GREENWASHING OF IT BRANDS: A COMPARATIVE STUDY

*Anthony Chan**

Abstract

This paper attempts to uncover the reasons behind discrepancies between the perceived "greenness" of an IT brand and an objective evaluation of the company's sustainability practices through a study of corporate websites as brand positioning tools. Different elements of corporate branding strategy are examined, and areas for further research are suggested.

An analysis of the corporate websites of six IT vendors (HP, Dell, Apple, Microsoft, Nokia and Samsung) is conducted to collect data along two dimensions: functional attributes and emotional benefits of their sustainability efforts. For functional attributes, data on product strategies, corporate social responsibility programs and environmental responsibility efforts are collected. For emotional attributes, the existence of any emotional appeal in the corporate websites is documented and categorized. The data is then compared with the results from the Greenfactor study and the Greenpeace score card to identify similarities and differences between perception and substance, such that two categories of green brands can be identified: high perception, low substance and low perception, high substance.

First, corporate websites of all studied companies are similar in terms of content and design, indicating websites are not a differentiating factor. Second, IT company websites appeal to the functional dimension of green brand positioning strategies more so than emotional dimension. Third, IT companies are mindful of accusations of greenwashing and are careful about environmental claims.

The green branding strategies of the major IT firms are similar in nature and so building a distinctive, consistent and "strong" brand in this context becomes a challenge. Some companies are breaking away by actively seeking new ways to position themselves as pioneers of environmentally responsibility. Dell's ban on e-waste export, for example, is a step in this direction, and Apple's communication strategy tends to stress its leadership role in sustainable practices.

Keywords: Brand Positioning Tools, Electronic Waste, IT Vendors, Greenfactor Study, Greenpeace Score

* *Division of Industrial Marketing, eCommerce and Logistics, Lulea University of Technology, Lulea, Sweden*
Email: anthonyc@sfu.ca

Introduction

The advent of consumer computing technology, such as personal computers and smartphones, has provided indispensible productivity tools for many people around the world. While the proliferation of such devices has created enormous economic benefit for both consumers and equipment manufacturers, the inevitable obsolescence of these devices has created a major electronic waste challenge for developed and developing nations alike. Compounding the problem, planned obsolescence became the industry norm, as consumers clamor for whatever the newest version of a popular product may be. Apple's iPhone is a prime example of planned obsolescence. Between October 2007 and December 2009, over 40 million units of three generations of iPhones were sold. The iPhone 4 debut in June 2010 made all these previous devices technically obsolete overnight. Millions of iPhones are disposed of annually due to constant upgrades (Flinn, 2010). While devices like iPhones can be part of a sound environmental information systems strategy (Pitt et al, 2011), the proliferation of such devices is still a major contributor to the generation of electronic waste.

E-Waste

Electronic waste, or "e-waste" in the age of consumer IT hardware proliferation is a major environmental challenge of our time. An estimated 140.3 million cell phones were disposed of in 2007 alone, and only about 10% of these were recycled (USEPA, 2007). In the United States alone, an estimated 3.01 million tons of e-waste was generated in 2007, and only 13.6% was recycled. The majority of this e-waste ended up in landfills or was incinerated (USEPA, 2007).

The environmental visibility of the IT industry caused many companies to adopt sustainable and responsible business practices (Bowen, 2000). Unfortunately, some companies invest more in

promoting an environmental responsible image than they do in making actual efforts to reengineer their business processes; when companies promote that they are "greener" than they actually are, this is considered to be greenwashing (Bruno, 1992).

This paper begins with a literature review of the impact of the IT industry on the environment, followed by a definition of greenwashing. Then, a content analysis of corporate websites of six IT brands will examine the substance of each company's environmental protection efforts. Referencing metrics from both Greenpeace and GreenFactor, data is plotted in a matrix to provide insights to four categories of environmental responsibility with respect to IT firms. Lastly, limitations of the study, implications for managers and avenues for further research will be discussed.

