A neuromarketing perspective of green advertising. The influence of environmental advertising appeals and CSR to consumers.

Ioanna Yfantidou

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Principal Supervisor: Associate Professor Georgios Tsourvakas

Aristotle University of Thessaloniki

School of Economics and Political Sciences

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To my daughter...
Abstract

The proliferation of environmentally friendly products and services in recent years has compelled marketing and advertising practitioners to search for new methods of creating efficient advertisements and marketing campaigns. Marketers are constantly asked by upper management to justify their selection of specific advertising appeals over others and provide evidence of sustainability. As competition for consumers’ limited attention is of great concern in today’s crowded markets and media, it is essential to comprehend how and when consumers devote attention to advertising stimuli and what defines their attention patterns and buying behaviour. To address this issue, academics over the past 20 years have introduced various approaches that assess consumers’ purchase intention and their attitude towards green and social advertising based on several theories.

There is rich debate in social and environmental marketing with regards to communicating specific appeals that will positively influence consumers. Nevertheless, recent years have witnessed a fundamental shift on what advertising attributes are more appealing to consumers. There is evidence that negative messages and negative imaging (the “sick baby” appeal) create a sense of threat among consumers which leads to them taking action towards the advertised environmental cause. On the other hand, it has been found that environmental marketing is more effective when consumers are left to believe that they can actually solve the problem; therefore, green advertising should emphasize on promoting success rather than failure (the “well baby” appeal).

The purpose of this study is to test negative and positive appeals (sick baby/well baby) in communications that advocate environmentally friendly products and CSR actions. Specifically, we are investigating six different advertising appeals about a particular environmentally friendly product. Three of the advertising appeals are related to negative emotions (fear, guilt and disgust) and the other three are related to positive messaging (environmental benefits, personal benefits and societal benefits).
Process tracing data help researchers understand how advertising techniques and marketing methods influence consumer information processing behaviour. In a laboratory experiment eye movement data were collected while consumers were asked to view six different advertisements of a green product, each of them disclosing diverse product attributes. At the same time, participants were asked to complete three sort online surveys after viewing each of the green advertisements. The survey data were subsequently analysed using ANOVA and t-tests to assess correlations regarding attitude towards the ad and purchase intention; while the eye tracking data provide evidence on what grabbed the participants’ attention and what was their eye scan path whilst looking at each advertisement.

The theoretical and managerial contributions of this research outline the need for marketing researchers and practitioners to evaluate the demographic and psychographic characteristics of their target audience and communicate green advertising appeals accordingly. We found evidence that gender and age play a crucial role both in catching the viewers’ attention and in their intended buying behaviour. This research shows that ecolabelling is somewhat unsuccessful in grabbing consumer attention. Also, it was found that positive messages and positive imaging is more pleasing compared to negative appeals that create a sense of threat. The findings of this research can be utilised by companies and advertising agencies as they provide proof of building successful green and social advertisements.
Declaration

No portion of the work referred to in this dissertation has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

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Ioanna Yfantidou

Aristotle University of Thessaloniki

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Introduction

Over the years academics believe that the purchase decisions of ethical consumers are based on various reasons that are not at all universal. Haytko and Matulich (2012) recently found that there are no sufficient tools regarding the drives behind consumers’ attitudes towards eco-purchases. Some consumers prefer eco-products because they care about the environment, while some others do so because they save money. Besides, Harisson et al. (2005) also admit that ethical consumers are quite a complex group; therefore their motives and behaviours are very often researched by academics and marketers.

The last decades advertising is no more considered simply as the disclosure of information related to a product or a service. The definition of advertising is shaped by scholars as ‘any form of paid one-way communication from a sponsor or a marketer in order to influence consumers’ decisions and stimulate their purchase intentions’ (Arens, 1996; Belch and Belch, 1995; Lamb et al., 2000; Pieters et al., 2010).

Evidently, companies that engage in corporate social responsibility (CSR) policies and produce sustainable products are more and more interested in promoting and advertising their goods’ green attributes in a different way so that they appeal to consumers. Iyer, and Banerjee (1993) claim that there is an increase of green product ads, but they admit that little is known about their appeal to consumers. This may be a result of the divisiveness of consumers when it comes to their knowledge of green products but also their concern about the environment or the community.

To conclude, both companies and consumers are influencing each other towards sustainable practices and literature supports that advertising has a key role in consumers’ decision making. Moreover, consumers’ and organizations’ reactions are influenced by the cultural orientation of the country in which they operate.

This study aims to highlight the main characteristics of green and social advertising and its effect on consumers through multiple correlations. Firstly, we aim to
investigate the effect of negative emotions on consumers’ purchase intentions and their attitude towards the advertisement. Then, we examine whether eco-labels and pro-environmental advertising claims are more or less successful compared to personal benefits claims. Lastly, we seek to study how people view a cause-related advertisement that doesn’t promote any product characteristic. We categorize our sample into environmentally involved or not involved consumers in order to examine even more relationships between advertising and such sample categorization (Harisson et al., 2005). Primarily, we are looking at the subjects’ attitude towards the ad in order to identify similarities and differences between the six manipulated ads that promote different attributes. To reach our goals we have employed a neuromarketing approach with the following research methods: an experimental study with the use of eye tracker and quantitative method with multiple surveys.
1.1. Definition of Marketing

The latest definition of marketing by the American Marketing Association (AMA, 2004) describes marketing as ‘an organizational function and set of processes for creating, communicating and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders’.

The previous definition given by AMA in 1985 focused on marketing being the process of organizations to ‘market themselves’ to customers (De Pelsmacker et al., 2013), whereas the latest definition recognizes that marketing is about delivering values not only to customers but to multiple stakeholders. It is indeed an improved definition that puts customers to the centre of marketing because of the interaction with companies in order to co-create value. Thus, companies do not add value rather they can only propose value suggestions (Lusch, 2007) by looking into the societal role of marketing. Similarly, it is stated in AMA’s constitution (1937) that marketing involves a ‘societal nature’ where one of the goals is to ‘better public understanding’.

1.1.1 Integrated Marketing Communications

The importance of consistency and synergy, as the basic principles for marketing, has been widely highlighted by academia (Schultz et al., 1992; De Pelsmacker et al., 2013). Specifically, practitioners should use marketing tools in the same direction, in order to create consistency and synergy under an integrated marketing communications strategy (Schultz et al., 1992). Marketing tools must be homogeneous, maintain clarity and coherence to deliver the ultimate communication impact (De Pelsmacker et al., 2013).
From a consumer’s point of view, inconsistent messages generate frustration (Englis and Solomon, 1996). Consumers do not understand the difference between the diverse marketing instruments (i.e. advertising, email marketing, PR); as all those tools are used by firms to influence consumers’ purchase intentions (Schultz, 1996). On the contrary, by using integrated marketing communications it is clear that professionals build a point of contact between the consumer, the product and the company (Schultz, 1996).

The following table (Table 1), derived from van Raaji (1998), provides a better understanding of the differences between traditional marketing and integrated marketing communications.

<table>
<thead>
<tr>
<th>Classic Communications</th>
<th>Integrated Communications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aimed at customer acquisition</td>
<td>Aimed at customer retention, relationship management</td>
</tr>
<tr>
<td>Mass communications</td>
<td>Selective communications</td>
</tr>
<tr>
<td>Monologue</td>
<td>Dialogue</td>
</tr>
<tr>
<td>Information is sent</td>
<td>Information is requested</td>
</tr>
<tr>
<td>Information provision</td>
<td>Information-self-service</td>
</tr>
<tr>
<td>Sender takes initiative</td>
<td>Receiver takes initiative</td>
</tr>
<tr>
<td>Persuasive ‘hold up’</td>
<td>Provide information</td>
</tr>
<tr>
<td>Effect through repetition</td>
<td>Effect through relevance</td>
</tr>
<tr>
<td>Offensive</td>
<td>Defensive</td>
</tr>
<tr>
<td>Hard sell</td>
<td>Soft sell</td>
</tr>
<tr>
<td>Salience of brand</td>
<td>Confidence in brand</td>
</tr>
<tr>
<td>Transaction-oriented</td>
<td>Relationship-oriented</td>
</tr>
<tr>
<td>Attitude change</td>
<td>Satisfaction</td>
</tr>
<tr>
<td>Modern: linear, massive</td>
<td>Postmodern: cyclical, fragmented</td>
</tr>
</tbody>
</table>

Table 1: Classic and integrated communications

Since both academia and practitioners agree than integrated marketing communications is the best way to create synergies and generate added value for the products and the organizations, the problem of cultural marketing arose. Should integrated marketing communications be localized or globalized? It is important to
underline that there is evidence to support that integrated marketing communications should adapt to the foreign marketplace (De Pelsmacker et al., 2013). For example, over half a century ago Lee (1966) believed that lots of companies go down to the self-reference criterion (SRC) which is the bias to attribute everything to our own cultural values. In our time scholars believe that integrated marketing strategies should not be standardized; instead practitioners should employ a local approach in terms of ‘concept, setting, theme, appeal and message’ (De Pelsmacker et al., 2013: p. 11) whilst some outstanding creative ideas can work everywhere around the globe. Marketers and advertisers should keep the best ideas of an integrated marketing strategy and localize some parts of the campaign execution in order to respect the diverse cultural values and avoid needless crises (De Pelsmacker et al., 2013). The aforesaid tactic is described by Keegan (2002) as ‘glocalisation’, which means global localization.
Chapter II: An Overview of Green Marketing Research and CSR

2.1. Green Marketing research

In the last few decades, environmentalism has developed and become a mainstream concern (Mathur and Mathur, 2000). Academia notes that the green movement has grown so much in recent times that all everyday activities like purchases, technology, consumption, even politics are affected by the environmental movement evolution (Zinkhan and Carlson, 1995). Numerous organisations consider green marketing as a must in order to endorse their image and reveal their environmental awareness (Ongkrutraksa, 2007). To highlight the significance of this stream, it is suggested that previous researches and findings should be reviewed because of the rapid changes both on the environment and on consumer decisions (Ongkrutraksa, 2007).

As a consequence, the green movement has received much attention firstly from the public and then from the managers who shifted from a re-active way of doing business to a pro-active approach (Mathur and Mathur, 2000). In an effort to embrace change, Polonsky (1994) notes that companies rapidly accepted a number of environmental concepts and embodied green issues into all corporate activities. To support his argument, the author suggests that clear evidence is the rise of journals such as ‘Business strategy and the environment’, ‘Greener management international’, and lots of others. Environmental or green marketing grossed $9.18 billion in 1995 and it was more than tripled five years later reporting $30 billion in 2000 (Ongkrutraksa, 2007). This breakthrough can be explained as an attention-getting effort from marketers to provide innovative products as a response to today’s competitive world environment (Ongkrutraksa, 2007).

In an attempt to describe why is green marketing important, Polonsky (1994) argues that we need to understand the definition of Economics. He provides a definition by McTaggart et al. (1992) according to which ‘Economics is the study of how people use their limited resources to try to satisfy unlimited needs’ (p. 24). So people recognise that there are limited resources on earth while our wants are basically unlimited. Then, it is companies’ responsibility to fulfil people’s unlimited wants by developing
alternative ways of producing products and services (Polonsky, 1994). Green marketing is on the whole a marketing activity that describes how a company should make the most of these limited sources in order to balance customers’ boundless requests along with organisational performance (Polonsky, 1994).

More than twenty years ago researchers found that consumers react positively to environmentally friendly images (Carlson et al., 1993). Additional research shows that capital markets (i.e. banks or financial institutions) request green audits of companies in order to ensure funding (Mathur and Mathur, 2000). On the other hand, a study showed that consumers are not ready to pay more for green products or services (Casey (1992), but someone can argue that the aforesaid research is outdated since a more recent study found that consumers who weren’t willing to pay higher prices for green products, have now shifted their behaviour (Neff and Thompson, 2007). To conclude, there is poor verification that green marketing strategies are either clearly effective or boost corporate performance. As a matter of fact, Mathur and Mathur (2000) were the first scholars to study stock price reactions to announcements associated with green marketing. Their findings put forward that negative stock price reactions occurred ten days prior and after green marketing announcements (i.e. recycling efforts or new environmental policy).

Concluding, there is lack of consistency regarding one definition of green marketing. For this paper we accept Polonsky’s (1994) definition of green marketing: ‘the promotion and advertising of products with environmental characteristics’ (p. 1). The author highlights the importance of including services too as they can be green as well (i.e. ecotourism). Lastly, Polonsky (1994) underlines the importance of understanding what green marketing combines: modification of the product itself, the production process in general and also adaptation of the advertising methods.
### 2.1.1. Eco-labels in Green Marketing

Contemporary literature suggests that eco-labels serve as a tool for consumers when they go shopping whilst, at the same time, they strengthen their purchase intentions (Thøgersen, 2000; Rashid, 2009). However, eco-labels are helpful from an environmental policy viewpoint only if they are acknowledged by the consumer in a buying condition, understood and appreciated as a tool for decision-making (Thøgersen, 2000). In addition, D’Souza et al., (2006) think that eco-labels can be used to communicate the product’s green characteristics and the brand’s competitive advantage.

The European Commission (2009) advocates that the existence of an eco-label on any kind of product implies that the product has been checked by an independent EU body and certified as environmentally friendly, thus reinforcing its credibility and trustworthiness.

Most of the available studies on eco-labeling fixate on consumers’ identification of or knowledge about green certifications (Pieters et al., 2010). Nevertheless, it is believed that consumers are often puzzled from the existence of hundreds of eco-labels (Robertson and Marshall, 1987; Muller, 1985; West, 1995; Caswell and Modjuszka, 1996). Subsequently, if consumers don’t comprehend the meaning of the eco-labels then how is it possible that their purchase intention is affected by them? Also, if consumers don’t understand eco-labels then do they pay any attention to eco-labels while looking at an ad? This research will help answer these questions by performing an eye tracking experiment that measures the participants’ attention towards eco-labels in different advertising context.

Lastly, this research will draw upon Royne et al.’s (2012) study about the difference between a green advertisement that promotes the product’s environmental attributes (with the use of eco-labels) and one that advocates personal gains from buying this product. To do so we are comparing two manipulated green advertisements of the same product whilst each discloses diverse attributes: a) pro-environmental claims, and b) personal benefits.
2.2.2. The emerge of Green Advertising

Albeit the objective of advertising is to inform, remind and persuade, the objective of green advertising is to forge recognition, understanding and conditional approach towards brands and organizations (Adcock, 2000).

The interaction of marketing activities with the natural environment has been described over the years with multiple phrases like green, sustainable, environmental or ecological (Peattie, 2001; Polonsky, 1994). In accordance with academia we consider this phraseology as fairly similar (Chamorro et al., 2007; Peattie and Crane, 2005) but we believe that Banerjee et al.’s. (1995) definition is more comprehensive. Banerjee et al., (1995) describe green advertising as any ad that highlights the relationship between a product and the biophysical environment; endorses green lifestyle or builds up an organizational image of responsibility. Hence, this paper accepts the abovementioned definition as the most holistic one.

Green advertising is not just about positioning environmentally friendly products (Kangis, 1992), rather it is an advertising type that ‘...has to refer both to the method and to the product’ (Papadopoulos et al., 2010, p. 2).

A recent study explains that green advertising is about promoting the three Ts created by the consumers: think, talk and take action (Ongkrutraksa, 2007). Since consumers are thought to raise their demands, marketers seem to respect the consumer wants, needs and beliefs and create green ads where all environmental characteristics should be explained through purposeful terms and pictures. The importance of clearly stating the environmental benefits of green products in order to avoid being described as greenwashing is highlighted by scholars (Ongkrutraksa, 2007). Specifically, there are some basic principles for creating a green ad: ‘a green ad has to be legal, decent, honest and truthful’ (Ongkrutraksa, 2007, p. 368).

Although green advertising begun in the 1970s due to environmental issues called up by oil consumption, today it came into sight again (Healey and Hagenbaugh, 2008) as it is the major tool for organizations to demonstrate their environmental awareness
and performance (Haytko and Matulich, 2008). Environmental affairs have ‘strategic implications’ for companies therefore they turn up in companies’ agendas for the last 30 years (Banerjee, 2002).

There is evidence that people who are proactive regarding environmental protection are also keen to green advertisements (Bush, 2008). Likewise, a study by Haytko and Matulich (2008) also describes green advertising as more effective towards consumers who are already attached to green or environmental attitudes. Since green consumerism has exceedingly risen the last years, businesses tend to respond to this trend by presenting analogous environmental sensitivity (Chitra, 2007; Chen, 2008; Erdman, 2008). From a business perspective, green advertising and CSR are two parallel concepts that provide the same competitive advantages to organizations (Papadopoulos et al., 2010).

Consumers’ intention to indirectly protect the environment by buying green products has lead to the rise of new sustainable markets (Cleveland et al., 2005). Even though Cleveland et al.’s study is almost a decade old, environmental matters continually resurface and green consumers constantly flourish, so we tend to believe that the rise of sustainable markets will continue. The authors also encourage the evolution of eco-marketing (synonym for green marketing) in order to align marketing for a new era and help practitioners provide advanced and up-to-date services. Eco-marketing and eco-advertising (synonym for green advertising) is growing but the main problem that marketers have to face is the evaluation of their green strategies (Haytko and Matulich, 2008). Consumer behaviours, intentions, thoughts and stances are difficult to measure, thus there are insufficient tools to estimate the effect of green advertising. Accordingly, understanding the nature of green consumers is vague and inexplicit, making it difficult to measure relevant marketing outcomes (Peattie, 2001; McCarty and Shrum, 2001). This study aims to measure the effect of varied green advertising techniques and gain a better understanding of the effect of green advertising on green and non-green consumers.

Most consumers find information about green products and services through the mass media and they tend to believe whatever the companies are advertising (Iyer
and Banerjee, 1993). However, we would like to question Iyer and Banerjee’s findings as they are more than 25 years old and they seem not to apply these days. The last decade our world has massively changed in a way that companies are not the protagonists anymore. Consumers are the ones who have gained control over corporate actions first of all due to the rise of the Internet in general and then because of the influence of social media to everybody’s everyday life (Carlson and Lee, 2015). As a result, if a company fails to advertise its products ethically and truthfully, the public is now able to scrutinize corporate actions and reveal organizational wrongdoings (Carlson and Lee, 2015).

On the other hand, academia has performed lots for experiments over the years in order to study green advertising. For example, Obermiller’s (1995) experimental study focused on the green ad appeals that are most effective on consumers. Schuhwerk and Lefkoff-Hagius’s (1995) experiments showed that print advertisements of green products were more appealing to consumers that are less involved with the environment. Another study by Starughan and Roberts (1999) demonstrates that psychographic criteria, rather than demographics, are more important when segmenting green consumers’ attitudes. While demographics are formed by dry fact regarding the consumer in order to create segments, psychographics include soft facts like hobbies, values, habits and help us understand the reason for consumers’ buying intentions (Hibma, 2013). Lastly, an experiment on green advertising by Trent (2000) clarifies that source trustworthiness does not affect consumer buying intentions as much as researchers think.

