiment.

An additional explanation to why there was no triggered effect on the purchase intention as a result of the article that promoted PCE, was that consumers are often not ready to base product purchase decision primarily or exclusively on the basis of the environmental attribute (Carson, 1991; Davis, 1993). Even if a detergent does in fact impose a positive effect on the environment, consumers must first establish whether the detergent will clean their clothes well in order to consider buying it. Since the copy of the advertisement used for this experiment did not contain any statements that claimed or verified that the product would, despite its green status, still perform at least as well as non-environmental alternatives, this feeling might have been invoked and had an influence on the respondents’ answers.

The attitude-behaviour-context model (Guagnano, Stern and Dietz 1995) that was described in the theory section explained that external factors as well as attitude could affect if green behaviour actually occurred. Therefore, despite the articles managing to trigger an enhanced sense of PCE and proving the first hypothesis accurate, external factors such as expensiveness or inconvenience might have caused the respondents to react so negatively that it outweighed the positive effects triggered by the texts. Since the test group consisted solely of students, the expensiveness of green products in general might have immediately created a negative view of the product, while another explanation could be that the student was still living at home and therefore did not even consider washing detergent as a product they would purchase.

5.2.3 The results for Hypothesis 3: Advertisement attitude

As was resolved in the data analysis, “*H3: If the respondent is exposed to an article that a) promotes b) discourages individual actions in the fight for the environment, it will have a a) positive b) negative effect on the individual’s advertisement attitude*” was not supported.

This conclusion was drawn based on the fact that there were no significant differences in the attitudes towards the advertisement between the positive and negative groups, despite theory supporting the opposite outcome. The original basis of this hypothesis was the notion that consumers with a high PCE were more prone of responding positively to environmental advertising than those scoring low on PCE. However, attitude towards the advertisement revolves around a number of different factors, each playing a role in the final evaluation. As a result, these factors, which can be applied to both groups, seemed to have coloured the attitudes of the respondents to a greater extent than the contents of the two articles. Therefore, despite the articles managing to trigger an enhanced sense of PCE and proving the first hypothesis accurate, other advertisement-related factors might have outweighed the effects triggered by the texts and therefore influenced the respondents to react less positively.

The copy used in the advertisement was simple in nature and addressed to the greenhouse effect through the sentence: “Turn to 30 – One way to help keep the world’s temperature down”. Research suggests that green advertisement effectiveness varies depending on claim types, so for instance, vague claims result in less favourable advertisement and brand attitudes than specific claims do (Davis 1993). One could argue that the claim used in the survey might have been viewed as a fairly vague one, which in turn suggests that the attitudes were skewed towards a less favourable position, compared to if a more specific advertisement claim had

been used. For the performed experiment it was not, however, the specific claim of the advertisement that was relevant, but instead to what degree the attitudes were influenced by the additional environmental context provided by the article. Keeping this in mind, it might not have mattered what type of advertisement claim that was used in the survey (vague/medium/strong), but the possibility that the vagueness had a negative impact on the outcome of the hypothesis, should definitely not be ruled out. One should also note that since the positive group had the highest means in most cases, a small tendency for a stronger PCE to trigger a more positive outlook on the advertisement attitude could still have existed.

As a whole, the advertisement projected a very “environmental” feeling, using green as the dominating colour and having a picture of the globe, leading the thoughts to Earth and the “wider context”. It is, however, impossible to say which aspects of the advertisement that had the largest impact on the attitude seeing they could have originated from the headline, the content of the copy, the creative elements, or the images used in the advertisement. Additionally, recent findings suggest that one of the factors influencing how much attention will be paid to an advertisement is the attitude the individual has towards advertising *in general*. This notion enhances the impression of how complex it is to evaluate advertisement effectiveness even further, making it clear that there exist many sources of errors when evaluating advertisement attitudes in these kinds of experiments (Mehta 2000).

