Governing Technology for Sustainability

Edited by Joseph Murphy

EARTHSCAN
London • Sterling, VA
Chapter 2

Decoding Governance: A Study of Purchase Processes for Sustainable Technologies

Seonaidh McDonald, Panayiota Alevizou, Caroline Oates, Kumju Hwang and William Young

Introduction: The individual and sustainable technologies

In this chapter we will examine the relationships between sustainable technologies and the governance structures in which they are embedded. These structures and relationships involve government, business and civil society groups. We present data gathered through 81 semi-structured interviews with a wide range of green consumers about their purchase processes for technology-based products, such as fridges, washing machines and light bulbs. We will examine the data in order to uncover to what extent the governance practices of public institutions, private companies and civil society groups are evident in the purchase (or non-purchase) process. In other words we aim to discover how governance is being decoded by the end user (Du Gay et al, 1997).

Like the consumers cast as obstacles in energy efficiency research (Shove, 1997), consumers are often drawn in the governance debate as invisible, automatic in their responses, or passive in their acceptance of information and products. Our work seeks to question this view of the consumer by problematizing the relationship between production and consumption and examining the purchase process in minute detail. In this study we will therefore focus on individual members of the public. We do not, however, view the public as a
homogenous mass, or as a group of ‘market segments’ that are more or less disposed to ‘green products’ such as might be presented in traditional marketing (e.g. Solomon, 2002). Rather we follow Peattie (1999) and view each individual as the author of a range of separate purchase decisions. These will add up to a portfolio of purchase verdicts which characterize that individual’s consumption patterns. Within that portfolio there will be decisions that seem to be incompatible with other purchases or lifestyle choices. There could also be a heterogeneity of purchase processes and influences within the set of choices made by any one individual.

From this perspective, the link between sustainable technologies and sustainable consumption is a series of individual purchases. If people do not purchase products that incorporate sustainable technologies, then any reduced environmental impact or other innovation that designers and manufacturers intended can never be achieved. Individual purchases lie at the heart of the problem of sustainable development because they are at the crossover point between production and consumption practices. That is not to say that we view this relationship as a simple one. We see purchase processes as complex, socially embedded, situated acts. We believe that they are informed by (competing and/or paradoxical) lifestyle values, which an individual develops (implicitly and explicitly) and lives out (implicitly and explicitly) over time.

The individual and governance structures

From our individual-centric point of view, governance (and technology) can be seen as part of the social infrastructure and context of purchasing. As such, it impacts on individual purchases through a wide range of factors such as availability, variety and price. Private and public institutions and civil society groups all influence, directly and indirectly, the types, specifications and numbers of products that are manufactured and therefore available on the high street. If innovations are not subsidized (in the widest sense of the term) by government or championed by companies, then they will not be part of the spectrum of products that individuals can choose between. In this way, governance structures (private, public and societal) act as a sort of filter, which pre-selects a range of products that the consumer can then consider.

Furthermore, governance structures and relationships clearly have a significant impact on the ways in which social, ethical or environmental problems are framed, and therefore on the ways that they are understood by individual consumers. However, the multilayered and interdependent effects of governance also have a profound and implicit effect on the ways that consumers ‘read’ and understand technology products. That is not to say that we would regard the public as a group of individuals who are the passive recipients of government policy, corporate advertising or civil society group lobbying. The ways in which individuals engage with, and make sense of, the potential relationship between technology-based products, the purchase processes they might take part in and the global issues that concern them will be endlessly complex, changing and essentially unpredictable.

Individuals do have a degree of control over the operation of public and private sector bodies in order to influence the number of other issues, whilst the green consumer may use their purchasing power to influence price, for example. Purchase processes that are less influential in the process of change lies outside the scope of this study.

In terms of the perspectives described in this book (Murphy, this volume), our research takes a bottom-up, participatory decision-making approach, focusing on the explicit and implicit democratic processes, and the practical focus, which deals with the consumer decision-making process and the use of new technologies. The work has taken us from people’s purchases of a wide range of products in their domestic white goods, energy efficiency and purchased these products. Moreover, we also interviewed a number of people in the Netherlands to contrast the purchase experiences of individuals who are involved in the process of snowballing through the process of snowballing, by interview, involving interactions and organizations, including the British Ice Bucket, the Earth, UK Quakers sustainability, fair trade, vegetable box schemes and a diverse mix of age, gender and socio-economic consumers to articulate the relationship between policy and practice (Gutman, 1982, 1987; see also Graham, 2004), lasting around an hour and conducted in situ, as well as a commentary on the interview.

