

CURRENT SUSTAINABILITY MARKETING AND COMMUNICATIONS EFFECT TO CONSUMERS ATTITUDE TO PURCHASE SUSTAINABLE PRODUCTS

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ABSTRACT

The World Business Council for Sustainable Development defined eco-efficiency as "the delivery of competitively priced goods and services that satisfy human needs and bring quality of life, while progressively reducing ecological impacts and resource intensity, throughout the life cycle, to a level at least in line with the earth's estimated carrying capacity" (IISD, 2012). Moreover, the United Nations Conference on Environment and Development (UNCED) at Rio de Janeiro in 2002 informs that all those who are affected by environmental decision-taking should be able to participate and that they should have effective remedies and redress for the wrongs they suffer as a result of environmental degradation (Hughes et al, 2002). However, consumers do not understand the problems of environment, potential solutions becomes very difficult to get customer attention. Wanger (1997) reported that only about 10 per cent of British consumers said that they have integrated environmental issues very constant in their purchasing behaviour. WBCSD (2008) also pointed out that many consumers remain confused about which products are better for the environment according to the consumers International and the UK's National Consumer Council report (WBCSD, 2008 and Wanger, 1997, P 14).

KEYWORDS: Eco-Efficiency, Customer, Sustainability

INTRODUCTION

WRAP (2010) mentions consumer behaviour is clearly a key element in the phase of selling consumer electronic products, Wanger (1997, P11) defined consumer behaviour as the acquisition, consumption, and disposition of goods, services, time and ideas by decision-making units, green consumer behavior as "the purchasing and non- purchasing decisions made by consumers, based at least partly on environmental or social criteria. Schiffman et al (1987, P67) makes the point that motivation refers to a very basic level of the psychological make-up of human beings, motivation has been defined as the driving force within an individual that impels him or her to action. In this paper will through review current sustainability marketing and communications such as Environmental Product Declaration (EPD), Product Category Rule (PCR), Eco labels, and explore consumer attitudes to sustainable products.

OVERVIEW CURRENT SUSTAINABILITY MARKETING AND COMMUNICATIONS

Review of Environmental Product Declaration (EPD) & Product Category Rule (PCR)

EPDs are eco-labels that measure and reveal the environmental performance of products, such like a nutrition label, reporting impact indicator results such as carbon footprints, water consumption, and ozone depletion. (Schenck, 2009), which is a method to provide environmental information to public decision-making introduced by the European Union, which is a symbol designed to encourage businesses to design and create products that meet environmental standards. (Wimmer et al., 2010). The EPD standards require that a PCR be developed for each system functional unit (Schenck, 2009). The most recent ISO-proposal for a definition of environmental label or declaration is that

"communication of a product environmental claim that may take the form of statements, symbols, or graphics on the product or package labels, product literature, technical bulletins, advertising, publicity, etc." (Competition Bureau Canada, 2008). Eco-label is a method to provide environmental information to public decision-making.

The ISO 14020 Family Covers three Types of Eco-Label (IISD, 2013)

- **Environmental Labeling Type I**

It is presently defined by ISO 14024, which is a multi-attribute label developed by a third party, those Eco-label schemes include that the Blue Angel in Germany, Nordic Swan in the Nordic countries, EU flower in the EU, Environmental mark in Japan and Korea and Environmental Choice in Canada, etc. (Wimmer, et al, 2010).

- **Self-Declared Environmental Claims or Type II Environmental Declaration**

It is presently defined by ISO 14021 as a label or declaration that indicates the environmental aspects of a product or service that may take the form of statements, symbols or graphics on the product or packaging labels, product literature, technical bulletins, advertising, publicity or similar applications (Wimmer, et al, 2010).

- **Environmental Product Declarations (EPD) or Type III Environmental Declarations**

It is presently defined by ISO 14025, which were created to fit the consumer request for detailed environmental impact information of a product (Wimmer, *et al*, 2010). The most recent ISO-proposal for a definition of environmental label or declaration is that "communication of a product environmental claim that may take the form of statements, symbols, or graphics on the product or package labels, product literature, technical bulletins, advertising, publicity, etc." (Jensen *et al*, 1997). Different types of environmental Labels and declarations, advantages, disadvantages and application areas shown in Table 1.