The discussion concerning buying intention described that even if the individual is exposed to the concept that a specific green activity will make a difference, this will only influence how willing the person is to engage in that specific activity and not in other green actions. Using this statement and the Hierarchy of Effects Model as a base, one realises that since buying intention stems from the attitude towards that product, these requirements of specificity must also apply to the attitude. Therefore, having the advertisement revolve around an ecological detergent while at the same time using a very general environmental text to stimulate attitude, there was a potential risk that the articles were too vague to pose an impact on the attitude towards the detergent advertisement.

5.2.4 Results of Hypothesis 4: Brand attitude

The analysis of the data showed that, “*H4: If the respondent is exposed to an article that a) promotes b) discourages individual actions in the fight for the environment, it will have a a) positive b) negative effect on the individual’s brand attitude*” was not supported.

The hypothesis was not supported due to the fact that there were no significant differences in the attitudes towards the brand between the positive and negative groups despite theory supporting the concept that there should have been. The assumptions that were used as the founding blocks for the hypothesis were:

- 1) That if hypothesis 1 was supported, the positive group would score higher PCE values than the negative equivalent
- 2) And consumers with a high PCE were more prone to responding positively to environmental advertising when compared to those who scored low on PCE
- 3) That brand liking could be enhanced if the promoted environmental benefit of the advertised product had a real impact on the world, which for the experiment one could expect the article would either strengthen or weaken the impression of.

After hypothesis 1 was supported, it came as a bit of surprise that the two groups did not differ significantly in their brand attitudes. A point worth mentioning when elaborating around possible explanations to this outcome is the choice of brand used for the experiment. When testing brand attitudes in these types of experiment, a more logical approach would be to choose a brand with little or no anchoring in the minds of the respondents. The reason for this is to avoid bias caused by numerous experiences with the brand, since previously instilled knowledge affects how an individual interprets new information concerning a brand (Friestad and Wright 1994; Hamill and Lodge 1986). Ariel is one of the more well-established detergent brands in Sweden, which could possibly explain why the articles had no manipulation effects on the attitude of the brand. Inculcated attitudes are relatively hard to alter, and there is therefore a risk that the respondent did not connect the advertisement to the messages presented in the article, but instead made connections to his/her “prior to the survey”- attitude. Therefore, despite the articles managing to trigger an enhanced sense of PCE and proving the first hypothesis accurate, former attitudes towards the brand might have outweighed the effects triggered by the texts.

If an advertisement manages to gain the consumer’s attention, processing follows along two routes: central and peripheral (Petty and Cacioppo 1981, 1986). Brand attitude is captured in the central route and focuses on product- and/or brand-related information. However, the peripheral process related to the advertisement attitude also has the ability to influence the attitude of the brand, so with this in mind, one can never be wholly sure if the attitude towards the brand originates from the product- and/or brand-related information, or if it is in fact

mirroring the attitude of the advertisement. Moreover, the influence that attitude has towards the advertisement and brand attitudes is even more significant for low involvement products (Lutz 1985). It would thus be interesting to make an identification of these peripheral and central routes in order to pinpoint distinct areas of strengths and weaknesses connected to product/brand and creative characteristics. Unfortunately the scope of the experiment did not permit for disclosure of these aspects of the advertising performance, but further study within this area is highly recommended.

What has already been identified before as a potential explanation for the letdown to prove Hypothesis 2 and 3 accurate was the possible miss of having the articles revolve around too general topics, instead of making them more specifically interconnected to the message of the advertisement. As stated before, even if the individual is exposed to the concept that a specific green activity will make a difference, this will only influence how willing the person will engage in that specific activity and not in other green actions. This might have posed a plausible obstacle in influencing the respondents' brand attitudes towards the detergent brand.

Furthermore, one could elaborate on whether the advertisement meets the requirements of promoting a real environmental impact. The advertisement is promoting an impact in fighting the greenhouse effect, but one could question the vagueness of it since it does not give any specific information or quantifications of the real impact of partaking in the green activity.