Consumers’ attitudes have been examined lots of times through the years, starting from the 1970s, and still the results are inconclusive. Though, Matulich et al., (1999) support that surveys developed in different times cannot be considered valid because of the societal, economic and environmental changes over the years. We regret to accept that we will never be able to dig deep into the consumers’ intentions and behaviors because they are inevitably subject to changes. This is a verifiable and unavoidable truth that we always have to keep in mind.
2.2. Definition of Corporate Social Responsibility and organisational benefits

Apart from their economic purposes companies also have social dimensions. According to the literature, Corporate Social Responsibility (CSR) concerns organizations since 1970s, but lately it also worries governments, NGOs and consumers as well.

Academics have tried to explain responsibility through various aspects but a common definition on CSR has not been agreed. Nor companies employ one certain description of responsibility. Actually, organizations usually plan their CSR strategies according to their stakeholders’ interests. Companies’ citizenship highly depends on the cultural traditions or the country in which they operate.

CSR is not only about building stronger relationships with all stakeholders; in the end it defines the organization’s survival through a challenging corporate strategy (Palazzi and Starcher, 2006). Balancing the various interests of all stakeholders (consumers, communities, employees, suppliers, shareholders etc.) creates a social corporate image. This social image shows that it is both the financial and social aspect that influences the company.

There is rich literature about the notion of social responsibility, even if there is no widely accepted interpretation (Hasnaoui and Freeman, 2010), but sometimes it feels as CSR has been used in numerous different schemes, that it has lost its true essence (Sethi, 1975).

In the early days, when the concept of CSR was being recognized, academia’s CSR guru, Davis, provided three quite different definitions of responsibility (Davis, 1960, 1967, and 1973). In 1960 he stated that sustainability can be described as ‘businessmen’s decisions and actions taken for reasons at least partially beyond the firm’s direct economic or technical interest’ (Davis, 1960, p. 70). More than a decade later the author provided another definition based on what CSR is not: ‘if CSR complies with the minimum requirements of the law then the organization is not considered as socially responsible’ (Davis, 1973, p. 313). Yet, Davis goes further
saying that ‘in the long run, those who do not use their power in a manner which society considers responsible will tend to lose it’ (Davis, 1973, p. 314). Finally, in order to support his arguments, Davis quotes Paul Samuelson—a widely known economist: ‘a large corporation these days not only may engage in social responsibility, it had damn well better try to do so’ (Davis, 1973, p. 312). Throughout Davis’ definitions and quotes it is obvious that the main principle is that a company is not only responsible to its shareholders but to the society as a whole, thus eliminating Friedman’s (1971) judgment that organization should only care about their stockholders.

A few years later, Carroll (1979) joined the CSR debate and provided a model (Figure 1) that is regularly referenced by many scholars even today. The author supports the view that CSR is a multi-dimensional construct which includes the economic, legal, ethical and discretionary categories of organizational performance (Carroll, 1979). In order to understand his view, the scholar explains his own following definitions for each of the above mentioned dimensions: Economic responsibility is the firm’s obligation to produce products and services that the society requests and to sell them at a profit - it is the foundation upon which all other responsibilities rest; Legal responsibilities are the requirements of the laws, rules and regulations under which a company is expected to operate; Ethical responsibility is the fulfillment of the society’s expectations of operating beyond legal requirements by being right, just and fair; Discretionary responsibility is the individual’s judgment and choice, where stakeholders expect managers to act in a philanthropic manner in order to improve quality of life (Carroll, 1979). Carroll highlights that it is possible for a company to move from one category to another, or to simultaneously be involved in actions that include all these kinds of responsibilities.
In a later article, Carroll (1991) favored another definition of CSR which describes sustainability as a means for ‘improving the quality of life or well-being of society’ (p. 42). Actually, Frederick (1986) had argued that CSR is a company’s attitude towards ‘social betterment’ and Carroll seems to agree and add upon this statement. Specifically, companies should be held responsible for any of their actions that affect the society’s or the environment’s well-being (Frederick, 1986).

A quite similar, and broadly referenced, definition of CSR obtained from Elkington (1997) refers to the ‘triple bottom line’: economic, social and environmental responsibilities of a corporation. The author uses other parallel expressions to give a description of these characteristics; he talks about the 3Ps: people, planet, and profits. A CSR strategy is a win-win corporate strategy, which means that all groups appertained will benefit from sustainability policies (Elkington, 1997).

In 2001 Zadek described CSR as a company’s willingness to ‘take greater account for its social, environmental and financial footprints’ (p. 7). Equally, other academics support that CSR should be based on societal expectations, to which companies should react upon (Hasnaoui and Freeman, 2010; Ackerman and Bauer, 1976).

On the other hand, more than two decades before Zadek, Sethi (1975) looked ahead and supported that it is impractical to determine or address a universally
acknowledged characterization of CSR because the concept of social responsibility greatly depends on cultural, political and time circumstances. In particular, ‘a specific action is more or less socially responsible only within the framework of time, environment and the nature of the parties involved’ (Sethi, 1975, p. 59). To mention an example, while in Western Europe or North America child labor is considered unethical, inappropriate or even cruel, in many developing countries it is lawful and very common for children to work in order to support the family income. Yet, if we look back a couple of centuries ago even in modern Europe child labor were encouraged. These examples briefly explain Sethi’s (1975) view about fundamental differences between diverse cultures and timeframes.

A managerial definition of CSR quotes that it is ‘the management of stakeholder concern for responsible and irresponsible acts related to environmental, ethical and social phenomena in a way that creates corporate benefits’ (Vaaland et al., 2008). This definition clearly includes instrumental reasons for engaging in CSR, where the goal is to create corporate profits of any kind (increase turnover, create positive reputation, retain employees etc.).

But why is CSR and cause-related marketing growing so much? There are eight widely accepted reasons for what drives organizations towards being socially responsible: 1) to improve their reputation, 2) to strengthen stakeholder relations, 3) to develop good government relations and avoid additional regulation, 4) as a response to the pressure from non-governmental organizations (NGO’s), 5) because of the rise of ethical investment, 6) because of the generation of high profile indexes, 7) because today consumers care about CSR, and 8) in order to improve their human resource management systems (Zappala, 2004).

Extant literature draws attention to the benefits and leverages that derive from corporate responsibility for the corporation by reinforcing and influencing organizational relationships with stakeholder groups (Hasnaoui and Freeman, 2010). Freeman (1994) defines stakeholders as any group of people who can influence or is affected by a company. However, stakeholders differ in terms of ‘their expectations of the corporation, their experiences regarding the effects of the corporation’s
behavior, and their evaluation of how well the corporation meets the stakeholder’s evaluations’ (Peterson, 2004, p. 297). Obviously, keeping all stakeholders satisfied is every company’s bet, since stakeholder interests may be in conflict.

The debate about linkages of CSR to financial performance and other benefits is rich and ongoing. Empirical research demonstrates that there is an indirect positive relationship between responsibility and turnover increase. This indirect relationship appears in stakeholder theory (Cornell and Shapiro, 1987; Freeman, 1994; Jones, 1995; McGuire et al., 1988) which emphasizes the need to expel the mono-stakeholder concept and establish a multi-stakeholder approach. It is more fruitful for researchers to look deeper into how CSR influences each stakeholder group in a different way, rather than try to find a direct link between corporate citizenship and corporate profitability (Wood and Jones, 1995).

Although there are still lots of unprogressive organizations, CSR is nowadays treated as an investment, not a cost (Palazzi and Starcher, 2006). For example, United Nations describes Ben & Jerry’s social responsibility plan as ‘caring capitalism’ opposed to ‘financial capitalism’ (Food and Agriculture Organization of the United Nations: www.agris.fao.org), and claim that CSR is a series of actions for continuous development.

Moreover, there are direct and strong linkages between CSR and profitability. In fact, Joel Makower believes that ‘one of the most socially responsible things most companies can do is to be profitable’ not only because they reward their shareholders but also because they produce more jobs, pay fair wages, develop new products, add up to the welfare of the community and so on so forth (GreenBiz, 2017 https://www.greenbiz.com/users/joel-makower).

A study by Vanderbilt University shows that companies described as ‘low polluters’ performed better financially that their counterparts ‘high polluters’. Another research in 1994 showed that 26% of potential investors check the CSR programme of a firm before making a decision on whether to invest in that firm (www.ashireporter.org). As a result, it is clear that corporate values and ethics matter when it comes to profitability and customers or staff loyalty.
A study by Russo and Fouts (1997) indicated that corporate profits are related to environmental stewardship. The researchers examined 243 Fortune 500 companies for two years, following both their financial and environmental outcomes. They found that companies with high turnover had also built a reputation of environmentally sound corporations. This is widely known as the green-beckets-green phenomenon. Even when it comes to stock exchange, the ICT Consulting in Virginia highlights that companies with strong citizenship are safer investments juxtaposed the ones with loose or none CSR strategy (www.nwf.org).

Indeed, companies which do business in a responsible manner hold a competitive advantage against those that do not (Freeman, 1994) as CSR strategies can establish customer trust, build a favorable reputation, and also serve as a buffer during hard times (i.e. corporate crises).

Almost twenty years later, Hasnaoui and Freeman (2010) have noted that social responsibility should be central to business strategy and not just an add-on for making profit. They explain that above all, CSR serves as a means to influence relationships with stakeholder groups. Companies that engage in CSR activities have the benefit of an ‘equilibrium mechanism’ that balances stakeholders’ interests, and thus manage their expectations and demands more effectively (Hasnaoui and Freeman, 2010).

Focusing on customers is what Palazzi and Starcher (2006) refer to as ‘the marketing concept’, an indicator for ethical behavior. The authors believe that environmental and social responsibility of organizations is valued by customers.

There is evidence that responsible organizations advantage by differentiating their products and services from competitors, thereby increasing turnover (Porter and Kramer, 2002). Also, citizenship can lead to an increase of corporate benefits by reducing the operational and transactional costs (King et al., 2002). Additionally, responsible organizations can attract new customers and generate positive word of mouth among all key stakeholders (Fombrun, 2000).
From an internal operations point of view, companies that employ sustainability activities can benefit from empowering and encouraging their staff’s commitment and productivity (Waddock and Graves, 1997). It is found that an increase in staff productivity is directly related to an increase in financial performance (Waddock and Graves, 1997). Adding up, environmentally responsible companies are more likely to recruit top talents and even forward their employees’ loyalty and engagement (Palazzi and Starcher, 2006; Turban and Greening, 1997). An organization with strong CSR policies signals a favorable image to potential employees (Turban and Greening, 1997). Recent literature has increasingly argued that corporate citizenship can have a strong influence on employee morale, motivation, commitment, loyalty and training (Weiser and Zadek, 2000; Orlitzky et al., 2003; Tsourvakas and Yfantidou, 2018). Consistently, a survey of 25,000 employees in 25 countries showed that 80 percent of people who worked for responsible firms felt greater motivation and loyalty towards their jobs (Environics International, 2001). In addition, a similar study of European employees showed that 90 percent of staff was more loyal to a responsible company, and 30 percent of them felt that they did not want to quit their job because of the important community involvement of their firm (Weiser and Zadek, 2000). Another survey of 1000 British employees, conducted by Business In The Community (BITC, 2003b), found that CSR oriented organizations are more likely to attract talented applicants and retain staff.

Undeniably, money is no longer the basic reason that activates staff motivation (Cave, 2002). Employees are also looking for ‘meaning in their work, [...] they want to know they are making a difference to the community in general’ (Cave, 2002, p. 32).

A company’s social performance creates an emotional attachment between employees and the firm because they feel that they are contributing to the community’s wellbeing (Cave, 2002; Kim et al., 2010). Likewise, there is a positive correlation between employees’ perceptions of CSR and organizational commitment, especially when the firm’s values and ethics are in accordance with employees’ personal values and norms (Peterson, 2004).

A method to endorse employee commitment to an organization is by behaving ethically (Jackson, 2004), as it appears to exist a psychological contract between the
company and the employees, where both parties have responsibilities and expectations. If the indicated expectations are not met or when employees feel that there is a disproportion in this relationship, then there is a contract violation (Jackson, 2004). According to the author, having an ethical code in place is not enough; it has to be uttered within the day-to-day routine of the firm (Jackson, 2004). By behaving ethically, managers can generate trust and fairness in the eyes of employees, which will lead to generating staff commitment to their company. Part of corporate social responsibility is that managers act ethically both with internal and external stakeholders. As a result, a psychological contract proposes that employees are expecting responsible and fair work practices.

It is important to point up that employees are also customers like all of us. Meaning, people who are employed by responsible companies may adopt a responsible way of living and fixate their purchase decisions on ethics and responsibility. It makes sense that if employees can pleasantly verify, from the inside of their own employer, that being responsible actually affects and values of the society, then it is likely that they will also encourage responsible consuming in their own everyday life.
2.3. Stakeholder versus Shareholder Theory

In academia there is a debate regarding stakeholder theory and shareholder theory (Rugimbana et al., 2008). According to shareholder theory a company is responsible exclusively to their shareholders (Cochran, 1994). Friedman (1999) is widely known around the world for his views of a firm being solely responsible to their shareholders. His belief is that a company should strive to return profits to shareholders and then they will decide whether or not they wish to act socially and donate to charities. He argues that no manager should decide on behalf of the shareholders on how to deal with their profits and how to distribute part of it among CSR activities.

Likewise, scholars think that if managers spend money on social causes it is like ‘stealing’ shareholder money (Philips, 2004). All in all, shareholder theory suggests that profit maximization should be the only concern for the company. Interestingly, Ruf et al. (1998) argue that spending corporate profits on social causes is justified only if it leads to higher economic value and returns.

On the other hand, there is the stakeholder theory which emerged as a way to strict shareholder theory (Winsdor, 2001). Stakeholder theory advocates that companies are accountable to a variety of different stakeholders (consumers, employees, shareholders, government, society, rivals, suppliers etc.), and they should always try to balance the interests of these different groups (Van Marrewijk, 2003). Heath and Norman (2004) describe shareholders as just one of the many claimants of the organisation.

The term ‘stakeholder’ arose as an opposition to the term ‘shareholder’ to clarify that there are other groups of people who actually have a ‘stake’ in a company (Goodpaster, 1991). Anyone who can affect or is affected by a company’s operations is a stakeholder.

Whilst investors have a grounded stake towards a company because they have invested their money; in the same way there are employees, consumers and society who have also invested their time, skills and knowledge in the company (Deck,
Furthermore, shareholders risk their money if a company fails the same as employees risk their job, pension and benefits (Post et al., 2002).

From an instrumental basis ‘stakeholder theory’ and ‘shareholder theory’ are completely consistent (Hemphill, 2004). According to both theories the purpose of the company is to create wealth and to pursue success, thus generating profits for everybody’s benefit (Hemphill, 2004).

In an attempt to make things clearer, there is a separation between ‘primary’ and ‘secondary’ stakeholders, according to importance (Clarkson, 1995). ‘Primary’ stakeholders are the ones without whose the company is unable to operate and ‘secondary’ stakeholders are the groups that are not directly influenced by the company and they are not vital for its survival (Clarkson, 1995). However, managers should pay attention to secondary stakeholder as they might affect the firm sooner or later (i.e. media).

Academia agrees that stakeholder theory is an essential part of CSR research as all stakeholder groups are affected by a company’s CSR initiatives (Zinkham and Carlson, 1995; Mathur and Mathur, 2000), although there is an issue regarding balancing different stakeholder interests when it comes to green actions management (Clark et al., 1994). In this study we will only focus on consumers as they are classified as ‘primary’ stakeholders.
2.4. An overview of CSR and Green Marketing in Greece

Types of CSR in relation to policies and practices differ among countries because of the variation in terms of culture, economic development, social systems, legal and political structure, and hopes (Hofstede, 1991; Wotruba, 1997). Although there is rich literature in countries where CSR is popular, there have been few attempts by academics to investigate countries that are at a primitive stage in terms of CSR (Skouloudis et al., 2011).

Scholars have positioned Greece in the category of countries where corporate citizenship is still in its infancy (Skoloudis et al., 2011; Metaxas and Tsavdaridou, 2010). As reported by the World Business Council for Sustainable Development (WBCSD), all Mediterranean countries belong to the same category, along with other states of Eastern Europe. Not until recently has the European Commission mobilized counties of Southern and Eastern Europe to adopt CSR initiatives in order to support a European agenda of CSR (European Commission, 2009).

Many authors have stated different reasons as to why it is hard to employ CSR activities in Greece. Metaxas and Tsavdaridou (2010) declare that the main obstacle for implementing CSR in Greece is the extensive corruption, ‘which is like an inherent privilege’ (p. 41). The authors add that the short-term profit orientation of Greek businesses and the fact that law on environmental protection is very often dishonoured are two additional barriers to implementing CSR in Greece. Moreover, there is under-representation of women in the Greek business community (Galanaki et al., 2009), and masculine companies are more unlikely to adopt CSR or other ethical policies (Ringov and Zollo, 2007). A framework of some internal and external determinants that influence the level of responsibility in Greek organizations is provided by Bichta (2003). The author notes that, internally, financial problems, organizational culture and the ethical viewpoints of senior management are crucial criteria for adopting CSR policies. External criteria are legal requirements, the ownership of the company (state owned or private), the national traditions, attainable technology and the realm of operational influence over any decisions on responsibility uptake (Bichta, 2003).
It is meaningful at this point to mention some findings related to responsibility in Greece derived from various surveys undertaken over recent years. According to Metaxas and Tsavdaridou (2010), 34 percent of CSR activities in the country were addressed as internal functions of the company (i.e. human resources), 60 percent of Greek organizations link their CSR initiatives with an increase in their financial performance, and 54 percent of managers argue that CSR often has a minimum cost. Moreover, the KPMG International Survey of Corporate Sustainability Reporting, published in 2018, showed that only 8 percent of Greek companies publish a sustainability report, although 10 percent of Greek organizations have set specific metrics of sustainability goals (KPMG, 2018). During 2016-2017 37.6 per cent more sustainability reports were published in Greece compared to 2012 (Fortune Greece, 2017). In total, 79 organisations published a sustainability report between 2016-2017, and those companies employ more than 150,000 employees with a turnover of around €56 billion (Fortune Greece, 2017). From a communication’s viewpoint, Greek firms’ unwillingness to report is a failure in promoting stakeholder engagement and delivering their corporate accountability to the general public (Skouloudis et al., 2011). The European Social Survey (2003) affirms that Greeks are suspicious of each other and it is difficult for them to believe in organizational ‘good wills’. The vast majority (99.5 percent) of organizations in Greece are small and medium businesses, which do not have the applicable resources or knowledge to take up CSR policies (Skouloudis et al., 2011). Lastly, since Greek managers are mostly oriented towards individual or rational interests, it is meaningless for them to support responsibility programmes (Stavroulakis, 2009).