Table 1: Different Types of Environmental Labels and Declarations, Advantages, Disadvantages and Application Areas

Item	Type I	Type II	Type III
Generic Name	Eco Labelling	Self-declared Environmental Claim	Environmental Product Declaration
Target Audience	Retail Consumers	<ul style="list-style-type: none"> • Retail • Industrial • Institutional Consumers 	<ul style="list-style-type: none"> • Industrial • Institutional • Retail Consumers
Communication Method	Environmental Label	Text and Symbol	Environmental Profile Data sheet
Scope	Whole life cycle	Single aspect	Whole life cycle
Use of LCA	No	No	Yes
Advantage	<ul style="list-style-type: none"> • Easily identified • Quick decision • Credibility through third party 	<ul style="list-style-type: none"> • Market oriented • Flexible approach to market needs • Tool for inter-business competition 	<ul style="list-style-type: none"> • Detailed data via common method • Credibility via scientific quantitative data
Disadvantage	<ul style="list-style-type: none"> • Only uses a symbol (logo) • No detailed information • No linkage to company's unique effort 	<ul style="list-style-type: none"> • Relatively low credibility • Need to face consumers directly (no third party) • Claim is about a single issue or limited 	<ul style="list-style-type: none"> • Complicated LCA analysis • Insufficient background data • Not easy to comprehend
Application area	<ul style="list-style-type: none"> • Home use products • Simple function products • Low priced products 	<ul style="list-style-type: none"> • Products in general 	<ul style="list-style-type: none"> • Products for industrial use • Complicated and high priced products • Durable products

Source: Lee et al, 2003

According to the EPDs regulation in tabular form should include environmental data such a number of environmental impact categories, as the example in Table 2. However, no information is provided on whether the scores are high or low compared to other products. For an experienced user it may be possible to compare two EPDs (for products within the same product group, i.e. with comparable functional units) by comparing the numbers for each impact category, however, a major problem with this kind of application is not adequate for a quick comparison by a lay user. Consumers may not able to relate the numbers to any environmental impact, and to consider the importance of the numbers (Christiansen, et al., 2006).

Table 2: An Example of Tabular Presentation of Environmental Impacts for an EPD

Impact category	Before our gate	Our production	Use	End-of-Life	Total
Nature occupation [m ² eq arable land]	3.6	No data	16.5	-0.272	19.8
Global warming [kg eq CO ₂]	61.4	8.8	311.1	-6.3	375.0
Acidification [m ² unprotected ecosystem]	6.2	0.30	50.0	-0.532	55.9
Eutrophication [g eq NO ₃ -]	0.28	0.04	1.42	-0.0240	1.71
Photochemical ozone formation [m ² *hr*ppm ozone]	952	202	3656	-105	4705
Human toxicity (into air, only carcinogenic effects) [kg chloroethylene-eq]	21.0	1.7	100.0	-1.7	121.0
Injuries [fatal injuries equivalents]	1.66E-07	1.64E-08	2.68E-07	-7.55E-09	4.43E-07

Source: Christiansen, et al., 2006

Overview Current Eco-Labels and Regulations

Eco labels are a method to provide environmental information to public decision- making. International Standardization ISO defined Ecolabel to three types I, II, III. The most recent ISO-proposal for a definition of environmental label or declaration is (ISO 1997e) that "communication of a product environmental claim that may take the form of statements, symbols, or graphics on the product or package labels, product literature, technical bulletins, advertising, publicity, etc." (Competition Bureau Canada, 2008).

Some examples of the format of presentation methods and Eco-labels that are around the world such as UK's PepsiCo have been using the Carbon Trust to their product. Walkers Crisps, and Innocent Drinks; the Max fast food chain had put detailed information about the carbon impacts in Sweden; French supermarket Casino is trialling an on-pack traffic light carbon label that highlights wither a product has a high (Red), medium (Amber) or low (Green) Carbon impact interims of waste, packaging and transport; Sapporo Breweries Ltd. Plans to introduce a carbon label in its 350 millilitre cans of Black Label draft beer in the first half of 2009 in Japan; In the UK, Highland Spring which is the UK's largest bottled water producer and Tesco, have been tagged carbon label to their product in 2008 (Upham et al., 2009). Some example of regulations will explain in the below.

Regulations

ISO 14067- Carbon Footprint of Products

The International Organization for Standardization (ISO) is working on a new standard for "Carbon Footprints of Products" for the quantification and communication of GHG emissions associated with goods and services by providing clarity and consistency for quantifying, monitoring, reporting and verifying the carbon footprint of products. Which will be includes two parts, ISO14067 Part 1: specifies principles and requirements for studies to quantify Carbon Footprint of

Products (CFP), based on the method of life cycle assessment (LCA); And ISO14067 Part 2: specifies requirements for the development of information to communicate the carbon footprint of products, calculated according to Part 1 of ISO 14067; Guidelines how to use such information on the CFP (European outdoor sustainability, 2010).



