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Διπλωματική Εργασία

THE GREEN BRAND:
A CASE OF IMAGE, SATISFACTION AND TRUST.

του
ΑΛΕΞΑΝΔΡΟΥ ΚΙΛΜΠΑΣΑΝΗ
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Υποβλήθηκε ως απαιτούμενο για την απόκτηση του μεταπτυχιακού
dιπλώματος εξειδίκευσης στη Διοίκηση Επιχειρήσεων
με εξειδίκευση στο Μάρκετινγκ

Θεσσαλονίκη, Σεπτέμβριος 2012
ACKNOWLEDGMENTS

I would like to thank my professor Andreas Andronikidis for his accurate consultancy, his arduous assistance and his belief in this work. Special thanks to professor Christos Vassiliadis for his insightful remarks and thanks to all the people, students and professors that took part in this survey by answering my questionnaire.

I would also like to thank my family and my close friends for their keen interest in my progress, their enthusiasm and their unlimited moral support during the harsh times.

This thesis is for you!
ABSTRACT

Green Marketing is a concept that has been around for decades, but not holistically implemented even until today. Regardless of the increased environmental awareness among consumers, the market shares of green products remain low. Scientific literature suggests that there should be more effort on a brand and corporate level towards a green approach, effort that exceeds the current use of adding green technical attributes to products, thus creating an opportunity for green branding.

This thesis focuses on testing a model and determining the importance of the “Green Brand Image”, “Green Satisfaction” and “Green Trust” factors in driving Green Brand Equity on electronics products for Greek consumers. Based on previous work that has established a suggested framework for green brand equity, a questionnaire was given to a target sample of young Greek people aged 18 and over. The results imply that the structure of the suggested model is not far from being correct, but should probably be improved before wider application. Green brand image is shown to greatly influence green satisfaction and trust. It is suggested to firms wanting to build a green brand for themselves, that they enhance their position in these three categories, by investing in proper education of consumers, building authentic, environmentally sustainable operations, products and customer experiences and communicating their benefits, just as they would do with any other product.
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1. Introduction

1.1. Green Marketing today

During the latest decade the concept of Corporate Social Responsibility (CSR) has become more relevant than ever. From financial frauds to human exploitation, sensitive consumers are fed up with the image of a greedy corporation that takes its “for-profit” definition a bit too seriously. Given the accessibility of the Internet and the popularity of social media, consumers and activists feel empowered to call out companies on bad practices and influence people worldwide.

One very important field that calls for urgent responsible action is the management of our planet’s limited resources. The rising demand for exhaustible materials, the heavy use of non-renewable energy, uncontrollable deforestation and the production of big amounts of pollutive waste have all put a strain on our natural ecosystem. Not only are our resources limited, but the way we use them also negatively affects our future. Climate change experts explicitly warn us about the severe consequences of excessive emissions of greenhouse gases to the atmosphere and their disastrous effect on tomorrow’s landscape.

Whether people believe in climate change or not, some environmental impacts due to human actions can be noticed in everyday life, and are reported by the media, bringing up the environmental issue to peoples’ minds even more (Walsh, 2012). People expect solutions from governments and corporations. Among other political initiatives to protect the environment, the European Union in 2007 declared the european energy policy that set specific targets to the greenhouse gas emission levels and energy use by the EU’s country members. European countries and corporations will have to limit their emissions and energy use to the desired levels (Wikipedia, 2010). Marketers have already been targeting environmentally-concerned segments through a series of products that are friendly to the environment (green products), either because of the way they are produced or consumed, thus giving rise to the term Green Marketing.

Plenty of environmentally friendly products, like green cars, organic foods, green cleaning products and green electronic devices have appeared on shelves, only to obtain reportedly low market shares against their conventional competitors in most cases (Clifford & Martin, 2011a). Such products usually carry a higher price tag and may not
be as effective in their intended use as conventional products. One of the reasons though that is being noted by analysts for the green products’ low adoption levels, is that consumers *might* not have understood what consists a certain green product or in what ways it benefits the environment compared to its conventional competitors (Makower, 2011). Lack of trust also comes into play, since a lot of consumers may also be suspicious of a phenomenon called “Greenwashing”. Greenwashing is achieved when products and services are given an environmentally-friendly spin that’s mostly superficial, only to gain sympathy from consumers and stakeholders (Wikipedia, 2012). With no real environmental concern behind the offering’s design, such green claims may even backlash and cause the bitterness of consumers. It seems that for green marketing to be effective, a brand must have environmentalism rooted in its values and its operations. As reported on a New York Times-owned blog, independent manufacturers that attract niche, environmentally concerned, customers fare better, keeping or increasing their sales, because their customers trust them and remain loyal to them (Clifford & Martin, 2011b).

Of course, consumers buy solutions to their problems and a product’s green features alone is not reason enough to buy a product for most people. P&G, PepsiCo, Nike, McDonald’s and other savvy marketers are keen on adopting processes that reduce energy, waste and lessens costs. These environmentally-friendly techniques are not pursued just for “greening” their brands or claiming environmental benefits, but they make for good investments. The companies that adopt such processes in their daily operations have saved millions of dollars (Makower, 2011). Even because of their environmental or financial rewards, there seems to be a need for companies to act sustainably on a brand level and not treat their green attempts as just another product for specifically targeted markets (Uren, 2011).

1.2. Contribution to Science

This thesis further contributes to literature on green branding. It examines the application and validity of a suggested framework for consumer-based Green Brand Equity of electronics brands on a sample of Greek young consumers. It does so by helping define the importance of Green Brand Image, Green Satisfaction and Green Trust in driving Green Brand Equity. It also features extensive literature review covering topics like segments of green consumers in Greece and abroad, Integrated
Marketing Communications, brand equity and applies the conclusions reached to the topic of green branding.

1.3. Thesis outline

This thesis begins with a literature review that showcases recent research on the topic of Green Marketing, the attitudes and beliefs of green consumers, and the importance of Integrated Marketing Communications (IMC) in green corporate initiatives. The insights from the literature review clearly point to a need for environmentally-friendly and sustainability-oriented corporate cultures, structures and brands. This is why it was considered important to study the concept of brand equity applied to green marketing. The basics of consumer-based Brand Equity are covered and the work of Taiwanese professor Yu-Shan Chen on Green Branding and its drivers is presented extensively. The questionnaire he had published on previous works was used on a sample of young, Greek people. The third chapter explains the methodology behind the research conducted and introduces the basics of Structural Equation Modeling (SEM). The answers from the questionnaire were processed on the SPSS AMOS software and the results of the research, as well as their statistical significance, are presented in the fourth chapter. Finally, conclusions are reached based on the results and the insights from the literature review, and suggestions for further research are also made.
2. Literature Review

2.1. Green Marketing & the Green Consumer

The American Marketing Association’s (AMA) definition of Green Marketing gives it three dimensions. According to the AMA, Green Marketing is (S. White, 2010):

1. The marketing of products that are presumed to be environmentally safe (Retailing dimension)
2. The development and marketing of products designed to minimize negative effects on the physical environment or to improve its quality (Social marketing dimension)
3. The efforts by organizations to produce, promote, package and reclaim products in a manner that is sensitive or responsive to ecological concerns (Environmental dimension)

It is obvious from the definition that green marketing has as many P’s as conventional Marketing. Green marketing is not only about a product with less or recyclable packaging, but about every procedure behind its production, distribution and promotion being done in an environmentally friendly way.