As stated by the National and Kapodistrian University of Athens (Skouloudis, 2011), Greek organizations acknowledge only a limited number of benefits of CSR: a favorable reputation, an improvement in working conditions, an increase in sales, and an indirect link to financial performance. Greek managers can distinguish only two advantages of implementing CSR policies: cultivating employee job satisfaction and customer loyalty (Fafaliou et al., 2006).

Not surprisingly, encouragement towards CSR in Greece appeared only in 2000 when the Hellenic Network for CSR was established. The network, based in Athens, was
founded by 13 companies and now approximately 60 firms have enrolled. The objectives of the network are: to partner with companies and unions in order to share information; to raise awareness at businesses and public on environmental and social issues; to support joint social projects; to update and publicize information on the notion of CSR; and finally, to complete regular surveys in order to understand the needs of public opinion and thus renew its approach (Hellenic Network for CSR, 2009).

In 2002 the Greek Business Council for Sustainable Development (BSCD) was launched and its members signed a statement on continuous augmentation in economic, social and environmental performance. Expectantly, this institution facilitates Greek organizations to put CSR on a systematic place of their agenda.

It is pessimistically declared that the big economic deterioration that Greece experiences today has stricken donations or other philanthropic actions and will result in managers neglecting CSR (Skouloudis et al., 2011).

To conclude, ‘Greece having been a rural country for long still lacks business tradition and ethics’ (Stavroulakis, 2009, p. 149). Sustainability awareness is still in a very early stage in Greece, with the exception of a few large organizations –mostly multinational corporations.

2.5. Green advertising and consumer attitudes

Although research on consumers’ attitudes towards green and social advertising has concluded different results over time (Haytko and Matulich, 2008), there are still similarities among studies. Table 2 illustrates the main findings from research papers that deal with green advertising and consumers’ responses towards the ad and the brand.
<table>
<thead>
<tr>
<th>Authors and Date</th>
<th>Type of study and sample</th>
<th>Country</th>
<th>Main Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roe et al., 2001</td>
<td>Malls intercept surveys on 1,001 adults.</td>
<td>USA</td>
<td>Environmental labeling improves confidence to consumers.</td>
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<tr>
<td>Davis, 1993</td>
<td>Surveys mailed to 125 consumers.</td>
<td>USA</td>
<td>Substantive claims generate more favourable consumer responses.</td>
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<tr>
<td>Zhao and Shen, 1995</td>
<td>Surveys on 26,100 Chinese TV viewers.</td>
<td>China</td>
<td>Consumers pay more attention to informational content that entertaining</td>
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<tr>
<td>Xie and Kronrod, 2012</td>
<td>Four online experimental studies with manipulated ads shown to 132 adults.</td>
<td>USA</td>
<td>Explicit numeric claims in green advertising increase attention and</td>
</tr>
<tr>
<td>Iyer et al., 1994</td>
<td>Content analysis of 92 TV advertisements.</td>
<td>USA</td>
<td>Vague slogans and general environmental terms are considered as misleading.</td>
</tr>
<tr>
<td>Merten, 1993</td>
<td>Content analysis of 600 advertisements.</td>
<td>Germany</td>
<td>Use of landscapes with colour blue and green generate favourable consumer</td>
</tr>
<tr>
<td>Kareklas et al., 2012</td>
<td>Survey on 306 undergraduate business students.</td>
<td>USA</td>
<td>Prevention focused environmental appeals generate favourable attitudes for</td>
</tr>
<tr>
<td>Luchs et al., 2010</td>
<td>Experimental study with the use of Implicit Association Test (IAT) to demonstrate</td>
<td>USA</td>
<td>Self regulatory focus: a) in promotion focused groups (related to ideas,</td>
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<td></td>
<td>associations between concepts. 39 undergraduate students</td>
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<td>hopes and aspirations) customers are looking for a positive outcome, while</td>
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<td>b) in prevention focused groups (relates to responsibilities, duties and</td>
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<td></td>
<td></td>
<td></td>
<td>security) consumers are trying to eliminate negative outcomes.</td>
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<tr>
<td>Kahneman and Tvetsky, 1979</td>
<td>Observational study on 236 adults.</td>
<td>USA</td>
<td>Prospect Theory: Gains and losses are valued differently by consumers.</td>
</tr>
<tr>
<td>Royne et al., 2012</td>
<td>Experimental study with manipulated ads. 57 business school students.</td>
<td>USA</td>
<td>Green advertising with pro-environmental claims or personal benefits claims</td>
</tr>
<tr>
<td>Harwood et al., 2013</td>
<td>Eye tracking research to test lighting within retail stores. 19 women.</td>
<td>UK</td>
<td>Participants firstly looked at the products when walking around the</td>
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<td></td>
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<td>supermarket; most often they looked at neutral-coloured products located</td>
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<td></td>
<td></td>
<td></td>
<td>in a salient part of the scene.</td>
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<tr>
<td>Piqueras-Fiszman et al., 2013</td>
<td>Eye tracking research to measure consumer attitudes and PI towards manipulated green jam</td>
<td>Spain</td>
<td>Ridged packaging contributes to spread the gaze to different packaging</td>
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<tr>
<td></td>
<td>jars. 50 participants.</td>
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<td>elements. Participants’ attention was grabbed by the label first, then the</td>
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<td>logo and finally the information section.</td>
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Table 2: Research papers about green advertising and consumers’ responses towards the ad and the brand
Chapter III: Research Profile

3. Research Methodology

Marketing researchers widely employ either quantitative (i.e. surveys), or qualitative (i.e. interviews) research methods to analyze consumer behaviour. It has been identified that experimental research, more precisely lab experiment, has only recently gained researchers’ attention in the field of marketing. In this study a mix-match of methodologies has been employed to ensure the results’ validity and reliability: a lab experiment with an eye tracker combined with three types of surveys. In this chapter we explain the benefits of a lab experiment, the questionnaire design process and the ad manipulation techniques that we followed to design six different green advertisements.
3.1. Eye tracking

A very recent study by Horsley et al. (2014) agitates the basis of eye tracking research and research methodologies becoming progressively more widespread in many disciplines. The authors argue that eye tracking research recommends innovative ways of collecting data, structure research questions, and anticipate about how we view and understand the world. Eye tracking methodologies are favored in cross-disciplinary and multi-disciplinary studies because they assemble exceptionally detailed results (Wade and Tatler, 2011). Eye tracking is a human-computer interaction mechanism to analyze subjects’ eye movement when looking at an advertisement (Duchowski, 2007). Although this method is widely used in research laboratories, some universities also employ it to analyse human visual and attention processes regarding texts, images and general content (i.e. online games) (Duchowski, 2007).

Scientists generate new conclusions about the way the visual system collaborates with attention, cognition, and behaviour (Horsley et al., 2014). More and more eye tracking studies are persistently being circulated and new inventive ideas are shared among researchers (Horsley et al., 2014). Eye tracking helps advertisers and marketers understand the consumers’ internal processes and then tailor the information to change some aspects of the advertisement in order to be effective (Duchowski, 2007).

In this study we will concentrate on the Area of Interest (AOI) analysis which is the most common investigation in social and marketing applications (Horsley et al., 2014). AOI analysis involves the use of eye-tracking software to discover fixation time, frequency and return among the diverse items or parts. AOI analyses are ever more used to examine the differences between ranges of groups (Horsley et al., 2014). Similar to what our study aims to illustrate, the authors quote ‘AOI analysis is a key research procedure in use when researchers wish to examine and investigate the differences between novice and expert groups’ (Horsley et al., 2014, p. 180). Our study intends to address whether green and social ads are more appealing to green/ethical consumers (expert groups) juxtaposed non-green/unethical consumers
(novice groups). Comparisons between expert groups and beginners disclose rich acumens while it is easier for the researcher to understand the personality and visual structure of expertise (Horsley et al., 2014).

Eye tracking outputs consist of gaze plots, heat maps and fixation analyses. The latter enables scientists to examine the framework of attention and distraction in various visual examples (Horsley et al., 2014). On the other hand, gaze investigation serves as a new approach to understand eye movements. Although eye movement is both fast and dubious, eye tracker is able to generate reliable data through algorithms and significance analysis (Wade and Tatler, 2011).

To mention some research examples, Harwood and Jones (2013) used eye tracking to investigate consumers’ attention in retail environments. Li et al. also used eye tracking and AOI analysis in retail marketing when they tried to analyze brand motions (Horsley et al., 2014). Piqueras-Fiszman et al. (2013) used an eye tracker to measure consumer reactions towards different jam jars. Similarly, Lohse (1997) examined what it is that people pay attention to in Yellow Pages advertisements to find that people generally pay attention to colored, large ads that contain graphics and are placed near the beginning of the heading. Rosbergen et al. (1997) studied printed advertisements with an eye tracker to find that consumers’ attention is firstly captured by the headline, then by the picture, followed by the text and the packshot. Finally, Wedel and Pieters (2000) used eye tracker to test what elements of a successful magazine ad leads to memory retention for the advertised brands; they coupled eye tracking data with memory tasks for 88 consumers and they found that people who paid attention to the picture were able to recall the brand at a later stage, juxtaposed those who paid attention to the text.

Yet, we understand that in order for marketing professionals to build profitable propositions it is important to comprehend consumer behaviour while being exposed to different advertisements.
3.2. Ad manipulation and emotional appeals

Banerjee et al. (1995) describe the best practices for a green advertisement. The authors believe that a successful green advertisement should promote the green corporate image and household consumable goods. Specifically, they found that most firms promote their environmental actions by describing the organizational initiatives towards sustainability. Advertisements’ greenness is not deep but rather shallow and moderate. They also highlight that deep ads are mostly encouraged by environmental or non-profit organizations.

With regards to specific advertising practices, Banerjee et al. (1995) support that emotional appeals followed by general statements for the environmental protection, are mostly used by marketers. Additionally, fear and guilt are also used widely by advertisers as a mean to create a sense of threat among consumers, which will hopefully result in changing their stance and habits (Harvey and McCrohan, 1998; Brennan and Binney, 2008). On the other hand, humor and warmth are not popular in green advertising (Banerjee et al., 1995). Advertisers tend to associate consumer environmental behaviours with self-esteem in order to convince consumers that they as individuals are important, that their role in environmental protection is vital (Banerjee et al., 1995). Lastly, using images with female characters, families, or animals is more appealing to viewers and readers (Banerjee et al., 1995). Print environmental ads tend to focus on the organizational green actions while green TV commercials are likely to spot on the consumer actions, thus they are more emotional and issue-specific (Banerjee et al., 1995). In this study we are focused on print ads by employing different emotional appeals in order to test the participants’ attitudes to a variety of stimuli.

Academics support that consumers pay more attention to informational contents in advertisements rather than entertaining features (Zhao and Shen, 1995), whilst explicit numeric claim increase persuasiveness (Xue, 2014). In the same vein, evidence suggests that vague slogans or general terms are considered misleading by consumers (Kangun et al., 1991; Carlson et al., 1993; Iyer et al., 1994, Banerjee et al., 1995). Regarding green advertising, Do Paco and Raposo (2009) believe that advertisers should keep in mind that some environmental concerns are more closely
with economic factors than with environmental consciousness; thus, marketers should adapt their messages accordingly. Also, it is found that prevention focused environmental appeals generate more favourable attitudes compared to correction appeals (Kareklas et al., 2012). In this study we are testing five prevention focused green ads and one correction focused cause-related social advertisement. Lastly, Murphy (2010) found that environmental words with an akin meaning should be avoided in green advertising because people cannot understand the differences between terms that appear to be related, resulting in not paying attention to the advertisement (i.e. “energy efficiency”, “smart energy”, “energy conservation”).

The purpose of this study is to check whether negative sentiments (fear, guilt and disgust) of green products or CSR related ads (i.e. cause-related ads) influence consumer reactions such as their attention to the ad and their purchase intention. In accordance with bibliography, six different print ads were created by Christos Papathanasiou, a Graphic Designer at MMS Advertising Agency based in Thessaloniki, Greece. It was decided to advertise a low cost, unknown consumer nondurable ecological hand sanitizer for three reasons: 1) to avoid subjects’ involvement with the product as it is believed that increased involvement increases the perceived price of the product (Schuhwerk and Lefkoff-Hagius, 1995), 2) the initial intention was to use a product category that university students would be familiar with and probable to purchase, 3) hygiene products appear in green advertising very often which lends realism to the research (Iyer et al., 1993).

Regarding the product’s name, since it is found that uncommon names are considered as more exciting and atypical product names stimulate elaboration more than specific names, (Molaviya and Meyers-Levy, 1998; Miller and Khan, 2002), we decided to go for an unusual name. Hence, we named the hand sanitizer ‘Aloe Vera Gel’ which we consider to be an ambiguous name that, nevertheless, illustrates the products’ organic attributes. Regarding packaging and labeling, we chose a typical pocket size transparent bottle hand sanitizer with a label quoting ‘Fruit of the Earth’. There are also some more details on the labeling: ‘100% PURE GEL’, ‘No colour added’, ‘Contains no alcohol’.

Pocket size hand sanitizers are extremely popular for at least a decade and they serve our purpose which is to examine a product that is somehow related to hygiene
and healthy leaving. People who buy hand sanitizers are those who want to keep their hands clean throughout the day when access to a water tub is not available. Also, since advertisements are context specific, for example, a shampoo is better to have a gentle effect whereas people need durable cars (Luchs et al., 2010), a hand sanitizer falls into the category of the products that people want to have a gentle effect while protecting them from bacteria. Lastly, it is supported that consumers do not consider environmental gains as riskier when they are about to buy a green product (Royn et al., 2012), thus we believe that a sustainably produced hand sanitizer will not be considered as riskier as opposed to a conventional one.

The following sections will explain the six different elements of our study and the rationale behind the creation of each advertisement.

3.2.1. Fear

Fear has been described as an emotion that carries negative elements escorted “by high level of arousal” (Witte and Mike, 2000, p. 591). Wiite (1992) believes that while fear is an emotion and threat is cognition, they are confusingly related to a degree that the higher the threat that is presented, the greater the fear that people will feel.

Academia supports that fear should be accompanied by the appropriate message appeal in order for the viewer to understand the direct gain of their action (Brennan and Binney, 2008). In other words, evoking fear to the viewers is a tool to actually tell them that if they want to avoid the negative costs that are being advertised, they need to behave in a particular way (Atkin, 2001). Fear is generally used in social marketing to encourage people to conform to social standards (Bearden and Rose, 1990). The aim is to create an emotional imbalance which is then abolished by providing salvation to the viewers (through purchasing the advertised product or service) (Brennan and Binney, 2008).

Fear has been extensively researched by academics for over half a century regarding the associated threat appeals (Ray and Wilkie, 1970; Rotfeld, 1988; Latour and Rotfeld, 1997; Chandy et al., 2001; Hastings et al., 2004). Even the intensity of fear appeals has been researched (Moore and Harris, 1996). Leventhal (1970) provides a theory, named Parallel Process Model, according to which fear is used as an emotion
and then there is a cognitive danger control response by people who need to control the threat that is generated, not the fear itself. According to Benk and Frankel’s (1981) threat control theory, a successful fear appeal should include both threat and threat control. By this the authors mean that the subjects must be provided with the motivation to protect themselves. The fear appeal ad that was created for this study is based on these two theories.

Additionally, Laroche et al. (2001) have categorised fear appeals into physical and social where physical are related to threats against the body and social appeals relate to social approval. In this study physical fear appeals have been used. Taking into account Witte’s (1992) view that threat and fear are strongly related, the aim of this study is to test whether subjects will experience fear by the threat of being dirty which may lead to getting sick by not washing their hands. A fretful and fearful picture (originally derived from Dettol’s award winning print ad) is presented and then both fear and salvation are provided in the text message (Figure 2). Yet, since we are advertising an ecological hand sanitizer, it is also mentioned in the ‘salvation’ part of the text that no water waste is needed. The text is in Greek, the mother tongue of the subjects, and it would be translated as ‘Do you know whose hands you’re holding? Aloe Vera gel sanitizer kills 99.99% of bacteria without using any water’.
Figure 2: Physical fear appeals in ad manipulation
3.2.2. Guilt

There are several studies regarding guilt appeals (Burnett and Lunsford, 1994; Huhmann and Brotherton, 1997; Abe, 2004; Cotte et al., 2005) and the self-persuasive effects that they generate. Some authors, though, have found that guilt leads to feeling shame which then leads to anger and consumer inaction in an effort to discomfort shame (Coulter and Pinto, 1995; Bennett, 1998; Abe, 2004). Bennett suggests that a successful advertisement based on guilt appeals should abolish any shame-related properties.

Academics believe that emotional appeals are an effective tool in green advertising because they facilitate message attention in today’s complex media environment (Dickinson and Holmes, 2008; Chang, 2012). More specifically, guilt appeals have been widely examined in social and green marketing (Huhmann and Brotherton, 1997; Benentt, 1998; Agrawal and Duhacheck, 2010; Brennan and Binney, 2010; Chang, 2012). The reason why guilt is so extensively used in green advertising is because people have a propensity to feel guilt of their every harmful day actions that endanger our world even more (Kotchen, 2009). Indeed, using the words ‘green’ and ‘guilt’ in Google returned more than 56 million results. Academics, though, think that guilt appeals’ effectiveness highly depends on people’s environmental consciousness (Chang, 2012).

The dissonance theory (Festinger, 1957) provides a theoretical overview to comprehend guilt-caused human behaviour. According to the theory, the individual who is confronted with guilt routinely needs to maintain consistency, thus they are trying to diminish the level of guilt by changing objectionable behaviours. In accordance with dissonance theory, several recent studies proved guilt appeals effectiveness in green advertising by changing individual’s attention, attitude towards certain products and brands (Basil et al., 2006; Hibbert et al., 2007; Chang, 2012).