5.2.5 Greenwashing

There is definitely a need to remember that other factors than the ones used in the study can play a part in affecting a consumer's attitude and buying intention, especially in the case of green advertisements. One of these is the risk of greenwashing, which involves exaggerating, falsifying or having vague green marketing claims. It has become one of the main inhibitors for environmentally conscious individuals and has led to the increased scepticism towards green offers. Though it was never explicitly called greenwashing in the discussion, one can clearly notice the importance that a clear and informative advertisement message can have on consumers and therefore, companies need to constantly keep this in mind when designing their green campaigns.

5.3 The neutral group

The responses of the neutral group showed some very interesting trends, both through the respondents' answers for the PCE questions and where their opinions lay concerning the advertisement, the brand and any possible buying intention of the product. Since the group's original purpose was to be a benchmark for the other two groups, it came as quite a surprise when their values were not between the other two but instead the most extreme in either a positive or a negative direction. Due to this, the group was stripped of its benchmark purpose and instead became a topic of discussion and a potential means for further research.

For the PCE questions, Group 3 always had the most "positive" environmental answers, while for the advertisement, brand and buying questions this group seemed to have the most critical values.

Though one can only speculate around these results, this could either indicate that a person who is not exposed to PCE is more prone to positive thinking or that when a person is not exposed to something factual, he or she will tend to over exaggerate their environmental opinions. This tendency was also shown in their answers for the general "green opinion" questions, where they expressed great concern for the environment, indicated that they often partook in eco friendly activities and had a strong tendency to purchase environmental products. As for the advertisement and brand questions, the neutral group seemed to have the most negative views in both cases, which was also interesting since it might imply that a person who has not been exposed to environmentally related information will be more pessimistic towards green advertisements and the brand behind it. This in turn strengthens the notion that these individuals exaggerated their answers, seeing as they were so negative towards the product despite their other claims of being green.

Another possible explanation to these peculiar answers concerns the possibility that the respondent was being ambivalent towards the product, which occurs when a person experiences negative and positive emotions simultaneously concerning a topic (Scott 1966). Some of these negative evaluations are caused by scepticism toward green marketing in general, but they might also reflect a sense of low perceived consumer effectiveness. Nordgren, van Harreveld, and van der Pligt (2006) revealed that amongst consumers who had ambivalent attitudes triggered by an article with contradictory messages, those who experienced a stronger sense of discomfort caused by ambivalence engaged in motivated processing by generating more one-sided opinions. This suggests that the neutral group might

have experienced similar ambivalent feelings when they were exposed to their designated article, which was completely unrelated to any environmental topic. This might have created difficulties for them when they were later required to express their opinions in the PCE questions, which in turn could have lead to them taking more extreme standing points.

This is, however, speculation based on the facts that were drawn out from the data and therefore it is highly recommended that further studies are conducted concerning this particular trend before drawing any final conclusions.

5.4 Managerial Implication

This report has contributed to the continued understanding of perceived consumer effectiveness' value for environmental marketers and how it can potentially be affected using specially designed marketing campaigns. The results showed that through the usage of a well-designed text, one could influence and strengthen a consumer's sense of PCE. Though PCE's connection to brand attitude, advertisement attitude and buying intention was far from clear, there is still much research to be done in the area, especially determining the true connections between the first three variables. Yet, it has been previously established that perceived consumer effectiveness is only one of many factors that affects a consumer that is exposed to environmentally angled advertisement. The risk of greenwashing and the perceived knowledge are examples of such factors, and marketers should not neglect to also consider these when designing a campaign.