Literature Review

The US Environmental Protection Agency (EPA) estimates that over three million tons of e-waste was disposed of in 2007, of which only 13.6% was recycled. The remaining 86.4% was either incinerated or dumped in landfills. These electronics products include televisions, VCRs, DVD players, video cameras, stereo systems, telephones, mobile phones and computer equipment (USEPA, 2007). An estimated 20-50 million tons of e-waste are generated each year worldwide, which is about 5% of total global solid waste (UNEP, 2006). E-waste often contains heavy metals such as mercury, lead and cadmium – used in electronic components – all of which are known to have adverse effects on human heath if released into the environment (UNEP, 2006). Additionally, the end-of-life disposal of electronic goods is only one part of a larger environmental impact; significant resources are used in the original production of IT equipment as well. For example, the manufacturing of a single desktop computer and monitor requires 530 pounds of fossil fuels, 48 pounds of chemicals and 1.5 tons of water (UNEP, 2006). To counteract these challenges, IT firms must devote a substantial amount of time and resources to reengineering their business and processes.

Greenwashing

In many other industries, most notably oil and gas, companies often attempt to soften their corporate image through the use of public relations tactics or advertising campaigns that promote environmental sustainability when in fact the organizations' operating activities are detrimental to the environment. Although these promotions are not technically falsified, the goal is to promote sustainability to some extent in some aspects of the business, while "overlooking" unsustainable operations in other parts of the business. Such an effort to present a more favorable image environmental responsibility than is actually the case is known as "greenwashing." Corpwatch, an organization that monitors corporations engaging in such deceptive practices, defines greenwashing as "the phenomenon of socially and environmentally destructive corporations attempting to preserve and expand their markets by posing as friends of the environment" (Corpwatch, 2001).

Why would IT companies resort to greenwashing, intentionally or not? One possible explanation is that, in recent years, overall environmental concern and visibility in the public eye has put pressures on firms to be more sustainable in their business operations, and firms feel pressured to offer "green" PR responses to reassure consumers (Bowen, 2000). In many industries, pressure from NGOs and governments has been a major reason why corporate executives feel the need to demonstrate action on the issue of sustainability. Substantive sustainability efforts take time, resources, deep commitment and strong leadership, while public image makeovers are, relatively speaking, quicker, easier and relatively inexpensive. As such, greenwashing to a greater or lesser degree is a potentially tempting option to relieve some of the pressures put on executives by regulators and NGOs.

Determining whether a company is greenwashing or legitimately promoting sustainability efforts is a difficult task, as it requires a deep knowledge of the operating procedures and policies of the firm. (Of course, if it were relatively easy for consumers to make this distinction, greenwashing likely would be less of an issue.) Stopgreenwash.org is a website maintained by Greenpeace that actively investigate and reports on potential cases of corporate greenwashing in industries such as oil, automotive, electricity, coal and forestry. It has four criteria for identifying greenwashing (Greenpeace, 2009):

1) Touting an environmental program or product while the corporation's core business is inherently polluting or unsustainable.

2) Using targeted advertising and public relations campaigns to exaggerate an environmental achievement in order to divert attention away from environmental problems or if it spends more money advertising an environmental achievement than actually doing it.

3) Advertising or speaking about corporate 'green' commitments while lobbying against pending or current environmental laws and regulations.

4) Advertising or branding a product with environmental achievements that are already required or mandated by existing laws.

Corporate Branding

While there is no single overarching theory in the study of corporate branding, notions of consistency and differentiation tend to be the driving factors behind strong corporate brands, and that have shaped

management branding theory and practice (Kay, 2006). A corporate brand can also be considered to be the product of a social co-production process in which consumers participate in a dialogue-like relationship with the firm (Kay, 2006).