There are two features of the purchase process that are important for our research. The first is the purchase process itself as a social experience that may begin with the explicit articulation of family values, political views or the purchase process itself as socially situated and practical.
Individuals do have a degree of power within these governance structures. For example, their voting and purchasing acts may effect gradual changes in the operation of public and private institutions over time. Equally, they can use their membership of civil society groups to signal their views to public and private sector bodies in order to hasten change. This is not a uniform process, as green consumers may use their consumer power to back fair trade, or any number of other issues, whilst grey consumers are simultaneously trying to use theirs to influence price, for example. However, our units of analysis are real purchase processes that are located in the near past, and so this incremental process of change lies outside the scope of our problematic.

In terms of the perspectives on sustainability outlined at the start of this book (Murphy, this volume), our approach clearly fits within the environmental decision-making approach. However, our concern is not with inclusivity or participation in the explicit democratic processes of government, but with the implicit democratic processes of governance through consumption. Ours is a practical focus, which deals with the sub-structure, or wide end of democracy.

Method

This study is part of a wider project that aims to uncover a detailed picture of the consumer decision-making processes involved in the purchase of sustainable technologies. The work has taken a grounded approach to researching actual purchases of a wide range of products with a technological component, such as domestic white goods, energy tariffs, cars and light bulbs. For this study we conducted 81 semi-structured interviews with individuals who had recently purchased these products. Most of our sample were green consumers, although we also interviewed a number of grey consumers in order to compare and contrast the purchase experiences of these groups. Interviewees were recruited through a process of snowball sampling. This process was initiated by interviewing individuals contacted through a wide range of publications and organizations, including the Ethical Consumer, wholefood shops, Friends of the Earth, UK Quakers sustainability self-help group, Buddhist centres, organic vegetable box schemes and Pure magazine. The final sample contained a balanced mix of age, gender and socio-economic groups. In order to help consumers to articulate the relevant level of detail, laddering techniques were used (Gutman, 1982, 1987; Reynolds and Gutman, 1988). Each interview lasted around an hour and covered the purchase of two or more products, as well as a commentary on the individual’s more routine weekly shopping habits.

There are two features of this micro focus that we view as particularly important for our research. The first is the level of detail that we elicit about the purchase process itself as well as its social context. This means that we do not view the purchase at the moment of sale, but see it as an indefinite process that may begin with the explicit search for information or the implicit echoing of family values, political views or advertising claims. We see the purchase act itself as socially situated and part of a developing lifestyle.
The other strength of this micro approach is that it deals with specific purchases. Hence we are not interested in asking participants to talk about future, hypothetical purchases, but rather about actual purchases they have been involved in. Thus we would like to signal the contrast between the sometimes conceptual and abstract view of ‘technology’ and ‘sustainability’ with our research into concrete and specific purchase decisions about those technologies, which play out as more or less sustainable patterns of consumption.

Based on the data, a number of different, inter-related analyses have been undertaken. For example, we have looked at how decision criteria are involved and evolved in the purchase process (Young et al., 2005), and how different kinds of information sources are used by consumers (Oates et al., 2005). In this chapter we present the results of an analysis of how different aspects of governance are manifest in the consumer practices and conceptualizations of purchases processes.

In line with our grounded approach we have examined the purchase narratives for evidence of governance concepts. Examples of this would include, for instance, where people discuss the effects of regulation (such as the European Union (EU) Energy Label), or aspects of corporate social responsibility (such as good or bad working conditions), or the influence of consumer groups (such as Soil Association labels). We have not asked our interviewees to reflect on governance issues, but simply asked them to tell us in detail about their (non)purchase processes. Therefore, if issues relating to significant governance debates are not present in the data, we might assume that either these notions are too deeply implicit to articulate, or that the artefacts discussed are silent on such matters. In this way, the research can be seen to be taking a grounded approach to the problem of whether or not governance is being decoded by green consumers. The outcome of this process is presented below.

Theoretical framework: Circuit of culture

The circuit of culture model has its roots in the work of Stuart Hall (1980) and his colleagues at the Centre for Contemporary Cultural Studies (Johnson, 1986). His encoding/decoding model was part of a movement towards post-structuralism in cultural studies. Hall used this model to conceptualize the processes that were encapsulated by watching television. The model is based on his insight that meaning is jointly socially constructed by both the ‘author’ and the ‘reader’ in a continuous circuit of moments of production, distribution and consumption of cultural objects (Du Gay et al., 1997). What this means is that an unread ‘text’ or object does not have a complete meaning until it has been consumed; that its meaning cannot be determined by its author alone. Meaning is not fixed in the sense that it remains the same over time, nor will it necessarily be understood in similar ways by different readers.