Although we did not test it in the current study, honesty should be a key factor for any marketer, especially when it comes to attempting to advertise a green product in modern society. Scepticism along with a critical eye towards marketing campaigns in general has left the population wanting more, and by avoiding the trap of being too vague in one's claims, a marketer's message stands a larger chance of being noticed in a more positive light. This is also where a strengthened sense of PCE plays a part, being an important factor when the consumer is evaluating the product. Therefore, companies should start considering perceived consumer effectiveness as a valuable tool when designing environmental campaigns, since in its negative form it restricts a consumer's sense of worth when performing green behaviours. By formulating the advertisements so that they express an individual's power and influence in the fight for the environment, while at the same time backing up the statement with simple and truthful information, the company can create a sense of credibility and worth to their cause instead of triggering the scepticism that has become so common among customers. If

companies start using perceived consumer effectiveness with the wrong intentions, there is a potential a risk that consumers will soon start to view these statements with equal scepticism as they currently do towards regular green advertisements. Therefore, PCE should be used in combination with clear, reliable information if the company wishes to reap its benefits.

When formulating this PCE-inducing copy, the company needs to make sure that the statements are connected specifically to the product meant for sale, since theory has shown that the connection between PCE and buying intention has a stronger chance of occurring if the message is connected to the wished behaviour. Also the results of this report indicate that this might be the case, since the tested advertisement and the tested articles were not as visibly connected and the resulting hypothesis that concerned buying intention were not supported.

5.5 Rooms for improvement

It is a simple fact that there is always room for improvement regardless of the study, and this report is no exception. Throughout the writing process, several difficulties and unexpected problems arose, many of them caused by the authors themselves and though many of these were easily solved, others had deeper roots and therefore caused numerous difficulties.

5.5.1 Buying Intention

The fact that the buying intention questions yielded no significance between the groups' means was both interesting and slightly problematic. Previously released research had several differently angled views on how a triggered sense of PCE would affect the actual buying intention that followed and therefore, the results of this report's experiments are not necessarily wrong. However, it is an established fact that the phrasing of a question in a survey context can have quite an impact on the general response to the question (Söderlund 2012), and one needs to therefore criticize the way that the buying intention questions were formulated. If, for example, the answers might have been different if the question "*What is the probability that you would purchase the advertised product?*" had instead been phrased "*If you were in need of this product, what is the likelihood that you would purchase this product over another?*" There is a chance that the respondents answered the questions based on their current need for the product and therefore, if the individual already had washing detergent at home or does not buy washing detergent, they might have felt less inclined to answer that they would purchase this product. A more specific question could therefore have yielded a stronger significance between the groups' means.

5.5.2 The Advertisement

Due to the limited resources and time span, only one advertisement was used in the survey, since the main focus rested with the manipulated articles and not the actual product presented in the advertisement. This was a decided upon limitation, but it also meant that the scope of the report would technically only cover washing detergents or at best low-involvement products. The choice of advertisement was based on the qualifications that it had to be good enough to draw one's attention, but not so good that it would overshadow the articles. Also, the fact that the company behind the advertisement was Ariel can have a strong effect on the overall impression of both the brand, the advertisement itself and the buying intention, from the respondents' previous encounters with it. Therefore, a suggestion of further testing is to experiment using various green advertisements for both low- and high-involvement products.

Another aspect of the advertisement that needs to be considered is that, according to numerous articles, an individual will through the PCE of a specific activity be more prone to start performing only that and not become more environmental in any other way. The original intention was to keep the article as broad as possible, touching upon the general concept of environmentalism. However, if the article had contained specific information about what the individual can do when using washing detergent to help the environment, the overall buying intention and other aspects that were asked for in the survey might have become more obviously different between the groups.

5.5.3 Potential experimental flaw

A deliberate decision was to manipulate the content of the survey to such a degree that the goal of the experiment did not become obvious. Through this choice, many of the questions ended up focusing on the advertisement and not the reaction to the article, but if the focus had shifted, there was a risk that the respondents would figure out the purpose. However, from this decision, potentially interesting information might have been lost.

Another potential flaw is that environmental concerns and activities have a tendency to trigger a certain over exaggeration in respondent's answers. Through these actions, the individuals might appear more environmental than they actually are, and the formation of the survey tried to counter this by asking numerous green questions, some of which had a much less obvious

“good” or “bad” answer. Yet, one does need to consider the possibility that a few values became slightly exaggerated because of these types of individuals.