Rivera-Camino (2007) suggests that a firm's "greening" process cannot be seen in a linear manner, but rather as an uneven and incremental process whereby several green marketing strategies are implemented and/or promoted to target different stakeholders. Linking a corporate brand to a social cause such as environmental sustainability is a step toward more deeply connecting a corporate brand to consumers' social value systems (Kay, 2006). While the payoffs can be significant, as consumers come to understand the organization more as a social agent than simply a provider of goods or services, there is an increased risk of alienating consumers if the firm is found to be greenwashing, or over-promoting their environmentally responsible actions to exploit these social connections with consumers.

For environmental branding to be successful, a firm must first have an environmental strategy in place (Easterling, Kenworthy, & Nemzoff, 1996). Two dimensions of positioning strategies are found to have significant impact on consumers' attitudes toward brands: functional and emotional (Hartmann, Ibáñez, & Sainz, 2005). Hartmann et al. (2005) suggest that there is an overall positive influence of green brand positioning on brand attitudes, although it could not be concluded whether the functional or emotional dimension had greater significance in influencing and shaping these brand attitudes. In promoting such intangible concepts as interests and ideologies in brand and advertising campaigns, firms may use language (written or spoken) as well as imagery to convey information and evoke emotion in the audience (Hansen & Machin, 2008).

Three principles guide the successful development of green products: consumer value positioning, calibration of consumer knowledge and credibility of product claims (Ottman, Stafford, & Hartman, 2006). Greenwashing, the dissemination of misleading information to present a more environmentally responsible public image than is actually the case, is a serious concern (Laufer, 2003). Research into environmental marketing claims found that firms operating in the United States tend to be less substantive and more posturing than elsewhere in the world (Polonsky, Carlson, Grove, & Kangun, 1997).

Firms that want to position themselves as green are often required to make substantial changes to operations and practices in order to comply with Federal Trade Commission (FTC) rules and regulations, and the more educated and informed consumers become, the less effective mere posturing becomes (Polonsky, Carlson, Grove, & Kangun, 1997). Unfortunately, there is evidence that stated policies are not always implemented, and Ramus, et al. (RamusEtAl, 2005) suggest that external stakeholders should be skeptical of policy statements if there is no apparent economic incentive for firms to benefit from implementation (RamusEtAl, 2005).

Furthermore, at a time when a significant proportion of companies are actively developing and promoting green branding strategies, there is evidence to illustrate that positive environmental brand associations do not always enhance brand performance (Montoro-Rios, Luque-Martinez, & Rodriguez-Molina, 2008).

Methodology

This study will make use of two publicly available data sources: the GreenFactor Study results, and the Greenpeace Guide to Greener Electronics.

The 2008 GreenFactor Study was a survey of more than 3,500 IT decision makers in 11 countries. The study indicates that the world's top computer manufacturers have the greenest brand images among IT decision makers. IT decision makers were asked to indicate their perceptions of corporate greenness, defined as "having efficient power consumption, recyclable/reusable packaging, recycling offers for older equipment, use of non-toxic materials, or making investments in future 'green' concepts such as alternative materials," on a brand's products and operations (GreenFactor, 2009).

In its Guide to Greener Electronics, Greenpeace used three criteria to produce a ranking of consumer IT producers with respect to greenness: reduction of hazardous material from products, recycling obsolete products, and adoption of business practices that limit impact on climate change (Greenpeace, 2009). Each company was given a score between 0 and 10, and an overall summary provided a relative ranking of firms.

The study sought to analyze differences among top and bottom IT brands in the GreenFactor study to see if there are significant differences in CSR programs among these companies. Corporate websites were chosen as a data source for CSR programs for two reasons. First, websites are a proxy for other marketing materials that firms use to position their brands. Second, corporate websites are quite often how consumers themselves obtain comprehensive information about a company's products and services.