In order to explain the current state of green marketing, it is considered important to understand the needs, attitudes & motives of consumers. In a research based on Portuguese people aged 18 and over, nine factors proved to be important when profiling consumers. These factors are (Paço & Raposo, 2008):

1. Environmentally friendly buying behavior (tendency to prefer environmentally friendly products).
2. Environmental activism (actively looking for information on environmental issues and participating in related activities).
4. Concern over issues like pollution and environmental degradation.
5. Actively reusing items, recycling what’s possible and encouraging others to do so too.
6. The belief that the environmental situation can be improved with individual and collective actions and that the environment won’t “sort itself out”.
7. Attempt to reduce energy and waste in their daily activities.
8. Willingness to pay higher taxes and premium prices to consume more sustainably.

9. Skepticism towards environmental claims.

Even though the authors of the paper express some concern over the reliability of the 6th and the 9th factor, these variables can be useful points of reference when profiling and segmenting consumers according to their environmental “readiness”. It is interesting to note however, that a pro-environmental attitude in life is not always linked to a green purchasing behavior. A survey among Cypriots, aged 15 and above, has shown that an environmentally friendly attitude is most likely to be observed in people that value the common good over personal, temporary inconveniences, look at the long-term, instead of the short-term effects of their action, are lawful, politically active and have high ideals and values (Leonidou, Leonidou, & Kvasova, 2010).

Skepticism and income and education levels are found to be critical factors, when considering the willingness to adopt and pay higher prices for green goods. Research about renewable energy products, as perceived by students in Freiburg, has showed that even though students have positive attitudes on green power options, their lack of knowledge confuse them about the capabilities of the sustainable service and the real effort and cost needed to switch from a conventional power provider to a green power one (Gossling & Kunkel, 2005). Many deemed the sustainable option as more expensive, even though realistic data showed that it’s not. Students were also expecting green energy providers to deliver energy exclusively from renewable sources. They were keen on certifications and transparency to make sure that the switch was indeed worthy.

Similarly, a case study on marketing attempts of renewable energy providers in Australia showcases that consumers lack education on the differences and the payoffs of renewable energy versus conventional energy (Rundle-Thiele, Paladino, & Sergio Antonio G. Apostol, 2008). Marketing campaigns should insist on educating the consumer about the superior value that green energy offers. Since the benefits of ecological protection are long-term and are not reaped specifically by the customer, the product should defend its higher price tag and sell based on its own unique attributes and the value it offers to the consumer against the competition. The same case study concludes that the attitudes and behavior of consumers on environmental issues can
differ and green marketers should focus on fine-tuning their marketing mix and targeting their campaigns appropriately to certain target segments.

Since every demographic category has a different profile, consumers have different attitudes and inclinations to buy green products. Research in Australia has shown that while most consumers want companies to prioritize pollution reduction over their own profitability, different demographics perceive the quality/price trade off in a different way (D’Souza, Taghian, & Khosla, 2007). Some groups will prefer more expensive green products of higher quality than the conventional ones, while others would simply prefer green products even if they are of lower quality and higher price. Marketers need to segment their customers and understand their quality/price expectations in relations to their environmental attitudes and create value either with higher quality products or lower prices. Additionally, a manufacturer has to be deemed green and socially responsible as a whole, creating trust for the environmental friendliness of its brand.

Being green alone is hardly a selling point, at least to the majority of people. “Environmentally friendly” behaviors can be expressed in a plethora of ways and such behaviors can imply various motives. A great example of this is when the Clorox company discovered an untapped segment of “chemical avoiding naturalists”. Instead of simply touting sustainability, Clorox focused on the naturalness of its products, creating value its competitors lacked (Lee & Sobol, 2012). Instead of focusing on the environmental sensitivities of certain demographics, Clorox in this case performed a needs-based segmentation and manufactured a product that solves the problem in a green way.

In the end, marketers should know that using socio-demographics to segment green consumers is only one aspect of the problem. Environmental consciousness of an individual can be approached as knowledge, attitude and behavior. In extensive nationwide research in the UK, it was supported that in general, females demographics, married demographics, highly educated ones, people with more children and people in higher social classes show increased environmental attitudes (Diamantopoulos, Schlegelmilch, Sinkovics, & Bohlen, 2003). However, no socio-demographic background could guarantee environmental knowledge, or could easily predict the environmental behavior of the segment. This research is key in showing that there is no
certain demographic segment that consists the “green consumer” who will consume greener products just to cover his environmental needs (Rex & Baumann, 2007).

2.2. Green in Greece

One of the most recognized and popular green products in Greece may be organic foods. Confirming previous literature work, researchers attempting to create segments of organic food consumers in Greece saw that level of education is the key factor between motivated organic food consumers and unaware conventional food ones (Fotopoulos & Krystallis, 2002). The research was conducted through a series of questionnaires and personal interviews with about one thousand food-purchase decision-makers in families all across Greece (Athens, Thessaloniki, Crete and other urban regions). The study instruments were designed to measure not only attitudes, but also real behaviors and the results were cross-checked with sociodemographic and lifestyle variables (food-purchase behavior, diet habits, levels of educations, income levels, use of media etc.). The research concluded to three big segments of “non-aware non-buyers”, “aware non-buyers” (the biggest segment) and “aware buyers”. As shown, a more sophisticated lifestyle and higher personal income are important factors and when it comes to food consumption. Country of original plays an important role, but this doesn’t of course apply to all green products. It is reported that buyers of organic buyers are mostly indifferent to advertisements and trust friends and family for recommendations of high-quality organic food. The market is considered generally uneducated when it comes to actually knowing matters of organic farming, despite of high reported awareness. Non-buyers also reported the lack of available, branded, organic products at points of purchase as a reason for not buying.

Not just the sheer choice of organic food, but the willingness to pay higher prices for such food is heavily influenced by the consumers’ trust towards the product’s quality and the security of making the healthy choice (Krystallis & Chryssohoidis, 2005). Certifications for country of origin and traditional methods of production enhance the levels of trust and perceptions of quality and security. For some organic products willingness to pay increases with the presence of trusted, branded organic products. This research was conducted in three supermarkets across Athens, approaching people with real awareness of organic production asking them various sociodemographic criteria,
Likert-scale questions about their degree of agreement with criteria that influences them in their food purchases, merchant trust and questions about buying behavior when it comes to organic products.

Environmentally-friendly purchases is just a behavior, but the motives may differ even among environmentally-conscious groups. Continuing on the work of Fotopoulos & Krystallis in 2002, research has shown that in general, health consciousness and personal hedonism precede environmental consciousness when it comes to choosing organic food among “aware buyers” (Chryssohoidis & Krystallis, 2005). For example, some segments of aware organic buyers (mostly young, independent and well-educated) value individualism more than the sense of belonging, while that is not the case with families. Like above, low availability of trustful organic food brands leads to different behaviors from various segments, some of them not putting the effort to look at other stores for organic food.