Advertisers use guilt appeals to awaken pro-environmental consumer behaviour and promote a green lifestyle by purchasing the advertised green product (Chang, 2012). Taking into account the dissonance theory, our aim is to create an advertisement with guilt appeals, accompanied by a message that provides a solution to the
advertised issue and also a way to eliminate the level of guilt. The ad that has been created is illustrated in Figure 3. People mechanically know that washing hands many times throughout the day is really important to keep them both clean and healthy. Most of people also know that water consumption has been so rapidly increased that many nations, especially in Africa, literally lack of water. Thus, due to the fact that hand sanitizers -which are well known for keeping hands clean and healthy- do not require any water use, we created an ad that represents a powerful image illustrating a basin with running water on the right hand side and a label on top of it saying ‘37% less water’. The label illustrates what percentage of water waste is used just to wash our hands. On the left hand side the image was edited to reveal the water pipes from the inside of the wall and create a visual illusion. The water pipes route begins from the washbasin and finish to a point where the wall has the form of a human being. Additionally, this part of the wall is a bit darker than the rest to highlight the need of water in African countries. The picture is originally derived from an award winning ad of a shampoo product. The Aloe Vera hand sanitizer is well presented under the washbasin and the water label. Lastly, there is a message above the human look-like water pipes that says ‘Think how much it would help to use less water’. In accordance with literature, we used a shocking image to generate a guilt appeal and we also provided a text clarification to maintain cognitive consistency and encourage viewers to change their behaviour.
Figure 3: Guilt appeal in ad manipulation
3.2.3. Disgust

Disgust is paced by Izard (1971) as a primary emotion among other basic emotions. Academics support that, surprisingly, there is lack of studies regarding disgust as an emotion in marketing (Shimp and Stuart, 2013). Similarly, Nabi (1999) notes academia’s little attempt to comprehend disgust’s role in persuasion. He also subcategorised disgust in two elements. The author suggests that the expression ‘grossed out’ confines the theoretical notion of disgust, whereas the phrase ‘disgust’ refers to the collective meanings of disgust and anger. A study by Lerner et al. (2002) showed that people who owned objects that were described as disgusting sold them in lower prices. Likewise, they would pay a lot less to buy a product that was presented in a disgusting way (Lerner et al., 2002).

Richins (1997) thinks that disgust was a relevant emotion regarding her subjects’ consumption experiences. Watson et al. (1988), though, believe that disgust is characterized by subjective distress, while Miller (1997) reports that in order for someone to feel disgust it has to involve all the senses.

In accordance with Shimp and Stuart’s (2013) findings, we propose that disgust mediates the effects of advertising. The authors claim that if a negative emotion like disgust is accompanied with positive associations like freshness, it is probable to lead in advertising success and influence consumer purchase intentions (Shimp and Stuart, 2013). Although their research was related to fast food ads, they also proved that consumers who had viewed advertisements related to disgust were able to recall those ads at a later stage.

In this study our intention is to present disgust in a way that could be combined with hand sanitizers. Hands might be dirty without the dirt being visible. For example, human hands typically carry thousands of bacteria even a few minutes after we have washed our hands. It is obvious that bacteria are not visible, although we are all aware of their existence. Therefore, we found an original Dettol award-winning ad that actually visualises bacteria on human hands (Figure 4). To make it even more disgusting, those dirty hands are presented to try to touch a baby. Ellen et al. (1991) introduced the concept of the sick baby / well baby in environmental marketing. The
authors suggest that ‘well baby’ appeals are more successful when trying to promote environmentally friendly actions. Obermiller (1995) tested both the ‘sick baby’ and ‘well baby’ concepts to conclude that the success of these appeals depends on the issue or the advertised product. In our manipulated ads we are trying to juxtapose disgust with affection as a way to present that the former may lead to the absence of the later. The Aloe Vera hand sanitizer is presented along with a text saying ‘Your ally in germs. For you and the ones around you’. To conclude, the text is encouraging the viewers to think of the product as an ally to abolish the disgusting image of the dirty hands and also protect the ‘well baby’ from bacteria in a caring and environmentally friendly way.

Figure 4: Disgust feeling in ad manipulation
3.2.4. Eco-labels and pro-environmental facts claims

Eco-labels have been broadly used for the last two decades as a means to ‘provide consumers with information about the environmental quality of individual products’ (Thogersen et al., 2010, p. 1787). The European Commission (2007) believes that eco-labels increase transparency and consumer trust; thus EC is actively encouraging the European member states to create legal frameworks for all kinds of ecolabelling and it also largely funds organisations that adopt eco friendly processes.

Blue Angel was the first eco-label, launched in Germany in 1977 (Thogersen et al., 2010). Since then there are hundreds of new eco-labels based on location, type of product or service, degree of greenness and nature of ecological value. For example, there are eco-labels about organic food, recycling, water use, waste management, liquids’ Ph, toxic free, animal cruelty free, vegan, parabens free etc. Academics note that consumers are usually confused with the countless different eco labelling schemes (Juwaheer et al., 2012). Bogdan (2010) states that the green certification system has so widely expanded that there are over 400 different eco-labels around the globe.

On the other hand, a study by Royne et al. (2012) found that regarding green advertising, the type of message appeal is really important. They found that promoting pro environmental claims was more appealing to consumers who also reported high purchase intention. It was also found that the green certification system has enhanced people’s awareness of green products (Royne et al., 2012). A similar study by Bogdan (2010) provides evidence that people trust eco-labels when accompanied with messages regarding environmental benefits. Likewise, Pickett et al., (1995) think that if the product’s eco attributes are not well communicated, they will eventually be converted into unsuccessful goods.

For the fourth manipulated advertisement we decided to combine these two elements: eco labels and pro environmental facts (Figure 5). An image of natural environment was selected as it is believed that it leads to significant advertising effects (Hartmann and Ibanez, 2009). Then, on the right hand side there is the Aloe Vera hand sanitizer and five different eco-labels that accompany the product. The first eco-label is related to hypoallergenic attributes, the second represents the
parabens (toxic ingredient) free certification, the third embodies the Ph balance certification, the fourth a general organic products (related to Aloe Vera) eco-label, and the last one is the European Union’s formal eco-label. Literature supports that Europeans’ awareness regarding the EU eco-label has significantly increased the last years to 29 per cent (Juwaheer et al., 2012). On the left hand side there is a short text which highlights the product’s characteristics and pro environmental facts. The text is in Greek and it is translated in English as ‘100% natural product with Aloe Vera. Dermatological tested with neutral Ph. Kills 99.99% of bacteria. Softly flavoured without alcohol or parabens’. The text corresponds to all eco-labels that have been chosen to be advertised.

Figure 5: Eco-labels and pro environmental fact claims in ad manipulation
3.2.5. Eco-labels and personal beliefs claims

Similar to the previous manipulated ad, the fifth one promotes green certification. The difference lies in the second part where, according to literature, personal benefits claims increase consumers’ perception of greenness and leads to higher purchase intentions (Royne et al., 2012). The main idea is that people tend to be confident with message appeals that promote their personal gains from an eco-product apart for any environmental gain associated (Royne et al., 2012).

For the fifth manipulated ad the image that has been chosen demonstrates human hands (Figure 6). Firstly, an eye tracker study by Ullman et al. (2012) supports that people tend to pay attention to hands in images. Since the product is a hand sanitizer we decided to use an image of human hands in order to enhance subjects’ correlations to the product and also promote hygiene and cleanliness. Secondly, we only used the EU eco-label and none of the other four green certifications. Given that this ad is about promoting personal benefits, it is not our intention to confuse people with green certifications related to the environment. The EU eco label is very general and deals with the environmentally friendly practice that was adopted by the brand during the production process (European Commission, 2005). The text was changed in order to comply with Royne et al.’s (2012) view that the message appeal should be oriented to the consumers’ personal gains. The message is in Greek and it is translated in English as ‘A healthy way for cleanliness without the use of soap and water. Softly flavoured, to offer a sense of freshness. Leaves the skin soft. No sticking, dries quickly’. This copy illustrates what people will gain from the product apart from it being toxic free. The key message is that purchasing this product will keep the consumers’ hands healthy and clean without wasting water or using soap; consumers’ hands will feel fresh, skin will be soft while the product dries quickly and will not stick. Some hand sanitizer brands are not preferred by consumers because they leave hands sticking or they smell like alcohol. Thus, the above mentioned characteristics differentiate the product from others.
Figure 6: Eco-labels and personal benefits claims in ad manipulation
3.2.6. CSR advertisement (cause-related marketing)

The last advertisement is CSR related. Academics call this field cause-related marketing because the advertisement is about advertising a cause that is not necessarily related to the product (Barone et al., 2007). The notion of cause-related marketing is about promoting a charity through increasing sales (Grewal et al., 2004). The rise of cause-related marketing strategies demonstrates the organisations’ attempts to integrate CSR into all their corporate activities (Barone et al., 2007). Lastly, academics state that a negative feeling in advertising creates empathy, which increases the possibility of helping others (Bagozzi and Moore, 1994; Vitaglione and Barnetti, 2003).

A cause-related advertisement does not promote any of the products’ characteristics. It is purely focused on promoting the charity and linking the product to the advertised charitable trust. Brown and Dacin (1997) note that organisations choose to sponsor charities that are unrelated to the advertised product. Likewise, Hoeffler and Keller (2002) state that companies need to choose charities that resonate with customers. For this study we chose to advertise UNICEF, a charity that almost everybody around the world is aware of, and provides humanitarian aid to children in developing countries. Following the literature, the manipulated ad displays no product characteristic. The product is situated on the right hand side while on the left hand side there is a black girl smiling. The copy at the top says ‘5% of sales will support UNICEF’ to make clear the connection between UNICEF and the advertised product. There is an additional text in capital letters and bigger font size which works as a headline, saying ‘Grant a smile’. The reasoning behind this short text is that people who will buy the product will help UNICEF spread smiles around children and make their lives a little bit happier (Figure 7). UNICEF’s logo is also presented next to the product. The picture is derived from an original ad of Pamper’s which collaborated with UNICEF.
Figure 7: Cause-related manipulated ad
3.3. Derivation of Hypotheses

Eye tracking is offering an opportunity to gather valuable data and form multiple hypotheses. Based on the aforesaid literature review, ten main hypotheses derive. A diagram (Figure 8) is provided below to better understand the multiple connections between the variables. Then, hypotheses are explained separately.

![Diagram](image)

<table>
<thead>
<tr>
<th>Independent variables</th>
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<tr>
<td>Fear</td>
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<tr>
<td>Guilt</td>
</tr>
<tr>
<td>Disgust</td>
</tr>
<tr>
<td>Eco-labels and environmental facts</td>
</tr>
<tr>
<td>Eco-labels and personal benefits</td>
</tr>
<tr>
<td>Cause related ad</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Moderators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proximity consciousness</td>
</tr>
<tr>
<td>Ethical consumption</td>
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</table>

Figure 8: Multiple connections between the variables

Academics believe that negative feelings result in positive responses towards the ad (Bennett, 1998; Brennan and Binney, 2008). Though, Bennett believes that shame-inducing characteristics have to be removed in order to develop positive attitudes among consumers. We are not sure whether we managed to eliminate any shame related features because of the nature of the ads. Hence, the following hypothesis arises:

*Hypothesis 1a (H1a): There will be no difference in attitude towards the ad for the first three ads that are manipulated with negative emotions (fear, guilt and disgust), with a positive attitude towards all three ads.*
Tajfel and Tuner (1985) suggest that values and ethical stance is associated with gender. Likewise, Ibrahim and Angelidis (1994) report that while men are acknowledged to have instrumental concerns; women are keener to discretionary behaviour. In line with Carroll (1979), we believe that social responsibility and philanthropy are viewed more favourably by women than men. For example, Roberts on a similar research (1993) found that firms which give money to charities make a greater impression on females than on males. There is a theory given by Smith et al., (2001) to explain this gender difference with regards to CSR and green lifestyle. The authors report that because women may often experience gender discrimination or injustice, they become more sensitive in ethical behaviour (Smith et al., 2001). Consequently, we also hypothesize that all the three ads that include negative feelings will have a greater appeal on women than men. Equally, the cause-related ad will have a greater appeal on women and compared to men. In the same vein, women will report higher purchase intention when looking at the cause-related ad compared to the rest of the advertisements.

**Hypothesis 1b (H1b):** Women will report more positive attitude towards all the three ads that include negative feelings.

**Hypothesis 2a (H2a):** The cause related advertisement will have a greater appeal on women.

**Hypothesis 2b (H2b):** Women will report higher purchase intention for the advertised product when looking at the cause-related advertisement compared to the other five adverts.

Regarding demographics, Knight (2006) has found that young people are more interested in CSR, green lifestyle or working for a responsible company. So, we hypothesize that cause-related advertisements will have a greater appeal on young people who will also account for higher purchase intentions.

**Hypothesis 3a (H3a):** Young people will report higher attention towards the cause-related advertisement.

**Hypothesis 3b (H3b):** Young people will report higher purchase intention for the advertised product when looking at the cause-related advertisement.
Taking into account the *Prospect Theory* introduced by Kahneman and Tversky (1979), which highlights that people distinguish advertising messages in terms of gains and losses, we move to the next hypothesis. Ottman (1998) suggests that green products are viewed by consumers as of inferior quality. On the other hand, a study by Brennan and Binney (2008) reports that consumers prefer advertising messages with environmental facts despite environmental skepticism while Royne et al. (2012) think that green advertisements which promote personal gains are more likeable. Concluding, we assume that consumers’ attitude towards the environmental facts ad will not differ to the personal gains appeal. Nevertheless, we assume that purchase intention will be higher when participants are looking at the personal gains ad compared to the environmental-gains related ad.

*Hypothesis 4a (H4a): There will be no difference in participants’ attitude towards the advertisement for the ad that is focused on environmental gains (Ad4) compared to the one that is focused on personal gains (Ad5).*

*Hypothesis 4b (H4b): There will higher purchase intention for the ad that is focused on personal gains (Ad5) compared to the one that is focused on environmental gains (Ad4).*

On the other hand, literature supports that people who identify themselves as ethical consumers generally have positive attitudes towards green or social ads (Chan, 2001; Royne et al., 2012). Scholars believe that people with adequate environmental knowledge are more likely to purchase eco-friendly products or view these products positively (Werner and Alvensleben, 2011). Laroche et al. (2001) have linked environmental knowledge with responsible behaviour and green lifestyle. As a consequence, we hypothesize that the ethical consumption moderator will have a great impact on how consumers will react to all our advertisements. So, we hypothesize that all six advertisements, regardless of their appeal, will generate a positive attitude towards the ad for ethical consumers and higher purchase intention.

*Hypothesis 5 (H5): There will be positive attitude towards all six advertisements for green consumers compared to non green consumers.*
Hypothesis 6 (H6): Green consumers will report higher purchase intention for all six ads compared to non green consumers.

The next section will explain the rationale behind the survey design in order to test the aforesaid hypotheses.
3.4. Questionnaire Design

Read and Miller (1998) note that a survey and a good questionnaire should both ensure that research objectives are met, valid and reliable data are obtained by respondents, respondents’ participation is promoted, and participants are able to understand what it is required in order to answer all the questions. Malhotra et al. (2007) highlight the importance of the questionnaire structure, wording and layout in order to overcome the respondents’ failure or refusal to participate in the survey.

In accordance with Malhotra et al. (2007), the questionnaire begins with some information about the research in general, directions to guide the respondents and pass up mistakes and a statement regarding who will have access to the data gathered. The respondents were also verbally informed about the questionnaire’s content and the fact that all data and results will be used and shown only to students and academic staff. In the surveys there were statements with which participants had to decide whether they agreed or not (by selecting one of the 5-point Likert type scale). Maintenance of anonymity and data confidentiality was also ensured (Malhorta et al., 2007). The respondents were informed of their right to withdraw at any time should they feel uncomfortable with the process.

**Demographic characteristics**

After the instructions part on the questionnaire, the participants were asked to answer six questions regarding demographic characteristics. In the first question they had to indicate their gender. Then, they had to choose their age from one of the three age groups provided: 18-30 years old, 31-45 years old, and over 45 years old. The third question was about the respondents’ highest education qualification. We provided seven categories for them to choose from, derived from the Greek educational system: primary education, gymnasium, lyceum, technical or college degree, university first degree, master’s degree and PhD. Also, the respondents were asked to indicate their field of study from the following options: Engineering, Health Professions, Business Administration, Economics, Humanities, and Applied Sciences. Then, the respondents were asked whether they are married or single and whether
they had any children. Lastly, since we also wanted to know the work responsibilities of each respondent, we asked them to indicate their employment status according to four specified categories: manager with employees reporting to you, manager with no employees reporting to you, employee with no managerial responsibilities, unemployed (Appendix 1).

**Self-identification Survey**

Apart from the respondents’ demographic characteristic and their views of the manipulated ads, we also wanted to check their self-identification as ethical/green/sustainable consumers, as this will help us group the experiment’s findings. When people make purchase decisions they basically engage into a trade-off (Freestone and McGoldrick, 2008). For example, if a customer wants to buy an organic banana they may trade off the potential high cost of the organic banana as opposed to the conventional banana. So, the authors conclude that purchase decisions are based on our values and needs and if we want to measure ethical consumption we need to measure consumers’ ethical values.

The four structured questions and scales (Figure 9) were derived from a research by Tsalikis and Seaton (2006) published in the Journal of Business Ethics. The Business Ethics Index (BEI) provides an overall picture of consumer sentiments about a company’s ethical/sustainable behaviour. As noted by the authors, consumers who reported high levels of ethical sentiment towards businesses should be considered as moral/ethical/green/sustainable consumers because they seem to carefully choose the products or services they use (Tsalikis and Seaton, 2006). The scale consists of the following four items: 1) Based on your own experiences as a consumer in the past year, businesses you dealt with generally behaved (five answers are provided from very unethically to very ethically), 2) Based on what you heard from others or the media in the past year, businesses behaved (five answers are provided from very unethically to very ethically), 3) Based on what your own experiences as a customer last year, do you expect businesses in the coming year to behave? (three answers are provided from more unethically to more ethically), 4) Based on what you heard from other or the media last year, do you expect
businesses in the coming year to behave? Three options are provided from more unethically to more ethically. Questions 1 and 3 ask the respondents to evaluate their own experiences, whilst questions 2 and 4 seek the respondents’ expectations as to companies’ future ethical behavior (Appendix 3).