A survey of the corporate websites of six IT vendors (HP, Dell, Apple, Microsoft, Nokia and Samsung) was conducted to collect data along two dimensions: functional attributes of their green efforts and emotional benefits of their green efforts. For functional attributes, data on product strategies, corporate social responsibility programs and environmental responsibility efforts were collected. For emotional attributes, the existence of emotional appeals on the corporate websites were documented and categorized. The data was then compared with the results from the GreenFactor study and the Greenpeace scorecard to identify similarities and

differences among brands with respect to high/low perceptions and high/low substance.

Results

All of the major "green" brands in the GreenFactor study were among the least green in their business practices according to the Guide to Greener Electronics. Conversely, the top two brands in the Greenpeace study were among the bottom in perceived greenness as per the GreenFactor study. Perceived corporate image and the reality of business practices appeared to be diametrically opposed. Table 1 illustrates the Greenpeace rankings of 18 IT firms (scored out of 10 on a scale of actual greenness) as compared with the parallel rankings from the GreenFactor study.

Table 1. Greenpeace Rankings vs. GreenFactor Rankings

Greenpeace	IT Vendor	GreenFactor
7	Nokia	3%
5.7	Samsung	4%
5.3	Sony	8%
4.7	Toshiba	4%
4.7	Dell	30%
4.7	HP	26%
4.5	Acer	3%
4.1	Apple	21%
4.1	Lenovo	6%
3.7	Motorola	5%
2.2	Microsoft	21%

*Only firms ranked in both studies are included in this data.

Table 2 summarizes the product strategies of the four IT vendors where public perception was more positive than practice in reality, verses the two counterparts where practice in reality was more positive than public perception of practice. These attributes belong to the functional dimension of a green branding strategy. In terms of product strategy for sustainability, there was no significant difference among these companies. They were developing energy efficient products while making an effort to recycle end-of-life equipment. Trade-in programs were also popular among hardware manufacturers.

Table 2. Product strategy for sustainability of selected IT brands (functional attributes)

Perception > Reality	*R&D*	*Recycling Program*	*Trade-In Program*
Dell	Low power consumption servers, desktops, and notebook computers	✓	✓
HP	HP's Green Business Technology Initiative	✓	✓
Apple	Being an industry leader in removing harmful materials from products	✓	✓
Microsoft	Producing software that allows companies to consolidate servers and reduce power consumption	✓	
Perception < Reality	*R&D*	*Recycling Program*	*Trade-In Program*
Nokia	Develop energy efficient phone	✓	✓
Samsung	Power saving LCD and energy efficient phones, among others	✓	✓

Table 3 summarizes the sustainable business practices for the selected IT brands. Again, there were no significant differences between brands. However, Dell was among the first to explicitly ban the export of e-waste to developing countries. HP had committed to the removal of harmful materials in its products, but had yet to meet these commitments in practice. There were some variations in each company's approach to CSR programs but the general objectives of these programs across firms, as documented on their websites, were very similar.

Table 3. Sustainability business practices for selected IT brands (functional attributes)