Similarly, a big nationwide survey defines three big groups of consumers based on how environmentally aware they are. There are the ones who are absolutely aware (29% of the sample), the concerned (65% of the sample) and the indifferent (6%) (Avlonitis & Avlonas, 2012). As already observed in most researches, the younger and higher educated consist the segment with the most environmentally friendly behaviors (paying premiums for green products, recycling and trying to reduce its carbon footprint). People aged over 55 and those without college degrees consist the indifferent segment (participating in no environmentally friendly activities), while the rest are people of every age and educational background who proceed to taking environmentally friendly actions only occasionally. This research also shows that while Greeks are becoming increasingly aware about environmental issues and try to partake in environmentally friendly actions, their dire economic situation affects the purchasing of expensive green goods. Another interesting conclusion is that few consumers can recall environmentally friendly brands or companies that take action in preserving the environment. They also consider advertisement, methods of production and personal experience with the product the most important requirements to believe in the product’s green intentions, while most of them don’t know whether their green products are certified or not. Satisfactory levels of trust towards a brand’s advertising claims were also reported.
It is natural to conclude from all of this that the very-general profile of environmentally-conscious consumers in Greece doesn’t differ much from people abroad. The most aware green consumers are **young people** in their 20s up until their early 40s, of **middle and upper classes, highly educated** and with higher incomes (Avlonitis & Avlonas, 2012; Fotopoulos & Krystallis, 2002). The target market of products that promise healthier, safer and more sustainable choices consists of mostly **women**, caring for their families (Laroche, Bergeron, & Barbaro-Forleo, 2001). The motives behind the various behaviors can vary though (Chryssohoidis & Krystallis, 2005; D’Souza et al., 2007) and even the best intentions towards environmental purchases can be rendered useless if consumers are confused about the capabilities and the value of the product (Gossling & Kunkel, 2005; Rundle-Thiele et al., 2008). For effective segmentation for marketing green products, demographic data should be cross-checked with plenty of psychographic data that includes environmental knowledge, attitudes and behavior (Diamantopoulos et al., 2003; Paço & Raposo, 2008). However, these points of view generally assume that certain kinds of green customers will drive demand for environmental products and that companies will just respond to it. There is no segment of green consumers big and coherent, behavior-wise, enough to be able to guarantee demand for green products (Rex & Baumann, 2007).

### 2.3. The case with Greenwashing

The observed consumer confusion about the effectiveness of green products and the rationalization of the higher price tag is easy to understand when one considers past lackluster green actions by companies. As reported on the Wall Street Journal, a study done by environmental marketing company “TerraChoice” found that more than 95% of all consumer products examined contained at least one inauthentic environmental claim, whether that was an unproven, vague environmental claim, misleading labeling passing as third-party certification or misleading language (Bounds, 2010). Products guilty of greenwashing include plastic baby bottles and toys which claim to be rid of dangerous toxic substances. Apparently though, the percentage of authentically green products have increased since 2007.

Research has highlighted that public commitment to environmental policies and actual implementation in companies are two different things. In examining commitment and
implementation of environmental policies across companies of specific industries (service sector, manufacturing, oil & gas, chemical), it was shown that all companies show similar behavior to environmental commitments and the policies included, but demonstrated variably low rates of actual implementation of such policies (Ramus & Montiel, 2005). While companies in all industries promise to conform to some kind of sustainable action, the policies actually implemented (if at all) are probably those that are more economically incentive than the others. Environmental commitment may be just positive spin, or greenwash, when there is no (short-term probably) economic motive for a company to implement these policies.

Given the inconsistencies that are noted between commitments and implementations, it’s only natural for consumers to feel distrust towards the actual intentions of corporate social responsibility. However, there are communication strategies that can be used to lessen the regret over corporate hypocrisy. It has been proved that positive claims by a company, regarding its Social Responsibility regime, that are not accompanied by suitable action, lead to increased hypocrisy perceptions (Wagner, Lutz, & Weitz, 2009). Increased hypocrisy perceptions lead to negative attitudes towards the firm. A reactive strategy (CSR claims that succeeded irresponsible corporate action) still leads to high hypocrisy perceptions, but not as high as claims that preceded irresponsible action. In such a case, the CSR claims of a company should include specific actions and examples of positive actions to mitigate the damage. Interestingly, in both cases a company is better advised to provide the public with moderately negative CSR claims and then refute them with counterarguments, undermining their validity.

While corporate social responsibility inconsistencies may damage the consumer attitudes towards a brand, marketers should take into account that good CSR behavior can compliment the attitudes towards the brand and positive attitudes build good brand equity. In a survey done on 300 Spanish women, who are responsible for household purchases, about the importance of environmental performance, it was found that those women who have read the provided material on the environmental performance of a washing powder held positive attitudes towards the brand (Rios, Martinez, Moreno, & Soriano, 2006). It is also concluded that the ecological attributes of the product in terms of affecting attitude are secondary next to the attributes related with the functional performance of the product and that environmental performance of the product is easier
trusted when certified by an independent third-party organization. The researchers insist on the need for a more efficiently implemented certification process that simplifies the communication of reliable environmental information of the product to the consumer.

2.4. The importance of Integrated Communications

Since trust, reliability and raising awareness is valued by consumers when it comes to green products, one could suggest that brands need to take a holistic approach to their green marketing mix and Integrated Marketing Communications (IMC) is one of the most suitable approaches in such occasions. Integrated Marketing Communications is defined as “careful integrations and coordination of the company’s many communication channels to deliver a clear, consistent and compelling message about the organization and its products” (Armstrong & Kotler, 2011). IMC concentrates all of the brand’s messages and employs all mediums in the most suitable ways in order to deliver the message and explain to the consumer how the company and its products will meet his demands and create value in his life. The mediums though this can be achieved are seen in Fig. 2.4.1.

![The Promotional Mix](image)

*Figure 2.4.1: Integrated Marketing Communications mix (Belch & Belch, 2003)*

It is clear therefore, that effective use of IMC can greatly help consumers understand what, where and why to buy green products over conventional ones. These methods could be used to communicate the message of a brand that cares effectively for the environment. This idea is not something radical and has been talked about for over a decade, but has, unfortunately, found little practice by major marketers interested in green marketing.

It has been noted that advertisements with green claims that are not integrated with other tangible environmental messages from the same brand usually backfire on the
company, since they are met by distrust and deemed dishonest (Carlson, Grove, & Kangun, 1993). Carlson et al. used a framework conceived by Nowak & Phelps (1994) to perform environmental analysis on a number of advertisements with green claims and judge how integrated they were (Fig 2.4.2). In order for the advertisements to be considered integrated, they had to include at least one image-oriented and one behavior-oriented tool.

The results showed that most of the advertisements analyzed were not integrated, focusing heavily only on image-oriented tools, while those that were integrated were only limited to using two tools (Carlson, Grove, Laczniak, & Kangun, 1996). Since this analysis took place almost 20 years ago, it misses a lot of IMC tools now available to marketers, for example internet marketing. Nevertheless, the moral remains the same that the more integrated, as in the more synchronous use of IMC tools, a campaign is, the more effective it will be motivating consumers to understand the unique value offered.

However, in a series of Danish workshops and projects attempting to define guidelines to communicating green intentions, it was found that environmental issues are very

![Framework for integrated environmental communications (Nowak & Phelps, 1994)](image)

*Figure 2.4.2: Framework for integrated environmental communications (Nowak & Phelps, 1994)*

**Adapted from Nowak and Phelps 1994**  
**Environmental Claim-Type Classifications from Carlson, Grove and Kangun 1993**
difficult to communicate. The scientific knowledge of environmental issues is always evolving. Consumers, even though aware and concerned, know little about the subject and the implications discussed are long-term and non-visible. The government is also trying to tightly regulate environmental claims, further limiting the tools available to corporate executives trying to talk green to consumers. (Nielsen, 2001). Among others, the manuals from Denmark recommend companies to make sure the environmental claims are relevant to customers’ needs and that both parties understand the environmental issue. They should also support their environmental claims with documentation. The use of eco-labels, as encouraged in Denmark for example (Nielsen, 2001), that inform the consumers about the green product attributes, although necessary are not enough. Product attributes are part of the product, when green marketing should be so much more, including convincing promotion of the product (Rex & Baumann, 2007). IMC gives a current marketer a plethora of tools to enhance the environmental concern of a brand across many platforms and inform consumers in better and more engaging ways.