Source: Fortune Oriental Environment & Resources, 2009

Figure 1: Example of Carbon Footprint Labels

- **France's "Environnemental Product Declaration Programme"**

France government has passed a law (Grenelle II Law) requiring that all high volume consumer products sold in France must bear an EPD, designed in accordance with the guidance produced by the French Standardization body, AFNOR (Association Française de Normalisation) (HKTDC, 2011). That requirement comes into force at the end of 2010. We can expect the EU to follow soon afterwards, because the European Committee on Standardization is developing such standards. In Japan, there are efforts underway to have a national EPD as well (Schenck, 2009).

This voluntary environmental labelling scheme will be "tested" from 1 July 2011 to 1 July 2012 in the form of a one-year pilot labelling project. The experiment will be subject to an evaluation, to be subsequently transmitted to the French Parliament may become a stand law in the future (PRé Consultants, 2012).

- **Carbon Footprint – Carbon Trust**

Previous studies have reported that the most consumers do not even understand what carbon labels mean. The meaning of a label with a figure of footprint "75g" on a packet of crisps is not immediately obvious (Kasterine, 2009).

Kasterine (2009) highlights that only 28% of the UK's shoppers knew carbon label related to climate change, nearly half confused the label with fair trade, and most of them believed that the amount of carbon emitted during the item's production was important to show.

The key problem with this explanation is that the most of people don't want to be green if that means missing out their holiday in Barcelona, heating a bigger house or running a bigger car.

- **Japanese Carbon Footprint Labels**

The Japanese government is pursuing a carbon footprint Ecolabel to be applied to all products sold in Japan, with labels provided on the package. Standardisation is underway, with full implementation planned for 2010-2011. The Figure 2 is an example of the proposed label for Carbon footprint. The Japanese system too is being developed through a combination of national standards (Japanese Industrial Standard) and sector-based specific decisions for product category rules which are followed all the requirements of ISO 14040, 14044 and 14025. The sponsoring governmental body is

METI, the Ministry of Economy, Trade and Industry. The Japanese efforts have many parallels to the efforts in France (Schenck, 2009).

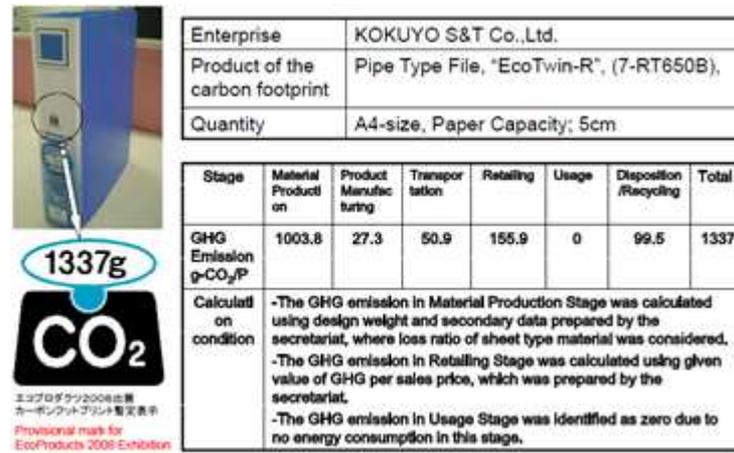


Figure 2: Example of Japanese Carbon Footprint Label

• Flybe - Eco-Labeling Scheme on Flight

Flybe has become the first airline to introduce eco-labelling scheme on all flights, their labelling is divided into three categories: local environment, journey environment and passenger environment, will explain in a detailed but user-friendly way the fuel consumption, carbon emissions, noise ratings, minimum leg room and number of seats of their aircraft. The eco-labelling scheme will allow passengers to assess the environmental impact of their journey and decide whether they want to carbon-offset that journey (Flybe, 2007).



Source: Flybe, 2007
Figure 3: Flybe - Eco-Labeling Scheme on Flight

According to European Union legislation by the European Commission (2011) recorded that Energy labelling requirements applies to specific electric mains-operated household appliances. The Energy Efficiency is to be calculated by the manufacturers and presented within this Eco-Label. If a company manufacture or sell certain household electrical equipment within the European Union, one must clearly label their products with their energy efficiency rating. This helps consumers to make a better-informed decision. However, all the studies reviewed so far, not all products had Energy Efficiency.

Energy labels are adopted by the European Commission on a product by product basis (energy labelling Directive 2010/30/EU). Energy labelling regulations have been agreed to apply on televisions, refrigerators, dishwashers and washing machines. In the past 10 years, Refrigerators, dishwashers and washing machines have already been displaying the energy label with the A to G classes. The new labelling system allows up to three classes (A+ to A+++), this labeling system can help customer to choose electricity saving product, in order to save their electricity bill (European Commission, December 2010).