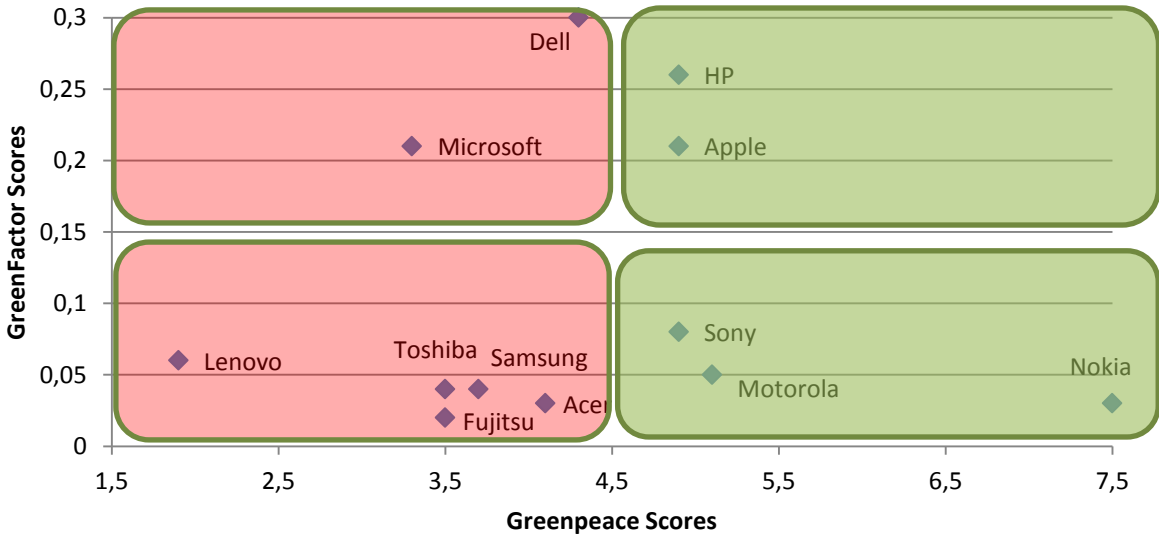
	Sustainable Business Practices			**Corporate Social Responsibility Programs**	
Perception > Reality	*Renewable energy use*	*Removal of harmful materials*	*Bans export of e-waste*	*Donations to and support of green causes*	*Partnerships with NGOs*
Dell	✓	✓	✓		
HP	✓	Committed		✓	✓
Apple		✓			
Microsoft	✓	✓		✓	✓
Perception < Reality	*Renewable energy use*	*Removal of harmful materials*	*Bans export of e-waste*	*Donations to and support of green causes*	*Partnerships with NGOs*
Nokia	✓	✓			✓
Samsung	✓	✓		✓	

Table 4 summarizes the use of branding messages that appeal to the emotional dimensions of being green. It is interesting to note that while all of these companies made extensive use of color and imagery associated with nature and pristine natural settings, none of them used words or slogans to that effect. Rather, the narratives on these websites tended to appeal to consumers' cognitive faculties with independently verifiable facts. As such, these websites were strong on the functional dimension and weak on the emotional dimension.

Table 4. Corporate branding messages that appeal to emotional dimensions on websites

Perception > Reality	*The use of words with that appeal to emotional benefits of being green*	*Use of color and imagery that appeal to emotional benefits of being green*	*Dedicated Website to Green Initiatives*
Dell		✓	✓
HP		✓	✓
Apple	Some	✓	✓
Microsoft		✓	✓
Perception < Reality	*The use of words with that appeal to emotional benefits of being green*	*Use of color and imagery that appeal to emotional benefits of being green*	*Dedicated Website to Green Initiatives*
Nokia		✓	✓
Samsung		✓	✓

Table 5. GreenFactor vs. Greenpeace Matrix



Discussion

Given that the appearance of greenwashing can be damaging to brand image, IT companies appear to be cautious in how they present information regarding their corporate social responsibility commitments and achievements. They tend to focus on factual information and general compliance intentions and refrain from emotional strategies that appeal to deeper consumer values. This caution is understandable from a strategic risk perspective, but may undermine the overall effectiveness of their green branding efforts. As to the question of why discrepancies exist between actual corporate greenness and public perceptions of corporate greenness for a number of firms, the study of corporate websites did not provide a definitive answer. It is possible that websites alone may not adequately capture the overall green branding strategies of a company. Another explanation is that most corporate sustainability statements are highly unreadable (Chan et al, 2011). Chan et al (2011) finds that most corporate responsibility statements require at least 22 years of education in order to comprehend.