Of course effective branding goes deeper than just skillful IMC. Building a strong brand identity, as in strong brand associations, shouldn’t be based just on sheer advertising, viral videos or great PR. As George & Michael Belch put it, brand identity “encompasses the entire spectrum of consumers’ awareness, knowledge, and image of the brand as well as the company behind it. It is the sum of all points of encounter or contact that consumers have with the brand, and it extends beyond the experience or outcome of using it.” (Belch & Belch, 2003). In order for this to be achieved, marketers should look at their whole marketing mix and orchestrate it so that it offers coherent value to the consumer. However, IMC is crucial because it helps communicate the brand’s message holistically across all mediums and consumer touchpoints.

2.5. The Green Brand

A green brand is defined as “a specific set of brand attributes and benefits related to the reduced environmental impact of the brand and the respective consumer perception as being environmentally sound” (Hartmann, Ibanez, & Sainz, 2005; Papista & Krystallis, 2012). It is evident from all of the above that a green brand should ideally evoke knowledge among consumers about the brand’s green initiatives, as well as positive
associations about its quality and the benefits it provides to its customers. One of the most suitable approached to estimate such awareness among consumers is by using **Consumer-Based Brand Equity (CBBE)**.

Keller defines consumer-based brand equity as “the differential effect of brand knowledge on consumer response to the marketing of the brand” and further explains it as the positive (or negative) reaction consumers have to a certain branded product over a similar product that’s unbranded (Keller, 1993). For example, a tablet PC may sound appealing to an unspecified group of people. If an iPad sounds more appealing than an unbranded tablet PC, that’s positive brand equity for Apple. And if a tablet by a generic, unknown manufacturer sounds less appealing than an unbranded tablet PC, then this is negative brand equity for the manufacturer.

As bolded on the definition, brand knowledge plays an important role in the estimation of CBBE. Brand knowledge includes whether consumers recognize and remember the brand and if the associations with it are favorable, strong and unique (Fig 2.5.1). This general construct has been altered, adapted and evolved through the years, especially for measurement purposes, however it’s considered important to understand the initial concept thoroughly.

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*Figure 2.5.1: Dimensions of Brand Knowledge (Keller, 1993)*
Further improved frameworks on the concept of brand equity accentuated the importance of *Perceived Quality, Brand Loyalty* and *Brand Associations* in driving brand equity. In published work done by Yoo, Donthu and Lee in 2000, certain aspects of the marketing mix were associated with the aforementioned brand equity elements and these were later correlated to brand equity itself. The researchers hypothesized how these controlled aspects (like price, advertising spending, store image and others) could build or ruin brand equity. The importance of the study is that every action has an impact on building brand equity, which is apparent only in the long-run, whether it affects the perceived quality, brand loyalty or brand associations. Brand loyalty was also proven to be the most highly correlated factor, but this should not be generalized due to the implications of the research.

Applying the concept of consumer-based brand equity on green branding, Yu-Shan Chen in 2010, introduced a framework of estimating what’s driving Green Brand Equity. His research results showed three factors, the ones of *Green Brand Image, Green Satisfaction* and *Green Trust* are positively correlated to Green Brand Equity and explain its variation satisfactorily (Chen, 2010).

These constructs are newly introduced and defined by Chen, the definitions of which are adapted and based on previous literature work, like Keller’s and Yoo’s as referenced above.

- **Green Brand Image** is defined as “a set of perceptions of a brand in a consumer’s mind that is linked to environmental commitments and environmental concerns.”

- **Green Satisfaction** is defined as “a pleasurable level of consumption-related fulfillment to satisfy a customer’s environmental desires, sustainable expectations, and green needs.”

- **Green Trust** is defined as “a willingness to depend on a product, service, or brand based on the belief or expectation resulting from its credibility, benevolence, and ability about its environmental performance.”
• **Green Brand Equity** is defined as “a set of brand assets and liabilities about
green commitments and environmental concerns linked to a brand, its name and
symbol that add to or subtract from the value provided by a product or service.”

In other words, how well a brand is perceived as a green brand and how much value
environmentalism adds to the brand, depends greatly on its image as a green brand, the
satisfaction consumers get and the trustful relationship they build with it, as a brand that
cares for and tries not to harm the environment. The measurements of these constructs
are also based on previous published research. For a more detailed look at the
measurements of these constructs, the reader is suggested to look at Appendix 1 where
the original questionnaire is listed in English.

In the same paper, green brand image is proven to have a positive effect on green
satisfaction and green trust, as in a good brand image reduces the risk associated with
consumption of the product (higher trust) and also increases satisfaction by the sheer
consumption of the product. For a green brand, a good, environmentally-friendly image
means bigger trust to the brand’s environmental claims and also higher satisfaction
levels from a product’s contribution to sustaining the environment. The suggested
structural model can be seen in Fig 2.5.2.

![Figure 2.5.2: Suggested model for Green Br. Equity (Chen, 2010)](image)

With the variety of factors and elements that affect brand equity, no model can be
expected to have universal appeal, however a general, reliable framework is needed as a
point of reference. Even if the general factors describe a robust model, the dynamic
relationships among them can be different from model to model. Therefore, a lot of
researchers try to help and further define the exact nature of each variable. Researchers in Taiwan asked from 200 Taiwanese consumers to respond to a Likert-scale style questionnaire concerning their personal opinions on Green Product Quality, Green Corporate Image, Green Customer Satisfaction, Green Customer Loyalty for electronic products. The hypothesized model and the relationships among the factors can be seen in Fig 2.5.3.

![Suggested model for Green Satisfaction and Loyalty (N.-J. Chang & Fong, 2010)](image)

Figure 2.5.3: Suggested model for Green Satisfaction and Loyalty (N.-J. Chang & Fong, 2010)

Green Product Quality was defined as “the dimensions of product features, product design, and product package that are involved in energy-saving, pollution-prevention, waste recycling, and being environmentally friendly” and Green Customer Loyalty as “the intention to repurchase, the desire to recommend, the ability to show tolerance for a higher price, and purchase other products from an institution which is involved with the environment and has green concerns” (N.-J. Chang & Fong, 2010). The results showed that Green Image (based after all on Chen’s definition) is strongly connected to Green Satisfaction and Green Loyalty, more so than Green Product Quality. Green Satisfaction also heavily influences Green Loyalty.

Similar survey on consumers of electronics in Korea proved the framework shown in Figure 2.5.4. Green Affect is defined as “a green brand’s potential to evoke a positive emotional reaction in a typical consumer through its usage”. The three highest valued relationships were satisfaction and loyalty, satisfaction and affect and affect and loyalty. Loyalty is also critically linked with green brand equity (Kang & Hur, 2011).
From all of the above, one can conclude that green brand equity is a construct that includes green satisfaction and a green brand image (N.-J. Chang & Fong, 2010; Chen, 2010; Kang & Hur, 2011). Brand Associations and Image are closely connected (Keller, 1993) and may include associations that are related to emotional and experiential benefits from the use of the products (green affect), as well as associations related to green product quality. Trust is a factor that may not be explicitly noticed in conventional brand equity frameworks, but is apparently important in green brand equity, given the bad reputation of many companies’ environmental actions and intentions. Chen’s model did not include the strong relationship between satisfaction with loyalty and loyalty with brand equity. More research should be done on developing a coherent model that includes the most important factors.
3. Methodology

3.1. Research Methodology

Chen’s work was based on electronics brands and featured a sample of Taiwanese consumers. The electronics industry is an interesting case for firms’ environmental performance, since the manufacturing, use and disposal of electronic products can be very demanding in use of natural resources. Electronic manufacturers have to comply to tough environmental regulations and the products are rated based on energy performance (for example, the EU rating of a product’s energy consumption from A to F). Products like fridges or gadgets also have to be properly recycled after their disposal. Additionally, innovation in electronics leads to smaller product life cycles, encouraging the quick accumulation and disposal of such products (First & Khetriwal, 2010). Therefore the electronics industry pioneers have a good reason to follow environmentally-friendly strategies.