This approach has resonance with the notion of ‘interprettive flexibility’ that has been developed in the Technology Studies literature (Kline and Pinch, 1999). This raises the idea that an artefact can be ‘read’ differently by different social groups. However, a cultural artefact may be read in different ways at the same time as they struggle to make sense of the trade, resource use and anti-consumerist cultural consensus is ever reasserted. This process is never viewed as static. Baudrillard (1998, p.27) states: ‘‘context of objects which “speak” investigating them is not a single activity. Rather, we hope to understand the references that are gathered in the circuit of culture products and the purchase process.

The circuit of culture model provides a means of understanding the discourse of green consumers. It allows us to separate the different levels of governance and to understand cultural sense from the ‘moments of decoding and ‘allow ourselves to be in the circuit of culture (John 1997). In the analysis of this book, we consider more informal institutional practices, habits, routines, cultural values that seek evidence of several different levels of interrelationship that help us understand the discourses of green consumers.

In this analysis we are going beyond, such as governments, consider more informal institutional practices, habits, routines, cultural values that seek evidence of several different levels of interrelationship that help us understand the discourses of green consumers.

- Business – Examples of corporate social responsibility, including energy and waste management, and other activities linked to the company as focusing on the production about the way that the products or disposed of (e.g. design, industry-level governance) or whole sectors like Fairtrade.
- Government – Here we make systems or community ed...
that it deals with specific participants to talk about but actual purchases they have the contrast between the some- and 'sustainability' with our visions about those technologies, norms of consumption.

Inter-related analyses have been on decision criteria are involved et al, 2005), and how different numbers (Oates et al, 2005). In this way different aspects of gove- rnt and conceptualizations of

The examined the purchase narr- atives of this would include, for regulations (such as the European ne social responsibility (such as nce of consumer groups (such as interviewees to reflect on gover- detail about their (non)purcha seant governance debates are not er these notions are too deeply isued are silent on such matters.

A grounded approach to the dec ideas by green consumers.

Circuit of culture

work of Stuart Hall (1980) and the Cultural Studies (Johnson, of a movement towards posthis model to conceptualize the evolution. The model is based on structured by both the 'author' and of production, distribution and 1997). What this means is that plete meaning until it has been ed by its author alone. Meaning e over time, nor will it necessar- readers.

in of 'interpretive flexibility' that terature (Kline and Pinch, 1999). d' differently by different social

groups. However, a cultural analysis would extend this insight and contend that, due to the context dependent nature of the purchase process, the same artefact can be 'read' in different ways by the same consumer at different times. In fact, a green consumer may read an artefact in different ways at the same time as they struggle to make sense of competing cultural frames such as fair trade, resource use and anti-consumption values. That is not to say that no cultural consensus is ever reached about the meaning of an artefact, just that this process is never viewed as complete, apolitical or unproblematic. As Baudrillard (1998, p27) states: 'Few objects today are offered alone, without a context of objects which "speaks" them' [emphasis in original]. What we are investigating then is not a single, fixed or uncontested 'meaning' of governance activities. Rather, we hope to uncover some of the layers of interdependent influences that are gathered in the 'symbolism' (Murphy and Cohen, 2001) of technology products and the purchase processes that consumers engage with.

The circuit of culture model is interesting for our analysis of governance in the discourse of green consumers about their purchase of sustainable technologies. It allows us to separate the notion of the production (both physically and, more significantly, culturally) of an object (like a low-energy light bulb) in a cultural sense from the 'moment' of consumption of the meaning of that object (Burgess, 1990). In the analysis that follows, we will focus on the process of decoding and 'allow ourselves to be practically preoccupied with one moment' in the circuit of culture (Johnson, 1986, p284). We will analyse the detailed accounts of purchasing sustainable technologies that have surfaced in our work with green consumers in order to discover how (and whether) they are decoding the information relating to the governance for sustainability that is encoded in their (non)purhcases.

In this analysis we are going to highlight the formal institutions (Neale, 1987), such as governments, companies and civil society groups. Elsewhere we consider more informal institutions (Oates et al, 2005) such as kinship groups, habits, routines, cultural values and social norms (Parrot, 2005). Our analysis seeks evidence of several different scales of governance in the data and considers different levels of interrelation (Parrot, 2005). In particular, we look for data that help us understand the decoding of:

- Business – Examples of corporate-level governance activities might include corporate social responsibility (CSR) initiatives like greener production, including energy and waste reduction or use of recycled materials, ethical labour conditions and other forms of social justice. These issues could be linked to the company as a whole, or to an individual product. As well as focusing on the production of the product, information may be decoded about the way that the product can be used (e.g. the Wash Right campaign) or disposed of (e.g. design for recyclability). There may also be evidence of industry-level governance initiatives that are being implemented across whole sectors like Fairtrade or Soil Association accreditation.