5.6 Recommendations for further studies

Numerous recommendations for further studies have already been mentioned throughout the report, but there are still a few that need to be highlighted. The peculiar trend of the neutral group is definitely something that should be explored further, since their trend of over exaggerating green opinion might give some valuable insights on how the general group thinks. Though this exaggeration might have been an anomaly that occurred for this experiment, it would be interesting to determine if the group by default is prone to exaggerate their environmental claims unless exposed to something more informational from a company. By testing numerous types of products and advertisements, one could understand how the average individual reacts towards green advertisements and where they view themselves on the various scales presented in this report.

Other potentially interesting research areas could revolve around truly understanding the limits of PCE’s connection to buying intention and where the flip from strong intent towards acting and not reacting at all occurs. The same in depth research should also be applied to the connections PCE has to advertisement attitude and brand attitude, since this relationship is still relatively unexplored within the academic community. Additionally, various advertisements and products should be used to better understand these connections and to lower the chances of predefined opinions coming too much into play.

An extension of the performed experiment would also be interesting, and could lead to a better understanding of the length of the effect that the articles had on the respondents PCE, buying intention and similar factors. Did the articles act as only a temporary opinion setter, soon to be forgotten after the respondent handed in the questionnaire, or did it have more long-term effects? Such research would help set up guidelines for creating PCE inducing messages that remained with the consumer even after the interaction with the advertisement has ceased, and could act as a valuable tool for companies attempting to go green.

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7. Appendix

The first page of the survey for all three versions:

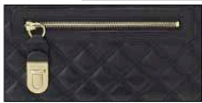
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The continuously expanding trend of green thinking - consumers matter

By JONATHAN GRAY
Published: March 11, 2012


Green thinking has reached a global scale, as families and organizations search through their respective activities in hope of finding a means of reducing the effects they have on the environment. Surrounded by media's continuous reminder of the planets' slowly impending doom, it comes as no surprise that societies encourage a greener way of thinking, hoping to meet the increasing demands from activists and stricter regulations through environmental protocols. Skeptics however, have long been unsatisfied, asking for proof of humanity's effects on the environment, as well as why they should bother changing their ways of life.

On February the 26th, researchers from Weizmann Institute of Science in Israel announced that after 10 years of research, they now – through their collected data – know which industries and members of societies across the globe had done the most in the fight for the environment. The biggest surprise on the list was the big effect that the average individual had on the environment. It turns out that through the collected every day efforts of the population, the footprint in nature had been reduced dramatically. The small changes that families had accomplished in their households had done more for the environment than many of the listed industries. The findings support the notion that individual consumers have very big impact on the environment.


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The continuously expanding trend of green thinking - consumers doesn't matter

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Published: March 11, 2012


Green thinking has reached a global scale, as families and organizations search through their respective activities in hope of finding a means of reducing the effects they have on the environment. Surrounded by media's continuous reminder of the planets' slowly impending doom, it comes as no surprise that societies encourage a greener way of thinking, hoping to meet the increasing demands from activists and stricter regulations through environmental protocols. Skeptics however, have long been unsatisfied, asking for proof of humanity's effects on the environment, as well as why they should bother changing their ways of life.

On February the 26th, researchers from Weizmann Institute of Science in Israel announced that after 10 years of research, they now – through their collected data – know which industries and members of societies across the globe had done the most in the fight for the environment. The biggest surprise on the list was the small effect that the average individual had on the environment. It turns out that despite the collected every day efforts of the population, the footprint in nature had only been reduced marginally. The accumulated small changes that families had accomplished in their households were greatly overshadowed by just a few organizations' efforts. The findings support the notion that individual consumers have very little impact on the environment.