**Personal/Past**
Q1. Based on your own experiences as a consumer in the past year, businesses you dealt with generally behaved:

<table>
<thead>
<tr>
<th>Very unethically</th>
<th>Somewhat unethically</th>
<th>Neither nor</th>
<th>Somewhat ethically</th>
<th>Very ethically</th>
</tr>
</thead>
</table>

Q2. Based on what you heard from others or the media in the past year, businesses behaved:

<table>
<thead>
<tr>
<th>Very unethically</th>
<th>Somewhat unethically</th>
<th>Neither nor</th>
<th>Somewhat ethically</th>
<th>Very ethically</th>
</tr>
</thead>
</table>

**Personal/Future**
Q3. Based on what your own experiences as a customer last year, do you expect businesses in the coming year to behave:

<table>
<thead>
<tr>
<th>More unethically</th>
<th>About the same</th>
<th>More ethically</th>
</tr>
</thead>
</table>

Q4. Based on what you heard from other or the media last year, do you expect businesses in the coming year to behave:

<table>
<thead>
<tr>
<th>More unethically</th>
<th>About the same</th>
<th>More ethically</th>
</tr>
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</table>

Figure 9: Business Ethics Index

**Differential Emotions Scale**

The second questionnaire is related to consumer feelings towards the manipulated ads and it is derived from Izard’s seven point Differential Emotions Scale (1977) as extracted from Derbaix and Vanhamme’s (2003) study. The scale (Appendix 2) includes seven variables of positive and negative feelings with three items each. Fear, disgust and anger (a result of guilt according to the literature) are of interest for this study and they are all included. Additional items consist of surprise, enjoyment, distress, and contempt.

**Purchase intention survey**

In order to measure the participants’ purchase intention we used Moon et al.’s (2008) scale which includes the following four items (Appendix 4): 1) I will purchase this product, 2) Given a choice, my friends will choose this product, 3) There is a
strong likelihood that I will buy this product, 4) I would like to recommend this product to my friends. The items were measured on a seven point frequency scale from 1) Do not agree at all to 7) Agree completely.

**Attitude towards the Ad survey**

Literature supports that ad likeability and attention to the ad are two concept that represent the same construct (DeCock and DePelsmacker, 2000; Zhang, 1996; Du Plessis and Foster, 2000). To measure the subjects’ attitude towards the ad we used Biel and Bridgewater’s scale (1990) which consists of the following five items (Appendix 5): I find this ad convincing; I find this ad intelligent; I believe this ad shows the product’s qualities; This ad is pleasant to look at; This ad is informative. A Likert’s five-point scale was provided ranging from 1) very likely to 5) very unlikely.
Chapter IV: Results Analysis

4.1. Sampling frame and demographic characteristics

There is rich literature regarding the appropriate sample size for an eye tracking experiment in order for the findings to be considered valid and reliable. For example, recently Li et al. recruited 19 women to perform a mobile eye tracking experiment to test lighting within retail stores in the UK (Li et al., in Horsley et al., 2014). Piqueras-Fiszman et al. (2013) used 50 people in an eye tracking lab experiment to measure consumer attitude towards packaging and their purchase intention for sixteen different manipulated jam jar packaging versions. Pieters et al. (1999) recruited 62 random consumers to test their visual attention towards printed advertisements in an eye tracking lab environment. Equally, Lohse (1997) used 32 university students and staff to perform an eye tracking experiment to test their attitude towards advertisements in Yellow Pages. Apart from the eye tracking related research papers, there is literature to support that a sample size around 40 to 50 subjects is sufficient when conducting an experimental study with manipulated ads (Royne et al., 2012; Luchs et al., 2010).

In this study we recruited 58 university students of all ages, from different academic fields and educational level. Regarding the recruiting process, an advertisement was placed in various Facebook university pages with an Eventsbride link for the subjects to book their place at the lab experiment by selecting their preferred date and time. Attendance was incentivised with a 30€ H&M voucher prize draw. Subjects were told in advance that the experiment would only last 10 to 15 minutes. The lab experiment took place within three days and we managed to utilise around twenty participants per day. Given the aforementioned literature, we consider the sample size for this research both adequate and sufficient.

Participants were told that this is a study on the attitudes of university students and/or graduates towards advertisements and other issues. They were assigned to view six different advertisements of the same product for a time period of six seconds each. It is suggested that an effective advertisement is being displayed for six seconds or less (Boerman et al., 2012a). After viewing each of the six
advertisements subjects were asked to complete an online questionnaire at their own pace. The survey was automatically displayed on their screen after the six seconds of ad viewing had passed. Literature supports that a disclosure which is displayed for six seconds in more effective and consumers normally spend six seconds or less on viewing a successful ad (Boerman et al., 2012a). There was no time restriction in the time spent to answer the three surveys. The questionnaire was incorporated into the eye tracker so that participants would not have to switch screens. Demographics and the Business Ethics Scale were also included. Eye tracking data show that the entire task took approximately 14 minutes for each participant.

Considering that evidence reveals a coherent domination of women in the purchase of hygiene products (Martinez and Polo, 1999; Ureña et al., 2008), this research focused more on females than males. Thus, 40 subjects were women (69%) and 18 were men (31%) (Table 3).

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>18</td>
<td>31%</td>
</tr>
<tr>
<td>Female</td>
<td>40</td>
<td>69%</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 3: Frequencies for Gender

Regarding the participants’ age, 50% were between 18-30 years old, 27.6% were from 31 to 25 years old and 22.4% were over 45 years old (Table 4).

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-30 yrs</td>
<td>29</td>
<td>50%</td>
</tr>
<tr>
<td>31-45 yrs</td>
<td>16</td>
<td>27.6%</td>
</tr>
<tr>
<td>Over 45 yrs</td>
<td>13</td>
<td>22.4%</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 4: Frequencies for Age
Moreover, since the study was based on students and/or recent graduates, we were also interested in the participants' highest degree along with their field of study. Over half of the subjects had a Bachelor’s degree (55.2%), 24.1% had obtained a Master’s degree, 17.2% had a PhD and 3.4% were of College education (Table 5).

<table>
<thead>
<tr>
<th>Education Qualifications</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEK/College</td>
<td>2</td>
<td>3.4%</td>
</tr>
<tr>
<td>Bachelor (TEI-AEI)</td>
<td>32</td>
<td>55.2%</td>
</tr>
<tr>
<td>Master’s</td>
<td>14</td>
<td>24.1%</td>
</tr>
<tr>
<td>PhD</td>
<td>10</td>
<td>17.2%</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 5: Frequencies for Degree Level

Regarding the participants’ field of study (Table 6), 32.8% of the subjects have studied or are currently studying Humanities (e.g. Modern languages, Linguistics), 24.1% are into Business Administration studies, 22.4% are Applied Sciences students or graduates (e.g. Geology, Biology), 8.6% are Engineering students, 8.6% of the participants are into Economics and 3.4% of the subjects are related to Health Professions (e.g. Doctors, Dentists).

<table>
<thead>
<tr>
<th>Field of study</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>5</td>
<td>8.6%</td>
</tr>
<tr>
<td>Humanities</td>
<td>19</td>
<td>32.8%</td>
</tr>
<tr>
<td>Economics</td>
<td>5</td>
<td>8.6%</td>
</tr>
<tr>
<td>Business Administration</td>
<td>14</td>
<td>24.1%</td>
</tr>
<tr>
<td>Applied Sciences</td>
<td>13</td>
<td>22.4%</td>
</tr>
<tr>
<td>Health Professions</td>
<td>2</td>
<td>3.4%</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 6: Frequencies for Field of study
4.2. Reliability and Validity Test Results

A pretest lab experiment was conducted a few months before the actual experiment took place. Pretest participants were twelve university students (seven women and five men). In the pretest, participants were asked to view all six advertisements and answer the online surveys (attitude towards the ad and purchase intention surveys) right after viewing each advertisement. Both the ads and the surveys were identical to the ads used in the main study. The pretest provided satisfactory results in terms of the reliability of the measures, which refers to the degree to which the items that make up the scale ‘hang together’ (Pallant, 2007). The most commonly used indicator for internal consistency is Cronbach’s alpha coefficient (Pallant, 2007). The Cronbach’s alpha for the Business Ethics Index scale was .611, for the attitude towards the ad scale it was .765 and for the purchase intention measure it was .891. Therefore, we moved on to the main study after recruiting 58 different participants.

During the main study we had to make sure once again if the scales were reliable for our new sample. Cronbach’s alpha coefficient was tested for each one of the scales again since we now had a much higher sample size. Although a Cronbach’s alpha above .7 is preferable, it is suggested that a Cronbach’s alpha more than .5 is sufficient for short scales with less than ten items (Pallant, 2007; DeVellis, 2003). According to Tsalikis and Seaton (2006), the Business Ethics Index scale has good internal consistency with a Cronbach alpha coefficient reported of .69. Similarly, in the current study, the Cronbach alpha coefficient was .625.

Likewise, Biel and Bridgwarer’s (1990) Attitude towards the Ad scale’s internal consistency is reported of .79. In this study, the Cronbach’s alpha coefficient was .794.

Lastly, according to Moon et al. (2008), the Purchase Intention scale’s internal consistency is reported of .86. Equally, the Cronbach’s alpha coefficient for this scale in our study was .902.
4.3. Data Analysis

4.3.1. Survey results

Results for negative emotions

Prior to testing the research proposition, usual checks for reliability were conducted. All multi-items variables used had highly acceptable Cronbach alpha of 0.75. Descriptive analysis of the data collected for negative emotions revealed that the variability in the scores of negative emotions (i.e. items for anger, fear, contempt, distress, guilt and disgust) was very low. A one sample t test was used to determine the emotions that were reported by the participants for the first advertisement which was the fear inducing manipulated ad ($M = 13.19, SD = 3.252$). The difference was found to be statistically significant, $t (57) = 30.886, p < .001$. A mean of 13.19 is between the items afraid (13) and scared (14), which both lie under the fear variable. The below scatterplot shows that the data are normally distributed with an even spread of points above and below the horizontal line (Figure 10). The graph further confirms that the sample data are normally distributed for the emotions scale on the first advertisement (fear).
Regarding the second negative emotions advertisements (guilt), a one sample t test was used to determine the emotions that were reported by the participants for the second advertisement, which was the guilt inducing manipulated ad ($M = 8.362$, $SD = 1.43$, $N = 58$). The difference was found to be statistically significant, $t (57) = 44.375$, $p < .001$. A mean of 8.362 is between the items downhearted (8) and discouraged (9), which are both situated under the distress variable. Similar to the previous advertisement, the scatterplot for ad 2 shows that the data are normally distributed with an even spread of points above and below the horizontal line (Figure 11). The graph further confirms that the sample data are normally distributed for the emotions scale on the second manipulated advertisement (guilt).
As to the third negative emotions advertisements (disgust), a one sample t test was used to determine the emotions that were reported by the participants for the third advertisement, which was the disgust inducing manipulated ad ($M = 15.724$, $SD = 1.75$, $N = 58$). The difference was found to be statistically significant, $t (57) = 68.230$, $p < .001$. A mean of 15.724 is between the items fearful (15) and disgusted (16). Although the item ‘fearful’ belongs to the fear variable, the item ‘disgusted’ is situated under the disgust variable which is the intended emotional appeal of this advert. Similar to the previous advertisement, the scatterplot for ad3 shows that the data are normally distributed with an even spread of points above and below the horizontal line (Figure 12). The graph further confirms that the sample data are normally distributed for the emotions scale on the third manipulated advertisement (disgust).
Hypotheses testing

To account for any correlation among the dependent variables, the data were analyzed using a multivariate approach. ANOVA was used to test the first hypothesis as we have more than three sets of parametric data and the aim is to test the means of the sets by examining the variance within the whole set of scores (Foster, 1998). Although ANOVA can tell us if there is a difference between the means of three or more groups, Post hoc tests were also used to determine where the differences occur (Janssens et al., 2008).

Hypotheses 1a and 1b

Hypothesis 1a predicted that there would be no difference in attitude towards the ad for the first three ads that are manipulated with negative emotions (fear, guilt and disgust), with a positive attitude towards all three ads. Hypothesis 1b predicted that women will report more positive attitude towards all the three ads that include negative feelings.
Before me move on to the data analysis for H1a, we re-run the reliability tests in order to check our new cumulative variables’ consistency (N=174). A Cronbach’s alpha of .794 indicates good internal consistency of the scale.

A two-way ANOVA was conducted to compare the effect of attitude towards the ad on each of the three different adverts that include negative emotions. All effects were statistically significant at the .05 significance level. The main effect of the three negative emotions yielded an F ratio of \[ F (2, 171) = 3.767, p = .025 \] indicating a significant difference between guilt (\( M = 3.507, SD = .812 \)), fear (\( M = 3.203, SD = .847 \)) and disgust (\( M = 3.079, SD = .876 \)).

In order to determine where significance exists we conducted a Tukey post hoc test to compare each condition with all other conditions. This test will compare the three negative feelings: fear, guilt and disgust (Table 8).

Taken together, these results indicate that there is less positive attitude towards the guilt inducing ad. Fear and disgust appear to positively affect the participants’ attitude towards the ad. Hence, H1a is rejected.

<table>
<thead>
<tr>
<th>Descriptive Statistics for Attitude towards the Ad</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>Fear</td>
</tr>
<tr>
<td>Guilt</td>
</tr>
<tr>
<td>Disgust</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Table 7: ANOVA - Attitude towards the Ad

<table>
<thead>
<tr>
<th>Test of Between-Subject effects for Attitude towards the Ad</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type III Sum of Squares</td>
</tr>
<tr>
<td>-------------------------</td>
</tr>
<tr>
<td>Corrected Model</td>
</tr>
<tr>
<td>Intercept</td>
</tr>
<tr>
<td>Fear, Guilt, Disgust</td>
</tr>
<tr>
<td>Error</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

\( a. \) R squared .042 (Adjusted R squared=.031)

Table 8: ANOVA Test of Between-Subject effects for Attitude towards the Ad
<table>
<thead>
<tr>
<th>Multiple comparisons</th>
<th>Fear, Guilt, Disgust</th>
<th>Fear, Guilt, Disgust</th>
<th>Mean difference</th>
<th>Std. Error</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear</td>
<td>Guilt</td>
<td>-.3034</td>
<td>.16029</td>
<td>.180</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Disgust</td>
<td>.1241</td>
<td>.16029</td>
<td>1.001</td>
<td></td>
</tr>
<tr>
<td>Guilt</td>
<td>Fear</td>
<td>.3034</td>
<td>.16029</td>
<td>.180</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Disgust</td>
<td>.4276*</td>
<td>.16029</td>
<td>.025</td>
<td></td>
</tr>
<tr>
<td>Disgust</td>
<td>Fear</td>
<td>-.1241</td>
<td>.16029</td>
<td>1.001</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Guilt</td>
<td>-.4276*</td>
<td>.16029</td>
<td>.025</td>
<td></td>
</tr>
</tbody>
</table>

*. The mean difference is significant at the .05 level.

Table 9: Multiple comparisons between negative emotions

Regarding H1b, a one-way between subjects ANOVA was conducted to compare whether attitude towards the ad is different for men and women for the three advertisements with negative emotions. Table 10 shows that there is a significant effect at the $p < .05$ for the three conditions [$F (2, 168) = 6.02, p = .001$]

Post hoc comparisons using the Tukey HSD test indicated that the mean score for women ($M_{WomenFear} = 3.265, SD = .924, M_{WomenGuilt} = 3.690, SD = .862, M_{WomenDisgust} = 3.355, SD = .914$) is significantly different than the mean score for men on all three adverts ($M_{MenFear} = 3.066, SD = .647, M_{MenGuilt} = 3.100, SD = .500$ and $M_{MenDisgust} = 2.466, SD = .617$ respectively). Taken together, these results indicate that there is more positive attitude towards all three ads for women compared to men. Thus, H1b is accepted.
## Descriptive Statistics

<table>
<thead>
<tr>
<th>Gender</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>3.066</td>
<td>.674</td>
<td>18</td>
</tr>
<tr>
<td>Women</td>
<td>3.265</td>
<td>.924</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td>3.203</td>
<td>.847</td>
<td>58</td>
</tr>
<tr>
<td>Guilt</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>3.100</td>
<td>.500</td>
<td>18</td>
</tr>
<tr>
<td>Women</td>
<td>3.690</td>
<td>.862</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td>3.506</td>
<td>.812</td>
<td>58</td>
</tr>
<tr>
<td>Disgust</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>2.466</td>
<td>.617</td>
<td>18</td>
</tr>
<tr>
<td>Women</td>
<td>3.355</td>
<td>.914</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td>3.079</td>
<td>.925</td>
<td>58</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>2.877</td>
<td>.650</td>
<td>18</td>
</tr>
<tr>
<td>Women</td>
<td>3.436</td>
<td>.911</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td>3.263</td>
<td>.876</td>
<td>58</td>
</tr>
</tbody>
</table>

Table 10: ANOVA for Attitude towards the Ad by Gender

<table>
<thead>
<tr>
<th></th>
<th>Type III Sum of Squares</th>
<th>df.</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>20.219⁺</td>
<td>5</td>
<td>4.044</td>
<td>6.022</td>
<td>.001</td>
</tr>
<tr>
<td>Intercept</td>
<td>1.484.896</td>
<td>1</td>
<td>1.484.896</td>
<td>2.211.430</td>
<td>.001</td>
</tr>
<tr>
<td>Fear, Guilt, Disgust</td>
<td>5.826</td>
<td>2</td>
<td>2.913</td>
<td>4.338</td>
<td>.015</td>
</tr>
<tr>
<td>Gender</td>
<td>11.633</td>
<td>1</td>
<td>11.633</td>
<td>17.324</td>
<td>.001</td>
</tr>
<tr>
<td>Fear, Guilt, Disgust *</td>
<td>2.973</td>
<td>2</td>
<td>1.487</td>
<td>2.214</td>
<td>.112</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>112.806</td>
<td>168</td>
<td>.671</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1.985.880</td>
<td>174</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>133.025</td>
<td>173</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. R Squared = .152 (Adjusted R Squared = .127)

Table 11: Test of Between-Subjects Effects

**Hypothesis 2a**

Hypothesis 2a predicted that the cause related advertisement will have a greater appeal on women. To compare the scores of men and women on one variable (advert appeal) we performed an independent samples t-test (Foster, 1998). The probability is less than .05 ($p = .001$) which indicates that there is a statistically
significant difference between the means of the two sets of scores. The mean on cause related ad appeal for men at 3.17 is significantly different than the mean for women, which is at 4.08 (Table 12). Both means indicate a positive attitude towards the cause related ad, but the mean for women is much higher, thus we accept hypothesis 2a.

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>St. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause-related Ad (Ad6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>18</td>
<td>3.17</td>
<td>.855</td>
<td>.201</td>
</tr>
<tr>
<td>Women</td>
<td>40</td>
<td>4.08</td>
<td>.737</td>
<td>.117</td>
</tr>
</tbody>
</table>

Table 12: Group Statistics for the Cause-related Ad

<table>
<thead>
<tr>
<th>Gender</th>
<th>F</th>
<th>Sig.</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause-related Ad (Ad6)</td>
<td>1.103</td>
<td>.298</td>
<td>-4.176</td>
<td>56</td>
<td>.001</td>
<td>-918</td>
<td>-.220</td>
<td>-1.359</td>
<td>-478</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-3.946</td>
<td>28.87</td>
<td>.001</td>
<td>3</td>
<td>-918</td>
<td>-.233</td>
<td>-1.394</td>
<td>-442</td>
<td></td>
</tr>
</tbody>
</table>

Table 13: Independent Samples t-test for the Cause-related Ad by Gender

**Hypothesis 2b**

Hypothesis 2b predicts that women will report higher purchase intention for the advertised product when looking at the cause-related advertisement compared to the other five adverts. Similar to the previous analysis, this time we performed six independent samples t-tests to compare the purchase intentions of men and women for all the advertisements. Indeed the results indicate that purchase intention is
higher for women when being exposed to the cause related advert ($M = 2.68$, $SD = .096$) compared to all the other ads (Table 14). Consequently, H2b is accepted.