For the needs of this thesis, Chen’s questionnaire was adapted for Greek audiences and the hypothetical model, as defined by Chen, is tested against a sample of Greek young electronics consumers, further examining the application of the suggested framework cross-culturally. The questionnaire was posted and distributed online to a convenience sample of Greek people of every age in June 2012. Because of the distribution means (through social media & emails in academic databases), the grand majority of the respondents are young aged between 18-35. Before being sent to the public, the questionnaire was initially completed by a test sample consisting of both academic professors and young students, to ensure that it was clearly written and understood by everyone. Required corrections were made before distributing to the general audience online.

The questionnaire asks from respondents to choose their favorite electronics brand. They are then asked questions about this specific brand’s green brand image, green satisfaction, green trust and green brand equity. The answers come in a form of Likert-scale from 1 to 5 (1 meaning “Completely Disagree” and 5 meaning “Completely Agree”), showing the respondent’s degree of agreement with each statement asked. Statements refer to specific occasions of whether the respondent acknowledges the green image of its brand of choice, or trusts and is satisfied by his brand in terms of
environmental concern and action. Every statement is given a score, therefore making the statement an observed variable. The Green brand equity and its drivers are the latent, unobserved variables. The goal of the questionnaire is to correlate the latent variables with their corresponding observed variables and then correlate the latent variables with each other, thus proposing a framework model that shows if the model can explain what’s driving consumer-based green brand equity adequately or whether more factors should be taken into account.

To successfully adapt the questionnaire for the needs of this thesis, respondents were first asked to pick their brand of choice from an extensive list of 18 suggested electronics brands, but they were also allowed to type their own brand if it was not included in the list. The brands were picked from Greenpeace’s reports on the environmental practices of brands. Afterwards, respondents were introduced to a short description of terms like “environmental commitments”, “environmental performance” and “environmental concern” that are frequently used in the questionnaire, in order to increase the questionnaire’s validity and avoid misunderstandings while answering the questions. The questions from Yu-Shan Chen’s questionnaire followed, translated into greek, and in the end respondents would tell their gender and pick the age bracket they belong. Age brackets were 4 groups consisting of people under 18 years old, people aged 19-35, 36-50 and over 50 years old. That way, results could be divided into answers from Gen Y-ers, Gen X-ers, Baby boomers and Younger people. In the end, respondents had to answer two extra questions, one about whether they feel informed about the environmental practices of brands and about whether they feel that there should be better information regarding the environmental practices of brands. The original questionnaire in English can be found in Appendix 1. The Greek version along with necessary instructions can be found in Appendix 2.

There were 138 valid responses recorded online, 127 (92%) of which came from people aged 19-35 (Gen Y). 10 (7%) respondents were aged between 36-50 and only one respondent (1%) was below 18 years old (Fig. 3.1). This makes the results pretty age-biased, giving them a youthful point of view.
However, the age-biased results cannot be considered insignificant, since Gen Y-ers will constitute a big part of tomorrow’s adult population and consumer force. Like most members of the Y Generation, the respondents are highly educated, consisting mostly of students pursuing their bachelor’s or master’s degrees. As observed by the literature review, this may be a crucial factor when it comes to the awareness of environmental problems among people in this group and the desire to alleviate them. Moreover, this age subculture is very interesting marketing-wise, since it holds unique perceptions on marketing and branding. Gen Y-ers utilize word-of-mouth and social media to look for information and make purchase decisions, they affect their parents’ choices, are aware of big social issues and appreciate transparency and responsibility from the brands they endorse (Schiffman & Kanuk, 2010).

Of the 137 respondents, 64 (46%) were male and 74 (54%) were female, so the final results cannot be considered gender-biased (Fig 3.2).

All the data collected was inserted into the SPSS and SPSS AMOS software package in order to declare factor loadings, Cronbach α indexes, and study the general fit of the suggested model. Results are presented in the 4th chapter.

Figure 3.1: Pie chart of ages of participants

Figure 3.2: Pie chart of gender of participants
3.2. The Basics of SEM (Structural Equation Modeling)

In the research environment, there are the so-called “observed variables” (or indicator variables), which can be accurately measured, and the “latent variables” (or unobserved variables). Observed variables consist of statements, indexes, phenomena that can be measured directly and accurately. For example, product sales, GDP or social media followers are observed variables. Latent variables usually consist of abstract concepts that can be felt and thought by a human, but cannot be measured directly with any tool or assessment. Concepts like brand equity, consumer attitudes and beliefs are examples of latent variables (Malhotra & Birks, 2007). For the purpose of research however, scientists try to measure latent variables through the use of various observed variables that can be correlated to the latent variable hypothetically. This countable measure includes the hypothetical correlation and a margin of error.

In Structural Equation Modeling, the correlations between observed and latent variables (measuring model) and the correlations among latent variables (structural model) themselves are quantified and statistically processed, so that error margins can be defined and statistically significant correlations among variables can be declared. SEM can be used to test already hypothesized models among various variables, or used to develop new theories by working out how variables correlate to each other (Strangor, 2011). SEM methodologies and software include a number of analyses and statistical tools that calculate the fit of the model, as well as the trustworthiness of the general fit. This thesis uses SEM to test the fit of the hypothesized model based on the sample of answers collected.
4. Results

4.1. Statistical validity of constructs

Based on the data collected, the constructs were checked for their validity and reliability. The constructs were correlated among them. Factor loadings, Cronbach $\alpha$ and AVE were calculated for each construct. The results can be seen on Table 4.1 and Table 4.2.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Mean</th>
<th>St. Dev.</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Green Brand Image</td>
<td>2.89</td>
<td>0.64</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Green Satisfaction</td>
<td>2.83</td>
<td>0.61</td>
<td>0.949</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Green Trust</td>
<td>3.20</td>
<td>0.84</td>
<td>0.959</td>
<td>0.899</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>D. Green Brand Equity</td>
<td>2.78</td>
<td>0.75</td>
<td>0.328</td>
<td>0.310</td>
<td>0.354</td>
<td>1.00</td>
</tr>
</tbody>
</table>
### Table 4.2: Constructs and measurements