IT vendors tend to tout factual information regarding the functional attributes of their green initiatives, focusing less on emotional appeals to benefits of being green. While it might be posited that "greener" brands might be more proactive or vocal in focusing on values and emotions related to CSR, the tendency toward functional information on corporate websites does not seem to be influenced by either the firm's perceived greenness or actual greenness, as highlighted by the GreenFactor and Greenpeace studies. One explanation could be that product attribute beliefs are more significant determinants of purchase decisions, and hence firms focus on communicating such information (Mitchell, 1986). As such, with respect to corporate PR and communications – even on CSR-based web pages – IT firms appear to be sticking to similar strategies they have in the past, focusing on functional product benefits rather than value-based brand attributes or benefits.

In Table 5, firms' scores from the GreenFactor and Greenpeace studies are plotted so that a two-by-two matrix may be constructed. Herein, brands can be seen along dimensions of "low" or "high" actual brand greenness as compared with "low" or "high" perceived brand greenness. These four quadrants are labeled as follows.

- Environmentally Responsible: high perceived greenness, high actual greenness
- Environmentally Shy: low perceived greenness, high actual greenness
- Environmentally Irresponsible: low perceived greenness, low actual greenness
- Greenwashers: high perceived greenness, low actual greenness

By constructing and labeling the matrix as such, the implications of brand strategies and public perceptions can be more easily understood. As will be discussed in the following section, the greatest opportunity seems to lie in the Environmentally Shy category, whereas the greatest threat appears to lie, not surprisingly, in the Greenwashers category.

Managerial Implications

While most websites feature nature imagery, none used language to appeal to consumers' emotions with respect to green business and benefits. There appears to be an opportunity for IT vendors to create a distinctive green branding and positioning strategy related more intentionally to consumers' emotions and values with respect to sustainability.

The green branding strategies of the major IT firms studied are similar in nature and scope, and building a distinctive, consistent and "strong" brand in this mature and competitive industry can be considered challenging. Some companies are attempting to break away from the pack by actively to position themselves as pioneers in environmental responsibility. Dell's public ban on e-waste export, for example, is a step in this direction. Apple strives through aggressive and proactive corporate communications to stress its leadership role in many sustainable practices.

Companies in each quadrant of Table 5 should take action accordingly. Companies classified Greenwashers should consider taking a more proactive approach to environmental responsibility in an effort to bring actual corporate practice in line with public perception. Otherwise, corporate reputation may be hurt in the long run as consumers become more educated about corporate practices and realize that reality does not match expectations. Environmentally Shy companies might benefit from more aggressive communication strategies, to informing customers of proactive practices to reinforce purchase decisions, or motivate future ones. For firms considered Environmentally Irresponsible, this may be considered a wakeup call – connected and informed consumers are aware of business practices, and public perceptions of the brand are reflective of that. What is most interesting is that those firms classified as Environmentally Responsible in reality score toward the mean on the actual practice scores, edging relative close to the greenwashers quadrant. These companies are advised to maintain their focus and proactive efforts on sustainability and greening of their brands, as reductions in strategic focus on CSR may lead to an easy fall into the category of greenwashers.

In light of these findings, what should IT manufacturers do to promote environmental sustainability? The traditional view of green IT is limited to energy conservation and firms need to adopt an integrated framework in creating business

strategies (Dao et al, 2011). In many instances, IT vendors need to think beyond the energy consumption of their products and consider how their products can create value in an integrated framework as suggested by Dao et al.

Limitations and Areas for Further Research

The GreenFactor study and the Greenpeace scorecard used two different definitions of what constitutes "green" and thus the results may not be directly comparable. This limitation, however, highlights the lack of a commonly accepted definition of what "green" means with respect to branding, and therefore IT vendor brands. Furthermore, corporate websites require users to actively seek information, while other brand positioning strategies tend to push messaging to consumers in a more targeted fashion. Such brand positioning strategies (for example, public relations) are not included in this study, and further research may be beneficial. IT consumers, particularly in professional contexts, often face significant cost pressures and the importance of green branding in actual purchase decision-making is uncertain. Further study of how brand greenness affects purchase intentions is warranted.

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