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>Gender</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear (Ad1)</td>
<td>Men</td>
<td>4.89</td>
<td>1.329</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td>4.71</td>
<td>1.158</td>
<td>40</td>
</tr>
<tr>
<td>Guilt (Ad2)</td>
<td>Men</td>
<td>4.53</td>
<td>1.382</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td>3.97</td>
<td>1.340</td>
<td>40</td>
</tr>
<tr>
<td>Disgust (Ad3)</td>
<td>Men</td>
<td>5.19</td>
<td>1.208</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td>4.67</td>
<td>1.174</td>
<td>40</td>
</tr>
<tr>
<td>Environm_App (Ad4)</td>
<td>Men</td>
<td>4.33</td>
<td>1.383</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td>3.44</td>
<td>1.122</td>
<td>40</td>
</tr>
<tr>
<td>Person_Gains (Ad5)</td>
<td>Men</td>
<td>4.43</td>
<td>1.406</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td>3.46</td>
<td>.843</td>
<td>40</td>
</tr>
<tr>
<td>Cause-related (Ad6)</td>
<td>Men</td>
<td>3.74</td>
<td>1.677</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td>2.68</td>
<td>.605</td>
<td>40</td>
</tr>
</tbody>
</table>

Table 14: T-test for Purchase Intention by Gender
<table>
<thead>
<tr>
<th></th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
<td>t</td>
</tr>
<tr>
<td>Fear (Ad1)</td>
<td></td>
<td></td>
<td>.785</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.486</td>
</tr>
<tr>
<td>Guilt (Ad2)</td>
<td>.240</td>
<td>.626</td>
<td>1.456</td>
</tr>
<tr>
<td></td>
<td>1.438</td>
<td>31.927</td>
<td>.160</td>
</tr>
<tr>
<td>Disgust (Ad3)</td>
<td>.597</td>
<td>.443</td>
<td>1.563</td>
</tr>
<tr>
<td></td>
<td>1.546</td>
<td>32.007</td>
<td>.132</td>
</tr>
<tr>
<td>Environm_A pp (Ad4)</td>
<td>1.516</td>
<td>.223</td>
<td>2.597</td>
</tr>
<tr>
<td></td>
<td>2.398</td>
<td>27.507</td>
<td>.024</td>
</tr>
<tr>
<td>Person_Gains (Ad5)</td>
<td>1.516</td>
<td>.001</td>
<td>3.280</td>
</tr>
<tr>
<td></td>
<td>2.728</td>
<td>22.692</td>
<td>.012</td>
</tr>
<tr>
<td>Cause-related Ad (Ad6)</td>
<td>25.422</td>
<td>.001</td>
<td>3.551</td>
</tr>
<tr>
<td></td>
<td>2.609</td>
<td>19.021</td>
<td>.017</td>
</tr>
</tbody>
</table>

Table 15: Independent Samples t-test for Purchase Intention by Gender
Hypothesis 3a

The third hypothesis (H3a) predicts that young people will report higher attention towards the cause-related advertisement. In order to test this hypothesis we used a one-way between groups ANOVA as there is one independent variable with three levels (age) and one dependent continuous variable (attention to the ad). One-way ANOVA will tell us whether there are significant differences in the mean scores on the dependent variable across the three groups of age. Post-hoc tests will then be used to find out where these differences lie (Pallant, 2007).

Regarding H3a, subjects were divided into three groups according to their age (Group 1: 18-30yrs, Group 2: 31-45yrs, Group 3: over 45 years old). The actual difference in mean scores between the groups was small (Group 1: $M = 3.81, SD = .907$; Group 2: $M = 3.66, SD = 1.001$; Group 3: $M = 3.94, SD = .675$), however there was no statistically significant difference in attention to the ad scores for the three age groups ($p = .705$) (Tables 16 and 17). Therefore, hypothesis 3a is rejected.

<table>
<thead>
<tr>
<th>Descriptives for attention towards the Cause-related Ad by Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>Age group 18-30 yrs</td>
</tr>
<tr>
<td>Age group 31-45 yrs</td>
</tr>
<tr>
<td>Age group over 45 yrs</td>
</tr>
<tr>
<td>Total Model Fixed Effects</td>
</tr>
<tr>
<td>Random Effects</td>
</tr>
</tbody>
</table>

a. Warning: Between-component variance is negative. It was replaced by 0.0 in computing this random effects measure.

Table 16: Descriptive statistics for attention to the Cause-related Ad by Age
Hypothesis 3b

The second sub-group of the third hypothesis predicts that young people will report higher purchase intention for the advertised product when looking at the cause-related advertisement (H3b). Equally, we used a one-way between groups ANOVA as there is one independent variable with three levels (age) and one dependent continuous variable (purchase intention). Again, subjects were divided into three groups according to their age (Group 1: 18-30yrs, Group 2: 31-45yrs, Group 3: over 45 years old). The actual difference in mean scores between the groups was small (Group 1: $M = 2.92$, $SD = 1.177$; Group 2: $M = 3.42$, $SD = 1.341$; Group 3: $M = 2.67$, $SD = .703$), but there was no statistically significant difference in purchase intention scores for the three age groups ($p = .193$) (Tables 18 and 19). For this reason, hypothesis 3b is also rejected.
Descriptive statistics for Purchase Intention towards the Cause-related Ad by Age

<table>
<thead>
<tr>
<th>Age group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Between-Component Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-30 yrs</td>
<td>29</td>
<td>2.92</td>
<td>1.177</td>
<td>.218</td>
<td>2.47</td>
<td>3.37</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Age group 31-45 yrs</td>
<td>16</td>
<td>3.42</td>
<td>1.341</td>
<td>.335</td>
<td>2.71</td>
<td>4.14</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Age group over 45 yrs</td>
<td>13</td>
<td>2.67</td>
<td>.703</td>
<td>.195</td>
<td>2.25</td>
<td>3.10</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>3.00</td>
<td>1.155</td>
<td>1.52</td>
<td>2.70</td>
<td>3.31</td>
<td>2</td>
<td>7</td>
</tr>
</tbody>
</table>

Model Fixed Effects

<table>
<thead>
<tr>
<th>Age group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Between-Component Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-30 yrs</td>
<td>29</td>
<td>2.92</td>
<td>1.177</td>
<td>.218</td>
<td>2.47</td>
<td>3.37</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Age group 31-45 yrs</td>
<td>16</td>
<td>3.42</td>
<td>1.341</td>
<td>.335</td>
<td>2.71</td>
<td>4.14</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Age group over 45 yrs</td>
<td>13</td>
<td>2.67</td>
<td>.703</td>
<td>.195</td>
<td>2.25</td>
<td>3.10</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>3.00</td>
<td>1.155</td>
<td>1.52</td>
<td>2.70</td>
<td>3.31</td>
<td>2</td>
<td>7</td>
</tr>
</tbody>
</table>

Random Effects

<table>
<thead>
<tr>
<th>Age group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Between-Component Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-30 yrs</td>
<td>29</td>
<td>2.92</td>
<td>1.177</td>
<td>.218</td>
<td>2.47</td>
<td>3.37</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Age group 31-45 yrs</td>
<td>16</td>
<td>3.42</td>
<td>1.341</td>
<td>.335</td>
<td>2.71</td>
<td>4.14</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Age group over 45 yrs</td>
<td>13</td>
<td>2.67</td>
<td>.703</td>
<td>.195</td>
<td>2.25</td>
<td>3.10</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>3.00</td>
<td>1.155</td>
<td>1.52</td>
<td>2.70</td>
<td>3.31</td>
<td>2</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 18: Descriptive statistics for purchase intention towards the Cause-related Ad by Age

ANOVA - Purchase Intention towards the Cause-related Ad

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>4.411</td>
<td>2</td>
<td>2.205</td>
<td>1.693</td>
</tr>
<tr>
<td>Within Groups</td>
<td>71.651</td>
<td>55</td>
<td>1.303</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>76.061</td>
<td>57</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 19: ANOVA – Purchase intention towards the Cause-related Ad

Hypothesis 4a

Hypothesis 4a indicates that there will be no difference in participants’ attitude towards the advertisement for the ad that is focused on environmental gains (Ad4) compared to the one that is focused on personal gains (Ad5). To compare the scores for the two adverts we performed an independent samples t-test (Foster, 1998). The probability is less than .05 ($p = .001$) which indicates that there is a statistically significant difference between the means of the two sets of scores (Table 21). The mean on advert appeal for the ad that is focused on promoting eco-labels and
environmental benefits is at 3.94 and is slightly higher than the mean for the personal gains advertisement, which is reported at 3.84. The two means are very close but indeed there is a vaguely higher attention towards Ad4 compared to Ad5 (Table 20), thus we accept hypothesis 4a.

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>Std. deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environm_App (Ad4)</td>
<td>58</td>
<td>3.94</td>
<td>.802</td>
</tr>
<tr>
<td>Person_Gains (Ad5)</td>
<td>58</td>
<td>3.84</td>
<td>.905</td>
</tr>
</tbody>
</table>

Table 20: One sample statistics for attention towards Ad4 compared to Ad5

<table>
<thead>
<tr>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>95% Confidence Interval for Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Environm_App (Ad4)</td>
<td>37.480</td>
<td>57</td>
<td>.001</td>
<td>3.945</td>
</tr>
<tr>
<td>Person_Gains (Ad5)</td>
<td>32.369</td>
<td>57</td>
<td>.001</td>
<td>3.845</td>
</tr>
</tbody>
</table>

Table 21: One sample t-test for attention towards Ad4 compared to Ad5

Hypothesis 4b

Given the current bibliography, hypothesis 4b indicates that there will be higher purchase intention for the ad that is focused on personal gains (Ad5) compared to the one that is focused on environmental gains (Ad4). To compare the purchase intention scores for the two adverts we performed an independent samples t-test (Foster, 1998). The probability is less than .05 (p = .001) which indicates that there is a statistically significant difference between the means of the two sets of scores (Table 23). The mean on purchase intention for the ad that is focused on promoting eco-labels and environmental benefits is at 3.72 and it does not differ from the mean that is focused on personal gains, which is at 3.76 (Table 22). Both means indicate high purchase intention, but the two means are nearly identical, thus we reject hypothesis 4b.
One-sample statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environm_App (Ad4)</td>
<td>58</td>
<td>3.72</td>
<td>1.266</td>
<td>.166</td>
</tr>
<tr>
<td>Person_Gains (Ad5)</td>
<td>58</td>
<td>3.76</td>
<td>1.133</td>
<td>.149</td>
</tr>
</tbody>
</table>

Table 22: One sample statistics for purchase intention towards Ad4 compared to Ad5

One-sample t-test

<table>
<thead>
<tr>
<th></th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>95% Confidence Interval for Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Environm_App (Ad4)</td>
<td>22.374</td>
<td>57</td>
<td>.001</td>
<td>3.720</td>
<td>Upper</td>
</tr>
<tr>
<td>Person_Gains (Ad5)</td>
<td>25.273</td>
<td>57</td>
<td>.001</td>
<td>3.759</td>
<td></td>
</tr>
</tbody>
</table>

Table 23: One sample t-test for purchase intention towards Ad4 compared to Ad5

**Hypothesis 5**

Hypothesis 5 indicates that there will be positive attitude towards all six advertisements for green consumers compared to non green consumers. To explore this hypothesis we first grouped the participants into two categories (green and non-green consumers) and then we performed six independent samples t-tests to compare the attitude towards the ad for green and non-green consumers (attention to the ad was measured in a 5 point Likert-type scale with scores closer to 5 being higher and scores closer to 1 being lower). Indeed the results indicate that attention to the ad is higher for green consumers for all six advertisements (Table 24). Specifically, for ad1 (fear) green consumers reported slightly higher attention ($M = 3.25, SD = .716$) compared to non-green consumers ($M = 3.16, SD = .989$). Similarly, for ad2 (guilt), green consumers account for higher attention towards the ad ($M = 3.73, SD = .746$) compared to the non-green ones ($M = 3.31, SD = .828$). The difference for the third advertisement is even higher as the green consumers paid much more attention to the ad ($M = 3.46, SD = .914$) than the non-green consumers ($M = 2.75, SD = .914$). The advert that aims in promoting environmental gains reports higher attention for green consumers ($M = 4.14, SD = .833$) compared to the non-green ones ($M = 3.77, SD = .854$). Similarly, the advert that is focused on promoting
personal gains attracts higher attention from green consumers ($M = 4.10, SD = .833$), compared to the non-green consumers ($M = 3.63, SD = .920$). Lastly, regarding the cause-related ad, far higher attention is reported for green consumers ($M = 4.05, SD = .859$), compared to non-green ones ($M = 3.58, SD = .851$). Therefore, H5 is accepted.

<table>
<thead>
<tr>
<th></th>
<th>Green Consumer</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear (Ad1)</td>
<td>Green</td>
<td>3.16</td>
<td>.716</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Non-green</td>
<td>3.25</td>
<td>.989</td>
<td>27</td>
</tr>
<tr>
<td>Guilt (Ad2)</td>
<td>Green</td>
<td>3.31</td>
<td>.828</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Non-green</td>
<td>3.73</td>
<td>.746</td>
<td>27</td>
</tr>
<tr>
<td>Disgust (Ad3)</td>
<td>Green</td>
<td>2.75</td>
<td>.914</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Non-green</td>
<td>3.46</td>
<td>.798</td>
<td>27</td>
</tr>
<tr>
<td>Environm_App (Ad4)</td>
<td>Green</td>
<td>3.77</td>
<td>.854</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Non-green</td>
<td>4.14</td>
<td>.701</td>
<td>27</td>
</tr>
<tr>
<td>Person_Gains (Ad5)</td>
<td>Green</td>
<td>3.63</td>
<td>.920</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Non-green</td>
<td>4.10</td>
<td>.833</td>
<td>27</td>
</tr>
<tr>
<td>Cause-related (Ad6)</td>
<td>Green</td>
<td>3.58</td>
<td>.851</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Non-green</td>
<td>4.05</td>
<td>.859</td>
<td>27</td>
</tr>
</tbody>
</table>

Table 24: T-test for attention towards all ads

Hypothesis 6

Hypothesis 6 indicates that green consumers will report higher purchase intention for all six ads compared to non-green consumers. Again, to explore this hypothesis we first grouped the participants into two categories (green and non-green consumers) and then we performed six independent samples t-tests to compare the purchase intention for green and non-green consumers (purchase intention was measured in a 7 point Likert-type scale with scores closer to 0 being higher and scores closer to 7 being lower). Indeed the results indicate that purchase intention is higher for green consumers for all six advertisements (Table 25). Specifically, for ad1 (fear) green consumers reported slightly higher purchase intention ($M = 4.71, SD = 1.085$) compared to non-green consumers ($M = 4.81, SD = 1.317$). Similarly, for ad2 (guilt), green consumers account for higher purchase intention ($M = 4.06, SD = 1.212$) compared to the no green ones ($M = 4.21, SD = 1.504$). The difference for the third advertisement is also higher as the green consumers account for higher
purchase intention ($M = 4.78$, $SD = 1.112$) than the non-green consumers ($M = 4.88$, $SD = 1.288$). The advert that aims in promoting environmental gains reports higher purchase intention for green consumers ($M = 3.56$, $SD = 1.178$) compared to the non-green ones ($M = 3.85$, $SD = 1.343$). In the same way, the advert that is focused on promoting personal gains attracts higher purchase intention for green consumers ($M = 3.45$, $SD = .654$), compared to the non-green consumers ($M = 4.02$, $SD = 1.382$). Lastly, regarding the cause-related ad, much higher purchase intention is reported for green consumers ($M = 2.77$, $SD = .631$), compared to non-green ones ($M = 3.21$, $SD = .1.338$). Thus, H6 is accepted.

<table>
<thead>
<tr>
<th>T-test for purchase intention towards all ads</th>
<th>Green Consumer</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear (Ad1)</td>
<td>Green</td>
<td>4.81</td>
<td>1.317</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Non-green</td>
<td>4.71</td>
<td>1.085</td>
<td>27</td>
</tr>
<tr>
<td>Guilt (Ad2)</td>
<td>Green</td>
<td>4.21</td>
<td>1.504</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Non-green</td>
<td>4.06</td>
<td>1.212</td>
<td>27</td>
</tr>
<tr>
<td>Disgust (Ad3)</td>
<td>Green</td>
<td>4.88</td>
<td>1.288</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Non-green</td>
<td>4.78</td>
<td>1.112</td>
<td>27</td>
</tr>
<tr>
<td>Environm_App (Ad4)</td>
<td>Green</td>
<td>3.85</td>
<td>1.343</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Non-green</td>
<td>3.56</td>
<td>1.178</td>
<td>27</td>
</tr>
<tr>
<td>Person_Gains (Ad5)</td>
<td>Green</td>
<td>4.02</td>
<td>1.382</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Non-green</td>
<td>3.45</td>
<td>.654</td>
<td>27</td>
</tr>
<tr>
<td>Cause-related (Ad6)</td>
<td>Green</td>
<td>3.21</td>
<td>1.448</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Non-green</td>
<td>2.77</td>
<td>.631</td>
<td>27</td>
</tr>
</tbody>
</table>

Table 25: T-test for purchase intention towards all ads
4.3.2. Eye tracking results

Eye movements were recorded by Tobii Pro Studio version 3.4.5 which was used to test advertising design. Viewing was not binocular; instead Tobii Pro screen-based eye tracker (Figure 13) was used to monitor eye movements thus allowing participants’ freedom of movement. Infrared (940nm) video-based technology was used by the system to monitor true gaze position on a display in spite of head motion.

Figure 13: Tobii Pro computer

Participants in the experiment were comfortably seated such that the distance between the eye tracker and their eyes was approximately 64 cm (valid for Tobii T Series Eye Trackers). Next, they were instructed to look at the calibration points as they moved over the screen in order to start the calibration process. The calibration was accurate for all 58 participants (error is gaze position was less than 0.2°) allowing us to move on to the main study. Eye positions were sampled at 120 Hz which means that Tobii eye tracker tracks where the participants look 120 times per second, therefore providing detailed research into the timing and duration of fixation. The Tobii computer screen that was used was 22 inches with 16:9 Aspect Ratio.