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Factor Loadings</th>
<th>Cronbach α</th>
<th>AVE</th>
<th>Square Root of AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Brand Image</td>
<td></td>
<td>0.864</td>
<td>0.647</td>
<td>0.804</td>
</tr>
<tr>
<td>GB1</td>
<td>0.795</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GB2</td>
<td>0.830</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GB3</td>
<td>0.794</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GB4</td>
<td>0.813</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GB5</td>
<td>0.789</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green Satisfaction</td>
<td></td>
<td>0.886</td>
<td>0.746</td>
<td>0.864</td>
</tr>
<tr>
<td>GS1</td>
<td>0.865</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GS2</td>
<td>0.826</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GS3</td>
<td>0.883</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GS4</td>
<td>0.879</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green Trust</td>
<td></td>
<td>0.875</td>
<td>0.667</td>
<td>0.817</td>
</tr>
<tr>
<td>GT1</td>
<td>0.809</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GT2</td>
<td>0.830</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GT3</td>
<td>0.797</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GT4</td>
<td>0.848</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GT5</td>
<td>0.799</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green Brand Equity</td>
<td></td>
<td>0.906</td>
<td>0.784</td>
<td>0.885</td>
</tr>
<tr>
<td>GBE1</td>
<td>0.758</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GBE2</td>
<td>0.905</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GBE3</td>
<td>0.931</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GBE4</td>
<td>0.935</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All factor scores are satisfactorily high and have a value of over 0.7, meaning that they play an important role in measuring the latent variable. High Cronbach α values support the reliability of the scale. All AVE values are above 0.5 confirming convergent validity of the constructs. The square roots of AVE have lower values than the correlation indexes among the latent variables, therefore not securing discriminant validity among Green Brand Image, Green Satisfaction and Green Trust (Fornell & Larcker, 1981). Convergent validity means that the measured variables theoretically related to each latent variable are indeed related and discriminant validity means that each set of
measured variables grouped under one latent variable is discriminated from the other (Farrell, 2009; Fornell & Larcker, 1981). The fact that there is no discriminant validity noted for the current sample, means that the suggested framework could be improved with changes in the constructs. There’s also the possibility that the respondents did not perceive a clear difference among the concepts of brand image, satisfaction and trust.

4.2. The structural model

Figure 4.2.1 shows the model computed by SPSS AMOS, along with the various factor scores and covariances.

![Structural Model Diagram]

GFI = 0.824  RMSEA = 0.088  NFI = 0.857  CFI = 0.92

Figure 4.2.1: The Structural Model with regression weights

As observed, there is Green Brand Image (GBI) is positively correlated to Green Satisfaction (GS), Green Trust (GT) and Green Brand Equity (GBE). The relationship between Green Brand Image and Green Satisfaction and Green Brand Image and Green Trust is very high, both with a regression weight of over 0.9. Green Brand Image and Green Trust have a mildly positive impact on Green Brand Equity, while the specific
model shows us that Green Satisfaction has zero effect on Green Brand Equity. All the reported regression weights have a Critical Ratio of over 1.96, which makes them statistically significant at a p<0.05 level. Unfortunately the relationships of Green Brand Image, Green Satisfaction and Green Trust with Green Brand Equity (the three lowest weighted correlations on the structural model) are evaluated as statistically insignificant for this model. The observed variables are proven very good at measuring the latent variables, all of them with a factor score of over 0.7.

Numerical indexes further confirm an adequate fit for the model. GFI and CFI have more than acceptable values and NFI is also acceptable. The RMSEA of 0.08 is considered barely passable and it shows that the model can be improved with further research and more variables (Hooper, Coughlan, & Mullen, 2008).

4.3. Respondent’s knowledge

Considering the fact that respondents expressed a concern about the green image, satisfaction and trust towards their brands during the testing round of the questionnaire (many of them being fans of brands not based on environmental criteria), there were two questions added in order to get a sense of the knowledge and awareness of the respondents.

The first question asked was if the respondents get information about companies’ environmental concern and action. 29% of the sample expressed its disagreement with the statement, meaning that they don’t feel informed or get information about companies’ actions to protect the environment. A further 26% responded with a “Neither agree, nor disagree”, leaving to a total 66% of the sample either doubting or accepting their unfamiliarity with the issues examined (Fig. 4.3.1).

![Figure 4.3.1: Awareness of companies’ environmental actions](image)
The second question asked was whether the respondents felt that more awareness needs to be raised about companies’ environmental actions. 75% of the sample responded with an “Absolutely Agree” underlining the need for better consumer education and focus on collective action (Fig 4.3.2).

One should keep in mind that the literature work studying green brand equity of electronic products comes mostly from South Korea. With electronic manufacturing and distributing being such an important part of S. Korea’s economy (T. White, 2011) and with a governmental focus on green investments (T. White, 2009), it’s note-worthy to assume that Korean respondents may have been more keen and better informed to answer questions regarding corporate environmental actions of electronics brands.

Figure 4.3.2: Need for promotion of environmental actions

One should keep in mind that the literature work studying green brand equity of electronic products comes mostly from South Korea. With electronic manufacturing and distributing being such an important part of S. Korea’s economy (T. White, 2011) and with a governmental focus on green investments (T. White, 2009), it’s note-worthy to assume that Korean respondents may have been more keen and better informed to answer questions regarding corporate environmental actions of electronics brands.
5. Conclusions & Suggestions

5.1. Green Brand Equity and its drivers

The goal of this research was to test the hypotheses made by Chen, 2010, regarding the drivers of Green Brand Equity. The results of the questionnaire showed very high correlation coefficients between Green Brand Image and Green Satisfaction and Green Brand Image and Green Trust. The same cannot be said with certainty for the relationship of these three factors with Green Brand Equity. The paths of the model proved to be statistically insignificant, so the initial theory cannot be confirmed or rejected with certainty (Table 5.1). But there were some positive correlations for all three structural paths, albeit small, and literature seems to confirm the logic behind Chen’s assumptions.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Regression Weight</th>
<th>Supported?</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ GBI -&gt; + GS</td>
<td>0.91 (p&lt;0.05)</td>
<td>YES!</td>
</tr>
<tr>
<td>+ GBI -&gt; + GT</td>
<td>0.92 (p&lt;0.05)</td>
<td>YES!</td>
</tr>
<tr>
<td>+ GBI -&gt; + GBE</td>
<td>0.14 (p&gt;&gt;0.05)</td>
<td>Cannot be claimed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(probably yes)</td>
</tr>
<tr>
<td>+ GS -&gt; + GBE</td>
<td>0.02 (p&gt;&gt;0.05)</td>
<td>Cannot be claimed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(probably yes)</td>
</tr>
<tr>
<td>+ GT -&gt; + GBE</td>
<td>0.14 (p&gt;&gt;0.05)</td>
<td>Cannot be claimed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(probably yes)</td>
</tr>
</tbody>
</table>

The reason for the statistical insignificance may be due to respondents’ unawareness of the environmental attributes of their favorite electronic gadgets. Given that a lot of these products’ green features (like energy consumption, use of recyclable materials etc.) are standard and implemented due to government restrictions, consumers probably don’t buy them based on differentiated green aspects of the products. If the electronics industry is considered as less-harmful to the environment, as other industries, consumers probably don’t make environmental concerns as primary priority when choosing electronic products and don’t perceive the environmental dangers of such
products (Kong & Zhang, 2012; Menon & Menon, 1997). That may not have been the case with other industries, such as energy, cars or construction. However, no matter the occurrent statistical insignificance, literature supports the correlation of these constructs, therefore there is good reason to believe that Green Satisfaction, Green Trust and Green Brand Image affect Green Brand Equity.

There’s also the possibility that the suggested framework, even though based on sound hypotheses and confirmed by Chen may not be ready for universal application. Even though the items of measurement look valid with high Cronbach values and significant factor scores, the latent variables of the model may have to be reexamined. The defining factors of brand equity in general is perceived quality, loyalty, and brand associations (brand image) (Yoo, Donthu, & Lee, 2000). Much like in the work of Kang, Hur in 2011 and Chang, Fong in 2010, a new model could be proposed that connects green brand equity with green loyalty, green perceived quality and other associative factors like green trust, green brand image and green affect. Further research is needed on this.