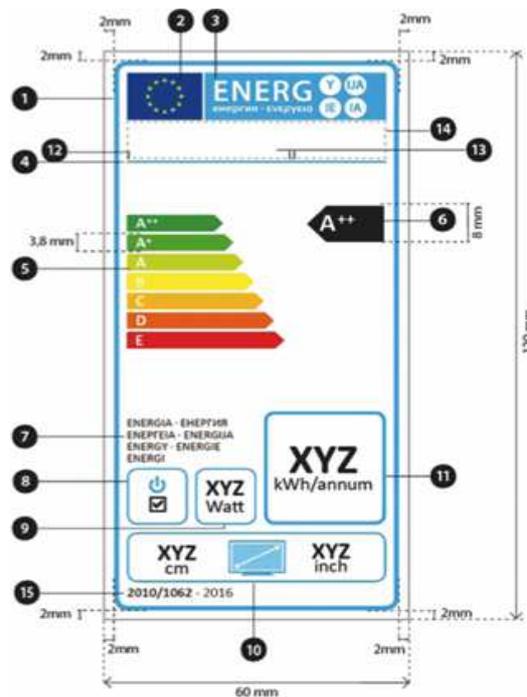


Figure 4: EU Energy Efficient Label

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CONSUMERS ATTITUDE TO SUSTAINABLE PRODUCTS

To understand consumer behaviour we should know that how much consumers know about the green product, what information they will pay attention to, and what kind of information will affect their choice, which will reflect what kind of product attributes a consumer has attended to and what information has been used for assessment of the environmental friendliness of a product (Wanger, 1997, P14). Ottman (2011, p111) provided six strategies of sustainable marketing communication:

- Know your customer
- Appeal to consumers' self-interest

- Educate and empower
- Reassure on performance
- Energy the community
- Be credible

One simple question, can existing consumer sustainability information is understood by the consumers? The answer is “No”; most of the consumers are confused by the existing sustainable information.

Most of the customer does not have a high level of understanding about eco- products, and most of the customers think that "Green products "would have lower specifications and a higher price. Therefore, the best way to help consumer behaviour to change towards sustainability will be developing a method to educate them (Dobson, 2007; Ottman et al., 2006 and Young et al., 2010).



Figure 5: Carbon Trust Labels on Orange Juice

Recent evidence suggests that consumers generally wanted more information on Eco features before purchase. Consumers like to array their purchasing choices with their green tenets, and they approval markets, efforts to provide the sustainability information they need to make informed purchasing decisions as well as to use and dispose of the products responsibly (Ottman, 2011, P115). ConeCause Evolution Study (2008) reported 79% people say they would likely to switch from one brand to another, when price and quality are about equal (Ottman, 2011, P125). In addition, consumers were mainly interested in how they could make savings on their energy bills (WRAP, 2010 and Platt et al., 2009). Therefore, the information provided to customers should include product performance, pricing, packaging and supply chain from sourcing, production and distribution through to the consumption and disposal (Deloitte^a, 2009). Peattie (1995) provides a definition of Green shoppers, which means the customer whose purchasing decisions is based on least partly on environmental or social criteria, they will be a great customer target, representing a high value segment that buys more products on each trip, visits the shop more regularly, and demonstrates more brands and retailer loyalty in their purchasing behaviour (Deloitte^b, 2009).

There are numerous motivating factors behind the decision to take part environmental issues, many of which are interrelated such as consumer demands, compliance with legislation, community needs for environmental improvement, security of supply, and product and market opportunities (Jensen *et al.*, 1997).

CSCP (2007) report that 58 % of consumers receive information from retailers before making buying decisions for electronic products. This research show to provide information within a retail store is very important, because the knowledge that consumers are gaining can directly lead to action to choose the more sustainable product.

CONCLUSIONS

Upham et al. (2009) suggests that to make customer to take more actions, or even make better decisions during their purchases of green products, however, The existing Eco-labels may be one of the solutions to increase consumer awareness; however, there are more than 400 eco-labels and certification in existence, but it is not much greener products actually have an eco-label, even they do, there's no guarantee can make consumers recognize or understand it (Ottman, 2011, pp.36-37), the most of the consumers are actually very confused by the existing sustainable information. Climate Action (2011) agrees that consumers may be confused or misled by it.

Wanger (1997, P 190) also found confusion to affect green shopping decisions, which had a negative impact on actual behaviour. Therefore, creating an eco-performance which is less confusing and easy-to-understand are crucial, it may inform consumers be more aware of environmental issues and to purchase products that are making a less negative impact environmentally and socially.

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