The stimuli were six unfamiliar green advertisements whose design was manipulated to project specific advertising appeals. As a rough measure of the amount of information contained within the advertisements, we counted the number of words in each ad (Table 26). The data shows that the fourth ad (environmental benefits) is
the most loaded one illustrating 22 words and 7 objects, followed by the fifth ad (personal gains ad) which shows 25 words and 3 objects. The least packed ad is the second one (feeling of guilt) with 9 words and 4 objects and the last one (cause-related ad) with 12 words and 3 objects.

<table>
<thead>
<tr>
<th></th>
<th>Adv1</th>
<th>Adv2</th>
<th>Adv3</th>
<th>Adv4</th>
<th>Adv5</th>
<th>Adv6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Words</td>
<td>18</td>
<td>9</td>
<td>12</td>
<td>22</td>
<td>25</td>
<td>12</td>
</tr>
<tr>
<td>Objects</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>7</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 26: Count of words and objects per advertisement

Participants were told to imagine that they were looking at a magazine and came across those hand sanitizer advertisements. All participants viewed each ad for six seconds (per ad) while their eye movements were recorded. After participants had viewed the first advertisement they pressed a key to move on to the online survey and when they had finished answering the survey, the system automatically moved on the next advertisement until all six ads were viewed and all six questionnaires were completed.

We analyzed the data with a combination of Tobii Studio Software and SPSS in terms of the amount of time participants devoted to each AOI of each advertisement. The text was central to the ad with the picture serving primarily as background and the product being distinguished from both the text and the pictures. For example, the first advertisement (Figure 14) is promoting three main advertising appeals: the picture which is placed at the left hand side, the text at the top of the right hand side and the product at the bottom of the right hand side. Thus, the text is not overlapping with any pictures or the advertised product itself. Two different analyses were performed relative to the amount of time participants looked at each area of interest (AOI). First, we provide crosstabs of what area did participants look at first in order to understand what was the very first thing that caught their attention. Second, the amount of time that was devoted to each region was computed and then we calculated the mean score for the fixation duration at each AOI. The results of these two measures provided reasonably consistent results. In addition to the amount of time in a region, we also analyzed the number of fixations in a region. For average fixation duration and average saccade size we only report means based on participants data for each of the six ads because the significant concern is what these
data tell us about general performance as a function of condition and how well they generalize across different ads. Lastly, an average of scan paths is provided for each advertisement as it is difficult to quantify them.
4.3.2.1. First point of fixation

As described in Chapter II, each advertisements was separated into some Areas Of Interest (AOIs) which are basically the diverse parts of an advertisement that shape the ad as a whole (e.g. text, product, image).

Advertisement 1

For the first advertisement, which is the one that communicates the emotion of fear, the data indicate that participants’ first fixation was at the woman’s face (37.9%). Other than that, 24.1% firstly looked at the product, 17.2% looked at the text and 17.2% at the hands (Figure 14).

Figure 14: First point of fixation for Ad 1
Advertisement 2

The second advertisement is the one that discloses the emotion of guilt. The data designate that the vast majority of participants’ first fixation was at the body (91.4%). Next, 3.4% of the participants firstly looked at the text, 3.4% looked at the water tub and 1.7% at the product (Figure 15).

Figure 15: First point of fixation for Ad 2
Advertisement 3

The third advertisement relates to the emotion of disgust. The data show that the greater part of participants firstly looked at the cockroaches (56.9%). Also, 36.2% of the participants first fixated at the baby’s face. From this percentage 24.1% were women and 12.1% were men. Lastly, the text caught the attention of 6.9% of the viewers (Figure 16).

Figure 16: First point of fixation for Ad 3
Advertisement 4

The fourth advertisement is communicating the pro-environmental claims of the product with the use of various eco-labels. The data demonstrate that a large percentage of the participants firstly looked at the text (72.4%). Next, 24.1% of the participants fixated at the landscape and 1.7% at the product. Surprisingly, none of the 58 viewers looked at the eco-labels first (Figure 17).

Figure 17: First point of fixation for Ad 4
Advertisement 5

The fifth advertisement is disclosing the personal gains for consumers that are willing to buy this product and also the main EU eco-label is used as a means to project that the product is green. The data show that the greater part of the viewers firstly looked at the hands (86.2%) and 13.8% looked at the text. Unexpectedly, none of the 58 viewers looked at the EU eco-label or the product first (Figure 18).

Figure 18: First point of fixation for Ad 5
Advertisement 6

The sixth advertisement is the cause-related ad that wishes to promote the product’s CSR collaboration with UNICEF. The data show that the greater part of the viewers firstly looked at the girl’s face (94.8%). Not surprisingly, of this percentage 65.5% were women and 29.3% were men. Next, 1.7% of the viewers firstly looked at the UNICEF sign and 1.7% looked at the text. None of the 58 viewers looked at the product first (Figure 19).

Figure 19: First point of fixation for Ad 6
4.3.2.2. Fixation duration

The second part of the eye tracking data analysis is related to the fixation duration (in seconds) at each AOI of each ad. Similar to the previous analysis, we have separated this examination by advertisement.

Advertisement 1

As illustrated in figure 20, participants’ mean fixation duration for text is 3.10 sec, followed by the hands (1.57 sec), the face (.93 sec) and the product (.36 sec). Although the mean score for text and face are not at all close, we can see that the maximum score for both of them is very close (Table 27). The minimum score at zero indicates that at least one participant did not fixate neither on the text, nor the product, the hands and the face at all (Table 27). The heatmap in Figure 21 is a visual representation of the mean fixation duration per AOI. The maximum viewer attention is highlighted in red, followed by yellow and green; in other words the maximum number of fixations is exemplified in red (Figure 21).
Figure 20: Mean fixation duration for Ad 1

<table>
<thead>
<tr>
<th></th>
<th>Text (58)</th>
<th>Product (58)</th>
<th>Hands (58)</th>
<th>Face (58)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>3.10</td>
<td>.36</td>
<td>1.57</td>
<td>.93</td>
</tr>
<tr>
<td><strong>Median</strong></td>
<td>3.68</td>
<td>.28</td>
<td>1.12</td>
<td>.76</td>
</tr>
<tr>
<td><strong>Minimum</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Maximum</strong></td>
<td>5.63</td>
<td>1.43</td>
<td>4.06</td>
<td>5.24</td>
</tr>
</tbody>
</table>

Table 27: Fixation duration – Advertisement 1
Figure 21: Visual representation (heatmap) of fixation duration for Ad 1
Advertisement 2

As demonstrated in Figure 22, the participants’ highest mean fixation duration is for the area targeting at the text (2.21 sec), followed by the body (1.67 sec), the product (1.31 sec), the water tub (.60) and the eco sign (.19 sec). Notably, all participants looked at the body area and the product as well (Table 28), but not all participants looked at the text, the water tub or the eco sign. The heatmap in Figure 23 represents the mean fixation duration at each area of the advertisement. The maximum number of viewer fixations is highlighted in red (text, water tub, child), followed by yellow and green (product) (Figure 23).

Figure 22: Mean fixation duration for Ad 2
Table 28: Fixation duration – Advertisement 2

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>2.21</td>
<td>1.67</td>
<td>.60</td>
<td>.19</td>
<td>1.31</td>
</tr>
<tr>
<td>Median</td>
<td>2.15</td>
<td>1.62</td>
<td>.57</td>
<td>0</td>
<td>1.32</td>
</tr>
<tr>
<td>Minimum</td>
<td>0</td>
<td>.14</td>
<td>0</td>
<td>0</td>
<td>.27</td>
</tr>
<tr>
<td>Maximum</td>
<td>4.12</td>
<td>3.32</td>
<td>2.39</td>
<td>1.45</td>
<td>3.75</td>
</tr>
</tbody>
</table>

Figure 23: Visual representation (heatmap) of fixation duration for Ad 2
Advertisement 3

Unlike the previous advertisements, participants’ mean fixation duration for this ad shows that the cockroaches are provides the highest mean at 2.60 sec (Figure 24). Other than that, text comes second at 1.68 sec, followed by the product (1.02 sec), and the baby (.65 sec). Table 29 shows that all participants fixated at the cockroaches and the text, whilst some participants did not look at the product nor the baby at all. The heatmap (Figure 25) shows the mean fixation duration for each area of interest. The maximum number of viewer fixations is highlighted in red (text, cockroaches, product), followed by yellow and green (baby).

Figure 24: Mean fixation duration for Ad 3
Table 29: Fixation duration – Advertisement 3

<table>
<thead>
<tr>
<th></th>
<th>Cockroaches (58)</th>
<th>Baby (58)</th>
<th>Text (58)</th>
<th>Product (58)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>2.60</td>
<td>.65</td>
<td>1.68</td>
<td>1.02</td>
</tr>
<tr>
<td>Median</td>
<td>2.66</td>
<td>.50</td>
<td>1.67</td>
<td>.95</td>
</tr>
<tr>
<td>Minimum</td>
<td>1.25</td>
<td>0</td>
<td>.14</td>
<td>0</td>
</tr>
<tr>
<td>Maximum</td>
<td>4.07</td>
<td>2.07</td>
<td>3.07</td>
<td>2.20</td>
</tr>
</tbody>
</table>

Figure 25: Visual representation (heatmap) of fixation duration for Ad 3
Advertisement 4

Similar to previous results, participants’ mean fixation duration is higher for the text area (Figure 26) in this ad (4.18 sec), whereas the remaining three areas report numbers much less than a second each (landscape .41 sec, eco-labels .50 sec, product .76 sec). Interestingly, text area is the only one that was viewed by all participants (Table 30). Although the landscape image is covering 3/4s of the whole ad, the data show that eco-labels gathered more fixation time than landscape. The heatmap (Figure 27) displays the mean fixation duration for each area of interest. The maximum of viewer attention is painted in red (text), followed by yellow and green (product and scenery). The heatmap indicates that viewers paid no attention to the eco-labels as there is no activity at that area.

![Figure 26: Mean fixation duration for Ad 4](image-url)
Table 30: Fixation duration – Advertisement 4

<table>
<thead>
<tr>
<th></th>
<th>Text (58)</th>
<th>Landscape (58)</th>
<th>Eco-label (58)</th>
<th>Product (58)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>4.18</td>
<td>.41</td>
<td>.50</td>
<td>.76</td>
</tr>
<tr>
<td><strong>Median</strong></td>
<td>4.28</td>
<td>.24</td>
<td>.49</td>
<td>.66</td>
</tr>
<tr>
<td><strong>Minimum</strong></td>
<td>.68</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Maximum</strong></td>
<td>5.81</td>
<td>2.61</td>
<td>1.87</td>
<td>2.40</td>
</tr>
</tbody>
</table>

Figure 27: Visual representation (heatmap) of fixation duration for Ad 4
Advertisement 5

The data show that participants’ highest mean fixation duration for ad 5 lies in the text area (4.07 sec), followed by the EU eco-label (.64 sec), the hands (.60 sec) and the product (.44 sec) (Figure 28). In addition, the data demonstrate that again, all participants fixated at the text only, whilst the maximum fixation duration for the eco-label, the hands and the product are fairly equal (Table 31). The heatmap (Figure 29) represents the mean fixation duration for the fourth advertisement. The maximum number of viewer fixations is demonstrated in red (text), followed by yellow and green (product). Similar to the previous ad, the heatmap indicates that viewers paid no attention to the EU eco-label as there is no activity at that area.

Figure 28: Mean fixation duration for Ad 5
## Table 31: Fixation duration – Advertisement 5

<table>
<thead>
<tr>
<th></th>
<th>Text (58)</th>
<th>Hands (58)</th>
<th>Product (58)</th>
<th>Eco-label (58)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>4.07</td>
<td>.60</td>
<td>.44</td>
<td>.64</td>
</tr>
<tr>
<td><strong>Median</strong></td>
<td>4.26</td>
<td>.39</td>
<td>.38</td>
<td>.57</td>
</tr>
<tr>
<td><strong>Minimum</strong></td>
<td>.45</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Maximum</strong></td>
<td>5.85</td>
<td>2.32</td>
<td>2.02</td>
<td>2.01</td>
</tr>
</tbody>
</table>

**Figure 29:** Visual representation (heatmap) of fixation duration for Ad 5
Advertisement 6

The data illustrate that participants’ higher mean fixation duration for the sixth ad is in the descriptive text (1.34 sec) and the girl’s face (1.30 sec) (Figure 25). Other than that, the headline comes third with 1.26 sec, followed by the product (.71 sec) and the UNICEF label which is described as CSR (.43). Unexpectedly, as demonstrated in table 32, it is only the headline that was looked at by all participants with a minimum of .57 sec. Regarding the maximum fixation durations, notably the girl’s face reports the highest mean number at 3.59 sec which highlights the variance of our sample (Table 32). The heatmap (Figure 31) represents the mean fixation duration for the fourth advertisement. The maximum number of viewer fixations is demonstrated in red (text, headline, UNICEF sign), followed by yellow and green (product and child). Although the child’s face gathered a small number of fixations, on the positive side, there was eye movement activity towards all the areas of interest for this ad.

![Image of Advertisement 6]

Figure 30: Mean fixation duration for Ad 6
<table>
<thead>
<tr>
<th></th>
<th>Headline (58)</th>
<th>Text (58)</th>
<th>CSR (58)</th>
<th>Face (58)</th>
<th>Product (58)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>1.26</td>
<td>1.34</td>
<td>.43</td>
<td>1.30</td>
<td>.71</td>
</tr>
<tr>
<td>Median</td>
<td>1.15</td>
<td>1.29</td>
<td>.39</td>
<td>1.09</td>
<td>.67</td>
</tr>
<tr>
<td>Minimum</td>
<td>.57</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Maximum</td>
<td>2.62</td>
<td>3.40</td>
<td>1.15</td>
<td>3.59</td>
<td>2.58</td>
</tr>
</tbody>
</table>

Table 32: Fixation duration – Advertisement 6

Figure 31: Visual representation (heatmap) of fixation duration for Ad 6
4.3.2.3. Average Gaze Plot

Since it is not possible to provide arithmetic values to demonstrate the participants’ scan path for each advertisement, we decided to provide six representative figures of the six advertisements as a means to illustrate the scan path followed by our subjects (Figures 32 to 37). In order to avoid noise, it was decided that for each advertisement we will provide the gaze plot that represents the viewings of four typical participants, two males and two females.

It is evident from the first ad’s gaze plot (fear inducing ad) that all four participants’ first point of fixation was the area around the lady’s head and only one of them (male) had a quick look at the product. None of the other participants looked at the product. Also, although we can see that the first fixation point is around the head; all participants moved their attention to the text very quickly but returned to the head-hands area very soon (Figure 32).

![Figure 32: Gaze plot for Ad 1](image)

Similar to the previous ad, when looking at the guilt inducing ad, all four participants’ first point of fixation is the child’s head. From then on, they quickly moved up to the
text, the tub, the product and then back to the child again. Only one participant (the male) looked at the eco sign (Figure 33).

Moving on to the third advertisement (disgust), we can see that three participants’ first fixation was at the baby’s face and only one participant fixated at the cockroaches first (female). Interestingly, the baby doesn’t catch much of the participants attention since their fixations are focused and are moving backwards and forwards onto the cockroaches, the text and a bit at the product (Figure 34).
The following gaze plot (Figure 35) is the most interesting among all. The fourth advertisement is the one that focused on promoting the product’s environmental attributes by showing five easy-to-understand eco-labels. Amusingly, none of the four representative participants looked at the eco-labels, just one of the participants quickly looked at the product and only one participant looked at the landscape. All participants emphasized in reading the text. This ad is the most packed ad among all with 22 words and 7 objects, but the participants had 6 seconds to view the ad and it is quite interesting that all of them focused on the text solely for such a long time without bothering with the objects (Figure 35).
Quite similar to the previous ad, the fifth ad illustrates the personal gains for the consumers when buying this green product (Figure 36). Again this is a packed advertisement which mirrors 25 words and 3 objects. All four participants started fixating from the hands area but they quickly moved on to the text. Only one participant returned to the hands and only one participant looked at the product. None of the participants looked at the EU eco-label. Again, all participants emphasized on reading the text without looking elsewhere.
The last advertisement which is about the cause-related appeals can be described as the most successful one since it is obvious that the participants’ gaze plot covered all the areas (Figure 37). All four participants’ first fixation point was the girl’s face. From then on to the headline in capital letters, down to the UNICEF logo, up to the CSR related text and then down to the product and up to the text again. This fixation path is characterised by consistency and clarity. All areas are covered, the 6 seconds were equally distributed among text and objects and the participants had the time to go back and have a second look at whatever caught their attention (the face and the headline).
Figure 37: Gaze plot for Ad 6
Chapter V: Discussion

5.1. Conclusions and Implications

Studies on environmental and social advertising represent a growing field. Investigating attention to the ad and purchase intention is a continuing concern within the advertising literature. Evidence from recent research papers suggests that purchase intention is influenced by consumers’ attention to specific advertising appeals (Biel and Bridgwater, 1990). There is a growing body of literature that recognizes negative emotional appeals like fear, guilt and disgust to be of great importance in either green or cause-related marketing (Shin et al., 2017; Hartmann and Apaolaza-Ibáñez, 2013; Kim et al., 2012). However, no previous study has investigated the negative emotions’ affect on consumers’ attention to the ad with the use of an eye tracker. Moreover, questions concerning the effectiveness of using environmental labeling and citizenship initiatives in green advertising have generated substantial attention and research. Yet, the use of environmental appeals vs. personal gains has not been investigated with an eye tracker lab experiment; neither the use of cause-related ads. As a result, we studied the aforesaid three dimensions of green/social advertising appeals using a mix-method approach of both qualitative self-report data and eye tracking data. The purpose of this dual methodology is to gain a better understanding on how consumers respond to various advertising appeals. The data provide adequate evidence both in favor and against past findings.

Our first aim was to test which type of negative emotions is most effective in grabbing the consumers’ attention and increasing their purchase intention. Juxtaposed Chang’s (2012) findings on guilt appeals, our results demonstrated that the guilt inducing ad is the one with the least effective appeal on the participants. The data also show that fear and disgust are equally disliked by the subjects. These findings are in contrast with Struckman-Johnson et al. (1990) who found evidence
that fear appeals are highly effective as they make consumers confront a threat but they are in agreement with and Shin et al.’s (2017) findings that green ads using fear appeals have a negative effect on attitude towards the ad. Those two studies’ opposite findings indicate the need to update advertising research regularly as the society and way of consuming and processing advertisements changes over time. Taking into account the eye tracking results for those three ads, participants fixated on the fear attributes of the first ad (butchered hands), the guilt attributes of the second ad (fake dead body) and disgust attributes of the third ad (cockroaches). The fact that the negative emotional appeals grabbed the participants’ attention does not indicate whether that was an outcome of their sympathetic or disagreeable posture. Our findings are strengthening Brennan and Binney’s (2008) view that negative feelings (like fear, guilt and shame) have been overused and overvalued by advertisers and lead to consumer passivity towards the social cause that is advertised.