5.2. Implications for Marketers

All of the above are very useful indicators for practicing green marketing, but why should marketers insist on green marketing and creating authentically green brands, when the demand looks like is just not there? Corporate Social Responsibility can offer a differentiation competitive advantage to a company. Higher corporate environmental ethics enhance green innovation in a corporation and that green innovation enhances competitive advantage (C.-H. Chang, 2011). Its poor implementation, however, can backfire (Wagner et al., 2009). Moreover, a brand that focuses on environmental CSR should do so in a manner that’s relative to the brand essence and immediately beneficial to the communities. CSR may not be actually effective in building brand equity, but is helpful in sustaining it even in unexpected crises and that can be very helpful to the stock price of the firm (First & Khetriwal, 2010; Luo & Bhattacharya, 2009).

It is also difficult to establish a financially viable segment of “green consumers”. Consumers do not live on green needs and may not be altruistic enough to justify green purchases over conventional purchases (Rundle-Thiele et al., 2008). The segment of consumers that consider the environment as top priority when choosing everyday
products can probably be considered niche (Rex & Baumann, 2007). Green brands should broaden their communications and their green marketing efforts by utilizing the whole marketing mix in green ways and serve conventional needs, better than the competition, in a green manner. Pushing green products down consumers’ throats is mostly ineffective. Yet consumers can’t pull demand for a product that’s not marketed at them and don’t know what it does or why it exists.

This research has shown that building a strong green brand image, as in positive environmental brand associations, will enhance green satisfaction and green trust. Focusing on these areas and by deploying varied and transparent communications programs and tools, a company is set to enjoy good Corporate Social Performance, something that is being rewarded financially, through more stable stock prices against an ever-evolving market.

5.3. Limitations and Future Research

The writer of this thesis hopes that the research conducted here will inspire even further and better research in the future. The results show that the theoretical hypotheses offer a convenient framework to work with and even though not completely confirmed in this case, it was not rejected. The model could work better with better educated respondents and on a wider sample other than university students. The model could also be tested in other countries and cultures and of course for different products, preferably the ones who are considered more environmentally dangerous by the majority of people.

Then there’s the suggestion of testing a better, more cohesive model. A new model could include factors like brand loyalty and the importance of satisfaction and trust in driving loyalty (Kang & Hur, 2011). The relationship between satisfaction and loyalty may also not be linear in a certain brand equity framework and should be further examined (Dong, Ding, Grewal, & Zhao, 2011). Ideally, the models could be tested on segmented samples based on various attitudes, like environmental attitudes or attitudes towards corporate hypocrisy (Wagner et al., 2009), or various environmental behaviors.
Bibliography


### Appendix 1

#### Section 1: Green Brand Image

<table>
<thead>
<tr>
<th>Statement</th>
<th>Completely Disagree</th>
<th>Completely Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The brand is regarded as the best benchmark of environmental commitments</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>The brand is professional about environmental reputation</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>The brand is successful about environmental performance</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>The brand is well established about environmental concern</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>The brand is trustworthy about environmental promises.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

#### Section 2: Green Satisfaction

<table>
<thead>
<tr>
<th>Statement</th>
<th>Completely Disagree</th>
<th>Completely Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>You are happy about the decision to choose this brand because of its environmental commitments</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>You believe that it is a right thing to purchase this brand because of its environmental performance</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Overall, you are glad to buy this brand because it is environmentally friendly</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Overall, you are satisfied with this brand because of its environmental concern.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

#### Section 3: GREEN TRUST

<table>
<thead>
<tr>
<th>Statement</th>
<th>Completely Disagree</th>
<th>Completely Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>You feel that this brand’s environmental commitments are generally reliable</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>You feel that this brand’s environmental performance is generally dependable</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>You feel that this brand’s environmental argument is generally trustworthy</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>This brand’s environmental concern meets your expectations</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>This brand keeps promises and commitments for environmental protection.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>
Section 4: GREEN BRAND EQUITY

<table>
<thead>
<tr>
<th>Statement</th>
<th>Completely Disagree</th>
<th>Completely Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>It makes sense to buy this brand instead of other brands because of its environmental commitments, even if they are the same</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Even if another brand has the same environmental features as this brand, you would prefer to buy this brand</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>If there is another brand's environmental performance as good as this brand's, you prefer to buy this brand</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>If the environmental concern of another brand is not different from that of this brand in any way, it seems smarter to purchase this brand.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>
ΕΙΣΑΓΩΓΙΚΑ

Το ερωτηματολόγιο δημιουργήθηκε στα πλαίσια της διπλωματικής εργασίας μου για το Πανεπιστήμιο Μακεδονίας. Σκοπό έχει να διερευνήσει παράγοντες που επηρεάζουν την αντιλαμβανόμενη θέση μιας μάρκας ηλεκτρονικών συσκευών στα μάτια των καταναλωτών, ως προς την περιβαλλοντική της πολιτική. Η αξιολόγηση αυτών των παραγόντων θα προσδιορίσει τη συνεισφορά τους στο καθορισμό της "πράσινης" αξίας της μάρκας (green brand equity). Η κατηγορία αυτή επιλέχτηκε γιατί κάθε κατασκευαστής ηλεκτρονικών συσκευών οφείλει ήδη να τηρεί αυστηρές οικολογικές προδιαγραφές (ανακύκλωση συσκευών, χρήση διαφόρων υλικών κλπ.) από τη νομοθεσία.

Το ερωτηματολόγιο είναι ανώνυμο και η συμπλήρωσή του δε θα σας πάρει πάνω από 10 λεπτά.

Για καλύτερη κατανόηση του ερωτηματολογίου κρίθηκε σκόπιμο να περιγραφούν συγκεκριμένοι όροι.

Το περιβαλλοντικό μάνατζμεντ περιλαμβάνει τη βελτίωση της απόδοσης της παραγωγικής διαδικασίας των εταίρων, μέσω μείωσης της κατανάλωσης ενέργειας, αποτροπής της μόλυνσης του περιβάλλοντος, ανακύκλωσης υλικών, εξάλειψης τοξικών ουσιών και παραγωγής προϊόντων φιλικών προς το περιβάλλον.

Οι περιβαλλοντικές δεσμεύσεις (environmental commitments) μιας εταιρίας αφορούν στην ύπαρξη ενός σχεδίου για το περιβάλλον. Το σχέδιο έχει κοινοποιηθεί σε προσωπικό και μετόχιο, και περιλαμβάνει πράσινες επενδύσεις και καθήρωση πρακτικών περιβαλλοντικού μάνατζμεντ.

Η περιβαλλοντική απόδοση (environmental performance) σχετίζεται με το κατά πόσο η μάρκα επιτυγχάνει να καινοτομεί στην εφαρμογή πράσινων διαδικασιών παραγωγής, στην κατασκευή πράσινων προϊόντων και στην εφαρμογή περιβαλλοντικού μάνατζμεντ.

Οι περιβαλλοντικές ευαισθησίες (environmental concern) της μάρκας περιλαμβάνουν τη δημόσια θέση της απέναντι στη θέματα οικολογίας, χωρίς απαραίτητα αυτές να έχουν μεταφραστεί σε κάποιο πλάνο.

ΠΑΡΑΚΑΛΩ ΕΠΙΛΕΞΤΕ ΜΑΡΚΑ (BRAND)

Επιλέξτε την (μια) αγαπημένη σας μάρκα (brand) ηλεκτρονικών συσκευών. Η κατηγορία αυτή επιλέχτηκε γιατί κάθε κατασκευαστής ηλεκτρονικών συσκευών οφείλει να τηρεί από τη νομοθεσία αυστηρές οικολογικές προδιαγραφές (ανακύκλωση συσκευών, χρήση διαφόρων υλικών κλπ.). Λίγος ένδεικτική λίστα, όμως μπορείτε να επιλέξετε και μια άλλη μάρκα, αρκεί να αφορά κατασκευαστή ηλεκτρονικών συσκευών.