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Lost phone? There's an 89% chance somebody tried to access data

By JONATHAN GRAY
Published: March 11, 2012

Losing a smartphone won't just cost you the price of a new phone. A recent study shows that there's a strong likelihood it will cost you your privacy as well. There is a 96% chance that the finder of a lost cellphone will access the device, and an 89% chance that the finder will access it for personal-related apps and information, according to a new study commissioned by the privacy software company Symantec Corp. The study also found that there is only a 50% chance the finder will try to return the phone to the person who lost it. Symantec arrived at these conclusions after deliberately "losing" a total of 50 smartphones in five cities: New York City, Washington D.C., Los Angeles, San Francisco and Ottawa, Canada.

The phones were preloaded with fake apps that would be instantly recognizable to a finder. They were also equipped with a GPS tracking device, as well as the ability to transmit data, such as when an app was opened, to a central database. Researchers then left the phones in high-traffic areas like shopping malls, food courts and public transit stops and waited to see what happened. According to the report, six out of 10 finders attempted to view social media information and email on the phones, eight out of 10 finders tried to access phony corporate information that Symantec had loaded on the phone. But before you despair, note that there is one very easy thing you can do to protect your phone: Make sure it is password protected.

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The green advertisement from Ariel that was used in the survey

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Columns

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Too Often, Doctors Overlook Narcolepsy

By JANE E. BRODY

Studies suggest that narcolepsy is far more common than most doctors realize, and it is frequently misdiagnosed.

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What Happened to the Girls in Le Roy

By SUSAN DOMINUS

When 18 students started twitching, parents suspected the environment. The answer turned out to be much more complex.

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By MATT McALLESTER

Who wants to practice medicine in a country where they use power tools in surgery? The dilemma of doctors in the developing world.

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The questions that were asked in the survey:



PLEASE ANSWER ALL QUESTIONS ON BOTH SIDES!

First please answer some questions about the advertisement you saw. The one to the right.

The advertisement:

	Disagree 1	2	3	4	5	6	7	8	9	Agree 10
Catches my attention	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is interesting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Claims are easy to understand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Message is memorable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Makes me want to find more information about the brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

My overall impression of the advertisement is:

	1	2	3	4	5	6	7	8	9	10	
Unlikable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Likable
Bad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Good
Unfavourable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Favourable

My overall impression of the brand is:

	1	2	3	4	5	6	7	8	9	10	
Bad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Good
Unlikable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Likable
Unfavourable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Favourable
Lacking quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Superior quality
Not useful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Useful

What is the probability that you will:

	Improbable 1	2	3	4	5	6	7	8	9	Probable 10
Try out the advertised product?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Purchase the advertised product?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pay a higher price for this product?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recommend the product to a friend?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Now comes some question about you.

I am concerned about the environment:

	1	2	3	4	5	6	7	8	9	10	
Not concerned	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concerned

There is not much any one individual can do about the environment:

	1	2	3	4	5	6	7	8	9	10	
Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Agree

I can protect the environment by buying products that are friendly to the environment:

	1	2	3	4	5	6	7	8	9	10	
False	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	True

I feel as an individual capable of helping solve the environmental problems:

	1	2	3	4	5	6	7	8	9	10	
False	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	True

What are your general opinions about green products. They are:

	1	2	3	4	5	6	7	8	9	10	
Untrustworthy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Trustworthy
Bad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Good
Cheap	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Expensive
Ineffective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Effective
Inferior in quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Superior quality

In the fight for the environment, you:

	1	2	3	4	5	6	7	8	9	10	
Are unconcerned	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Are concerned
Do not make an effort	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Make an effort
Seldom buy green products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Often buy green product
Find that the issue is underestimated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Find that the issue is exaggerated

Here is a questions about the article

How thoroughly did you read the article?

Not thoroughly 1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>	7 <input type="radio"/>	8 <input type="radio"/>	9 <input type="radio"/>	Thoroughly 10 <input type="radio"/>
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Age: _____

☐ Male

☐ Female