The next three hypotheses of this thesis deal with gender’s diverse standpoint towards green advertising. Specifically, H1b predicted that women will have more positive attitude towards all the three ads that relate to negative emotions compared to men. The hypothesis was confirmed although the difference was very small, which points out that the results might differ if the sample is bigger or more diverse. Comparison of the findings with those of other studies confirms that indeed women are more prone and sensitive to environmental and social marketing (Carroll, 1979; Roberts, 1993; Smith et al., 2001). Similarly, H2a forecasted that attention to the cause-related ad would be greater for women compared to men. The results reflect those of Smith et al. (2001) who also found that there is indeed gender difference on CSR and green lifestyle. The authors conclude that because women often experience gender injustice, they become more sensitive towards ethical practice. In the same vein, this study has found that women will report higher purchase intention for the advertised product when looking at the cause-related ad compared to the other five advertisements (H2b). This result can be explained by Roberts’ (1993) previous findings that women are more likely to donate on charities compared to men.
On the other hand, we failed to confirm the next hypothesis (H3a) that young people will report higher attention towards the cause-related ad compared to the other five ads. A possible explanation for this might be that the cause-related ad is promoting the image of an African toddler, a message saying ‘donate a smile’ and a collaboration of our advertised product with UNICEF. Literature supports that women and especially mothers are more sensitive towards those advertising appeals (Roberts, 1993; Smith et al., 2001) and it is reasonable to presume that young people neither are parents nor is there a chance to become parents soon, consequently they do not have those sorts of concerns yet. In a like manner, hypothesis 3b, which predicted that young people will report higher purchase intention when looking at the cause-related ad compared to the other five ads, was also rejected. We believe the aforesaid interpretation to be adequate as a possible explanation for these findings too.

Additionally, the results show that there is no difference in participants’ attitude towards the ad for the advertisement that is focused on environmental gains compared to the one that emphasizes on personal benefits. Indeed, we found that participants’ attitude towards the two advertisements did not change at all despite the differences in both message appeals and visual context. Our findings are in contradiction with Royne et al.’s (2012) view that consumers report higher attention to the ad when looking at green advertisements that are focused on promoting personal gains juxtaposed pro-environmental appeals. Equally, the eye tracking data do not support Hartmann and Apaolaza-Ibáñez’s (2009) findings that consumers have more positive attitude towards visual stimuli representing nature scenes. We failed to find any difference between fixation duration at ad 4 which is representing nature scenery and ad 5 which shows human hands. The eye tracking data illustrate that participants spent the least amount of time (.41 sec) on the nature scenery compared to the other three areas (message, product and eco-labels) of the advertisement. Likewise, participants devoted nearly half a second (.60 sec) to look at the hands in ad 5. Thus, we found no evidence that there is indeed a preference in nature scenery images but we also failed to confirm that personal-gain appeals are more attractive. These eye tracking results are in accordance with previous eye tracking studies which support that consumers’ attention is firstly captured by the headline and then by the picture (Rosbergen et al.’s, 1997)
A central question of this thesis is whether the inclusion of the environmental benefits of an eco-friendly product in an ad affects consumer purchase intention. Unlike Royne et al. (2012), we found that consumers are more likely to purchase a green product when the advertisement gives priority to personal gains juxtaposed environmental benefits. A possible explanation is that consumers are puzzled with eco-labels if they don’t understand their meaning, thus these products are not very appealing (Juwaheer et al., 2012). For example, in a recent survey only 29 per cent of Europeans citizens said that they are aware of the meaning of eco-labels (Juwaheer et al., 2012). As Haramundanis (1996) reflects, eco-labels are useful to advertisers only if consumers are aware of their meaning; those icons cannot stand alone rather supporting text is needed in order to be understood and appreciated by consumers. The eye tracking data confirm that participants paid little or no attention to the eco-labels. For example, the first point of fixation analysis showed that none of the participants fixated onto the eco-labels first. Then, the fixation duration analysis demonstrates that participants spent half a second looking at the eco-labels (for ad 4) and .62 seconds at the EU eco-label (for ad 5). These findings are in accordance with Pickett et al.’s (1995) view that eco-labelling and eco attributes can convert products into unsuccessful goods if they are not understood by consumers. Therefore, we conclude that people are more confident with message appeals that promote their personal gains since buying decision is a balance between gains and losses (Ullman et al., 2012).

Lastly, in accordance with past literature (Shin et al., 2017; Werner and Alvensleben, 2011; Chan, 2001; Laroche et al., 2001), this study suggests that attitude towards all six ads and purchase intention will both be positive for green consumers, compared to non-green consumers. These findings broadly support the work of other studies in this area linking involvement with the environment with attitude towards green advertising and buying behaviour (Shin et al., 2017; Chen and Chai, 2010; Schuhwerk and Lefkoff-Hagius, 1995). For example, a recent study found that people increasingly show interest towards green consumption as reflected in their behaviour through more recycling, buying fewer non-environmental products, and turning off pointless lights (Chen and Chai, 2010). This trend towards environmental consciousness is mirrored in their buying behaviour (Shin et al., 2017), and there is evidence to support that green advertising is perceived differently by the group of
the participants classified as environmentally conscious (Schuhwerk and Lefkoff-Hagius, 1995). This thesis provides evidence that indeed consumers with high environmental involvement report higher purchase intention towards green products and more positive attitude towards green advertisements.

If environmental or socially related products are to become well accepted in the marketplace, it is important to comprehend the specific factors, or combination of factors, that should be included in advertising developed to promote such products. As Royne et al. (2012) quote the key decision when promoting a green product is the type of message appeal to use and how to appropriately frame this message. For example, should the message framing stress a feeling of threat, should it highlight the product’s environmental benefits or should advertisers emphasize on the product’s attributes that are more beneficial to the consumer (e.g., value, ease of use)? In short, framing the advertising message based on the consumers’ greatest perceived gain is crucial as advertising effectiveness is fundamentally dependent on consumers’ attention towards the ad (Haley, 1990).

Marketers understand that an ad must appeal to the intended consumer for that consumer to get interested in the advertised product, view that product in a positive manner, and, eventually, increase the consumer desire to buy that product. Consequently, advertisements use a range of benefits to appeal to the intended target consumer (Royne et al., 2012). An understanding of which appeals to use when advertising a green product is particularly important because although consumers often desire products with environmental benefits (Carlson et al., 1993), their motivations may stem from different areas.

Our findings will be of interest to advertising agencies and marketing practitioners in terms of framing the message and imagery according to their target audience. For example, we found that ecolabelling is not considered an appealing tool as it creates some sort of confusion if the audience is not aware of the labelling meaning.

Additionally, the findings reported here shed new light on how consumers perceive negative emotions in green advertising as we found that positive attributes are more appealing compared to negative attributes. This is in line with past literature which supports that the ‘well baby’ appeals should be applied in environmental marketing
compared to the ‘sick baby’ appeals that had been used for many years by marketers (Ellen et al., 1991; Russell et al., 2017). Practitioners can benefit from our findings by shifting their marketing campaigns away from a threat creation model and get closer to a success creation model of advertising.

Also, this study provides some great practical suggestions for advertisers; firstly, viewers pay attention to the text, so copy should be well prepared and tested; secondly, it looks like central items are more appealing to viewers, so advertisers need to place their strongest selling point close to the center of the ad; and thirdly, icons should be explained with text in order to work, otherwise they puzzle the viewers.

This research contributes to our understanding of both green and cause-related advertising. We found that purchase intention is higher when subjects are exposed to the cause-related ad but buying behavior does not depend on the environmental or personal attributes advertised. This is a finding of great importance to marketers as it rejects past findings that buyers are more interested in knowing what they will personally gain when buying an eco-product.

These results add to the rapidly expanding field of experimental marketing or neuromarketing as they originate from a mix-match of qualitative and experimental methodologies. Visual attention to green advertising is very significant for advertisers as it is believed that viewers who like the ad, like the product and will ultimately like the brand (Biel and Bridgwater, 1990).
5.2. Research Limitations

Although our findings shed some light into the green advertising strategies, we acknowledge some limits. For example, the laboratory setting, the forced exposure to the ad, and the immediate response measures limit the generalizability of this study.

Another limitation is the amount of time exposed to the ads (six seconds for each ad) which affects the average fixations duration on the advertisements. Previous studies have found that the size of the advertisement influences participants’ looking times (Rayner et al., 2001). We used six same size advertisements, thus we cannot validate whether or not that is the case for our study.

Another concern is the study’s sample synthesis. We recruited university students given that they have a flexible schedule, availability during the day and they are easy to lure into participation. However, students are a very specific group of people, with a particular socioeconomic background and mainly of young age; therefore they tend to be a non-representative sample, therefore it is not valid to make broad generalizations. If the diversity of participants is not analogous to the diversity of the overall population, it is impractical to identify whether results are universal.

Although purchase intention was measured with a four items construct that is widely used in academic research (Moon et al., 2008), this study is limited by the lack of information on product price. Purchase intention results might differ when a product price is added to the advertisement.

It is possible that the most important limitation lies in the fact that this study focused only on one specific product with which participants were unfamiliar with; even though product type has been identified as an important factor in green and social advertising research (Royne et al., 2012). Also, it is believed that when individuals have no experience or knowledge of a product, they tend to develop an evoked set that is predicated on informational cues in the product claims and some attributes that might include packaging and price (Zeithaml 1988). The product used in this research was an unknown product and no information about price or packaging was included in the accompanied advertisements. It is possible that participants’
behaviour would differ if those attributes were included in the advertisements or if they were familiar with the product itself.
5.3. Further Research

Future research should examine how attitudes may evolve over time. Also, participants viewed each ad only once; in real life consumers confront with the advertisements often as part of the brand’s advertising campaign. Therefore, it would be interesting to examine how evaluations and purchase intention change after a number of exposures to those ads.

Moreover, future research could investigate whether conditions exist in which negative emotional appeals such as fear, guilt and disgust, might be noticed more positively, for example in the context of public sensitization campaigns rather than merely advertising messages.

Another caveat is the fact that we used a fictitious product with which participants had no direct experience. Although this method was deliberately used in order to avoid product awareness, it might be the case that brand or product familiarity may possibly affect participant perceptions. Therefore, future research could use an eye tracking technique to test a real-life green product from a well-known brand and cross check for similarities and differences.

Because of the financial costs involved in conducting eye tracking experiments, recruiting an adequate number of people who were willing to visit a lab to participate in an experiment was difficult. Future research should conduct experiments with a larger and more diverse sample, for example a group of people that is representative of the overall population.

Future studies should explore whether the effectiveness of green and cause-related advertising appeals depend on the product type, for example, there is no evidence if gentle effect type of environmental products (e.g. hand sanitizers) should tailor their advertising differently compared to durable eco products (e.g. cars).
References


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Appendices

Appendix 1

PART A / Α Μέρος

DEMOGRAPHICS / ΔΗΜΟΓΡΑΦΙΚΑ ΣΤΟΙΧΕΙΑ

1. Α. Άντρας….. Β. Γυναίκα....

2. Ποια είναι η ηλικία σας;
   Α. 18-25.......... Ε. 56 και πάνω........
   Β. 26-35..........
   Γ. 36-45.......... Δ. 46-55.............

3. Μορφωτικό επίπεδο (τοποθετείτε μόνο το υψηλότερο πτυχίο που κατέχετε).
   Α. Δημοτικό........
   Β. Γυμνάσιο........
   Γ. Λύκειο...........
   Δ. ΙΕΚ ή Κολλέγιο......
   Ε. Τ.Ε.Ι ή ΑΕΙ..............
   Στ. Μεταπτυχιακό....
   Η. Διδακτορικό......

4. Ποια είναι η οικογενειακή σας κατάσταση;
   5. Α. Παντρεμένος/η...
   6. Β. Άγαμος/η............
   7. Γ. Διαζευγμένος/η...
   8. Δ. Χήρος/α............

9. Έχετε παιδιά;
   Α. Ναι ...... Β. Όχι......
10. Ποια είναι η σημερινή σας επαγγελματική κατάσταση;

Α. Άνεργος
Β. Διευθυντής τμήματος εταιρείας
Γ. Υπεύθυνος τμήματος εταιρείας
Δ. Προσωπικό εταιρείας χωρίς διευθυντικές αρμοδιότητες

Appendix 2

PART B / Β Μέρος
Διαλέξτε μόνο μία απάντηση
Βλέποντας τη συγκεκριμένη διαφήμιση ένιωσα:

1. Έκπληξη
   Έκπληκτος Έκθαμβος Ξαφνιασμένος

2. Χαρά
   Χαροφέροντας Ευχαριστώντας Ευτυχισμένος

3. Δυσφορία
   Δυστυχώντας Κακόκεφος Αποθαρρυμένος

4. Θυμό
   Θυμωμένος Εξαγριωμένος Εξοργισμένος

5. Φόβο
   Φοβισμένος Τρομοκρατημένος Τρομαγμένος

6. Απατεία
   Απατισμένος Ένιωσα αποστροφή Ένιωσα μεταστροφή

7. Περιφρόνηση
   Καταφρονητικός Περιφρονητικός Σαρκασμό
Appendix 3

PART C / Γ Μέρος
Δώστε μια μόνο απάντηση σε κάθε ερώτηση

Α. Με βάση τις προσωπικές σας εμπειρίες ως καταναλωτής τα τελευταία χρόνια, οι εταιρείες προϊόντων που αγοράσατε συμπεριφέρθηκαν:

1. Με πολύ ηθικό τρόπο..............................
2. Με κάπως ηθικό τρόπο..............................
3. Ούτε το ένα ούτε το άλλο......................
4. Με κάπως ανικικό τρόπο.........................
5. Με πολύ ανικικό τρόπο.........................

Β. Με βάση αυτά που έχετε ακούσει από άλλους τα τελευταία χρόνια, οι εταιρείες προϊόντων συμπεριφέρθηκαν:

1. Με πολύ ηθικό τρόπο..............................
2. Με κάπως ηθικό τρόπο..............................
3. Ούτε το ένα ούτε το άλλο......................
4. Με κάπως ανικικό τρόπο.........................
5. Με πολύ ανικικό τρόπο.........................

Γ. Με βάση τις προσωπικές σας εμπειρίες ως καταναλωτής τον περασμένο χρόνο, περιμένετε οι εταιρείες προϊόντων τον επόμενο χρόνο να συμπεριφέρθούν:

1. Με περισσότερο ηθικό τρόπο......................
2. Το ίδιο με περυσι...................................
3. Με πιο ανικικό τρόπο.........................

Δ. Με βάση αυτά που έχετε ακούσει από άλλους ή από μέσα ενημέρωσης τον περασμένο χρόνο, περιμένετε οι εταιρείες προϊόντων τον επόμενο χρόνο να συμπεριφέρθούν:

1. Με περισσότερο ηθικό τρόπο......................
2. Το ίδιο με περυσι...................................
3. Με πιο ανικικό τρόπο.........................
Δώστε μια μόνο απάντηση σε κάθε ερώτηση

1. Θα αγοράσω αυτό το προϊόν
   A. Διαφωνώ απόλυτα
   B. Διαφωνώ σε μεγάλο βαθμό
   C. Διαφωνώ σε μικρό βαθμό
   D. Οφτε συμφωνώ οφτε διαφωνώ
   E. Συμφωνώ σε μικρό βαθμό
   F. Συμφωνώ σε μεγάλο βαθμό
   G. Συμφωνώ απόλυτα

2. Αν είχαν επιλογή οι φίλοι μου θα αγόραζαν αυτό το προϊόν
   A. Διαφωνώ απόλυτα
   B. Διαφωνώ σε μεγάλο βαθμό
   C. Διαφωνώ σε μικρό βαθμό
   D. Οφτε συμφωνώ οφτε διαφωνώ
   E. Συμφωνώ σε μικρό βαθμό
   F. Συμφωνώ σε μεγάλο βαθμό
   G. Συμφωνώ απόλυτα

3. Υπάρχει μεγάλη πιθανότητα να αγοράσω αυτό το προϊόν
   A. Διαφωνώ απόλυτα
   B. Διαφωνώ σε μεγάλο βαθμό
   C. Διαφωνώ σε μικρό βαθμό
   D. Οφτε συμφωνώ οφτε διαφωνώ
   E. Συμφωνώ σε μικρό βαθμό
   F. Συμφωνώ σε μεγάλο βαθμό
   G. Συμφωνώ απόλυτα

4. Θα ήθελα να προτείνω αυτό το προϊόν στους φίλους μου
   A. Διαφωνώ απόλυτα
   B. Διαφωνώ σε μεγάλο βαθμό
   C. Διαφωνώ σε μικρό βαθμό
   D. Οφτε συμφωνώ οφτε διαφωνώ
   E. Συμφωνώ σε μικρό βαθμό
   F. Συμφωνώ σε μεγάλο βαθμό
   G. Συμφωνώ απόλυτα
Appendix 5

PART E / Ε ΜΕΡΟΣ

Δώστε μία μόνο απάντηση σε κάθε ερώτηση

Α. Πιστεύω ότι αυτή η διαφήμιση είναι πειστική.

1. Πολύ πιθανόν... 2. Πιθανόν... 3. Κάπως πιθανόν... 4. Σχεδόν απίθανο... 5. Απίθανο.

Β. Πιστεύω ότι αυτή η διαφήμιση είναι έξυπνη.

1. Πολύ πιθανόν... 2. Πιθανόν... 3. Κάπως πιθανόν... 4. Σχεδόν απίθανο... 5. Απίθανο.

Γ. Πιστεύω ότι αυτή η διαφήμιση δείχνει τις ιδιότητες του προϊόντος.

1. Πολύ πιθανόν... 2. Πιθανόν... 3. Κάπως πιθανόν... 4. Σχεδόν απίθανο... 5. Απίθανο.

Δ. Αυτή η διαφήμιση είναι ευχάριστη.

1. Πολύ πιθανόν... 2. Πιθανόν... 3. Κάπως πιθανόν... 4. Σχεδόν απίθανο... 5. Απίθανο.

Ε. Αυτή η διαφήμιση μεταδίδει πληροφορίες.

1. Πολύ πιθανόν... 2. Πιθανόν... 3. Κάπως πιθανόν... 4. Σχεδόν απίθανο... 5. Απίθανο.