HP, Dell, Nokia, Apple, Philips, Sony Ericsson, HTC, Samsung, Panasonic, Sony, Microsoft, Nintendo, Sharp, Acer, LG, Toshiba, RIM, Lenovo

Άλλο: .................................................................................................................................

ΕΝΟΤΗΤΑ 1: ΠΕΡΙΒΑΛΛΟΝΤΙΚΗ ΕΙΚONA

Ακολουθούν ερωτήσεις που σχετίζονται με την εικόνα που έχει η μάρκα ως προς περιβαλλοντικά θέματα.
Έχοντας υπόψη τη μάρκα που επιλέξατε, παρακαλώ να υποδείξετε τον βαθμό που συμφωνείτε ή διαφωνείτε με τις ακόλουθες προτάσεις. Όλες οι απαντήσεις είναι υποκειμενικές και βασίζονται στις δικές σας αντιλήψεις, αλλά σε περίπτωση που δεν είστε σίγουροι για την απάντησή σας μπορείτε να επιλέξετε το 3o.

| Μάρκα θεωρείται πρότυπο περιβαλλοντικής δεσμεύσεως (environmental commitments). | 1 | 2 | 3 | 4 | 5 |
| Η μάρκα επιδεικνύει αληθινό ενδιαφέρον ως προς την περιβαλλοντική φήμη της. | 1 | 2 | 3 | 4 | 5 |
| Η μάρκα έχει πετύχει καλή περιβαλλοντική απόδοση (environmental performance). | 1 | 2 | 3 | 4 | 5 |
| Η μάρκα είναι γνωστή για τις περιβαλλοντικές ευαισθησίες (environmental concern) της. | 1 | 2 | 3 | 4 | 5 |
| Η μάρκα είναι αξιόπιστη σε ό, τι αφορά τις περιβαλλοντικές υποσχέσεις της. | 1 | 2 | 3 | 4 | 5 |

**ΕΝΟΤΗΤΑ 2: ΠΕΡΙΒΑΛΛΟΝΤΙΚΗ ΙΚΑΝΟΠΟΙΗΣΗ**

Ακολουθούν ερωτήσεις που σχετίζονται με το κατά πόσο ικανοποιημένοι είστε από τον τρόπο που η μάρκα συμπεριφέρεται ως προς το περιβάλλον.

Έχοντας υπόψη τη μάρκα που επιλέξατε, παρακαλώ να υποδείξετε τον βαθμό που συμφωνείτε ή διαφωνείτε με τις ακόλουθες προτάσεις. Όλες οι απαντήσεις είναι υποκειμενικές και βασίζονται στις δικές σας αντιλήψεις, αλλά σε περίπτωση που δεν είστε σίγουροι για την απάντησή σας μπορείτε να επιλέξετε το 3o.

| Είστε χαρούμενος με την απόφασή σας να διαλέξετε αυτή τη μάρκα λόγω των περιβαλλοντικών δεσμεύσεων (environmental commitments) της. | 1 | 2 | 3 | 4 | 5 |
| Αποτελεί καλή πράξη να αγοράσετε αυτή τη μάρκα λόγω της περιβαλλοντικής απόδοσής (environmental performance) της. | 1 | 2 | 3 | 4 | 5 |
| Γενικά, χαίρεστε να αγοράσετε αυτή τη μάρκα γιατί είναι φιλική προς το περιβάλλον. | 1 | 2 | 3 | 4 | 5 |
| Γενικά, είστε ικανοποιημένοι με αυτή τη μάρκα εξαιτία των περιβαλλοντικών ευαισθησιών (environmental concern) της. | 1 | 2 | 3 | 4 | 5 |

**ΕΝΟΤΗΤΑ 3: ΠΕΡΙΒΑΛΛΟΝΤΙΚΗ ΕΜΠΙΣΤΕΥΣΗ**

Ακολουθούν ερωτήσεις σχετικά με την εμπιστοσύνη που δείχνετε στην επιλεγμένη μάρκα και στον τρόπο που διαχειρίζεστε θέματα περιβάλλοντος.

Έχοντας υπόψη τη μάρκα που επιλέξατε, παρακαλώ να υποδείξετε τον βαθμό που συμφωνείτε ή διαφωνείτε με τις ακόλουθες προτάσεις. Όλες οι απαντήσεις είναι υποκειμενικές και βασίζονται στις δικές σας αντιλήψεις, αλλά σε περίπτωση που δεν είστε σίγουροι για την απάντησή σας μπορείτε να επιλέξετε το 3o.

| Οι περιβαλλοντικές δεσμεύσεις (environmental commitments) αυτής της μάρκας είναι γενικά υψηλές, | 1 | 2 | 3 | 4 | 5 |
Η περιβαλλοντική απόδοση (environmental performance) αυτής της μάρκας είναι αξιόπιστη.

Η επιχειρηματολογία που έχει αυτή η μάρκα απενεχνίστε στο περιβάλλον (environmental argument) είναι άξια εμπιστοσύνης.

Οι περιβαλλοντικές ευαισθησίες (environmental concern) αυτής της μάρκας ικανοποιούν τις προσδοκίες σας.

Η μάρκα αυτή πρέπει τις περιβαλλοντικές υποσχέσεις και δεσμεύσεις της (environmental commitments).

<table>
<thead>
<tr>
<th>Διαφωνώ Απόλυτα</th>
<th>Όπωσ Διαφωνώ, Όπωσ Συμφωνώ</th>
<th>Συμφωνώ Απόλυτα</th>
</tr>
</thead>
<tbody>
<tr>
<td>Αν οι περιβαλλοντικές δεσμεύσεις (environmental commitments) μιας άλλης μάρκας δε διαφέρουν από αυτές της μάρκας που επιλέξατε, προτιμάτε να αγοράσετε την επιλεγόμενη μάρκα.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Ακόμα και αν μια άλλη μάρκα έχει τα ίδια χαρακτηριστικά περιβαλλοντικής πολιτικής (environmental features) σε σύγκριση με την επιλεγόμενη μάρκα, προτιμάτε να αγοράσετε τη μάρκα που επιλέξατε.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Αν η περιβαλλοντική απόδοση (environmental performance) μιας άλλης μάρκας είναι εξίσου καλή με τη μάρκα που επιλέξατε, προτιμάτε να αγοράσετε και πάλι την επιλεγόμενη μάρκα.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Αν οι περιβαλλοντικές ευαισθησίες (environmental concern) μιας άλλης μάρκας δε διαφέρουν από αυτές της επιλεγόμενης μάρκας, προτιμάτε να αγοράσετε και πάλι την επιλεγόμενη μάρκα.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

ΕΝΟΤΗΤΑ 6: ΓΕΝΙΚΕΣ ΠΛΗΡΟΦΟΡΙΕΣ

Παρακαλώ δώστε μόνο τις παρακάτω πληροφορίες:

| Ενημερώνεστε για τις ενέργειες που προβαίνουν οι εταιρείες σχετικά με τη διατήρηση του περιβάλλοντος. | 1 2 3 4 5 | |
| Πρέπει να υπάρχει καλύτερη ενημέρωση για τις περιβαλλοντικές πρακτικές των εταιριών. | 1 2 3 4 5 | |

Ηλικία:
- <18 ετών
- 19 – 35
- 36 – 50
- >50 ετών
Φύλο:
• Άντρας
• Γυναίκα

Ευχαριστούμε πολύ για τη συμμετοχή σας στην έρευνά μας.