- Government – Here we may uncover local government actions such as waste systems or community education programmes. This category would also
include all the national government and EU policies, guidelines and regulations that target sustainability in some way. In the case of sustainable technologies, the EU Energy Label is a good example.

- Civil Society Groups – This might include evidence of ways in which different groups are trying to frame environmental or social issues and/or link them with the use of specific technologies (e.g. carbon emissions and car usage). Equally interesting is the information that civil society groups provide in the hope of mediating the relationship between the consumer and the marketplace (such as Which? magazine and the Ethical Consumer magazine).

There are a number of issues which cut across these three. For example, the EU Energy Label is at the same time a regulation that is imposed by supra-national government, an industry-wide scheme for white goods, a measure that the company uses to communicate the energy usage of a particular product and a measure advocated by Which? magazine for determining running costs. What we are trying to discover is whether there is any evidence of governance activities having an impact on the consumers’ decision-making processes. Every product purchased (or not) can be viewed as the culmination of a variety of different governance processes. When people engage with the end products, do they ‘read’ the evidence of any of the governance processes, or do these remain invisible to the consumer?

Findings

In the following sections we shall consider how governance concepts are being decoded by consumers in relation to the three main stakeholder groups: Business, Civil Society and Government.

Business and governance

Perhaps the most interesting pattern that has surfaced in our data is the very different ways that consumers treat the purchase of technology-based products compared with their approach to weekly shopping. This is perhaps not surprising in itself: the marketing literature would characterize these as high- and low-involvement purchases, respectively (Hansen, 2005). However, what is very interesting for our research is that while consumers are quite discerning about the companies that they buy coffee or chocolate from, they do not take the same approach to decoding meanings about either the companies or the retailers that they purchase technology-based products from.

This is articulated in several ways. First, there is a group of individuals who treat these products groups in different ways but who do not see their behaviour as inconsistent, or in fact see it at all. For example, there are a number of consumers who are very concerned about the use of supermarkets because of the effect that they are having on supply chains and local producers. These concerns have led them to boycott supermarkets, buy from wholefood shops or local independent retailers. However, the same consumers buy from high-street clothing stores, supermarkets, chains such as Comet and Currys (which still have an ethical critique to these retailers in terms of the use of technology-based products).

There is, however, a second and third group who are ‘legitimately’ different. This group is made up of consumers who produce overseas, by large retail chains, with poor working conditions, and therefore in the next. Once they have made the decision to purchase a product, they find themselves as helplessly bound to making purchase decisions based on another criterion.

...most cookers are made in China, there is a huge choice of materials... (Interview 74)

...but from what I understand, as each other anyway...

I assumed, probably wrongly, that electrical goods are produced in China... (Interview 80)

Electronic and electrical goods... there is not a huge amount of difference... (Interview 74)

...there seems to be so much control of the suppliers... that's what the facilities... (Interview 65)

These views are consistent with the marketing literature, where people judge the social image of sustainability in most cases of unsustainably good products, as long as the company is socially consistent with each other.

The final group try to impose a set of rules on their purchasing. They are often seen as taking in buying fast-moving consumer goods, making their decisions based on what is available and does not cost too much. They are also seen as holding cleaning products or toiletries. This group encounters...
policies, guidelines and regulations. In the case of sustainable example.

dence of ways in which differential or social issues and/or link e.g. carbon emissions and carnation that civil society groups
approximation between the consumer and the Ethical Consumer
ese three. For example, the EU
at is imposed by supra-national
ite goods, a measure that the
of a particular product and a
terminating running costs. What
evidence of governance activi-
sion-making processes. Every
the culmination of a variety of
gage with the end products, do
processes, or do these remain
goverance concepts are being
see main stakeholder groups:
surfaced in our data is the very
t of technology-based products.
g. This is perhaps not surpris-
characterize these as high- and
), 2005). However, what is very
ers are quite discerning about
from, they do not take the same
companies or the retailers that
ere is a group of individuals who
not see their behav-
example, there are a number of
use of supermarkets because of
hs and local producers. These

collections have led them to boycott supermarkets in favour of other outlets such as wholefood shops or local independent stores for their weekly food shopping. However, the same consumers make use of the large white-goods supermarket chains such as Comet and Curry’s and do not apply the same level of social or ethical critique to these retail outlets when they are making purchases of technology-based products.

There is, however, a second group who treat the two product groups as ‘legitimately’ different. This group see, for example, that all white goods are produced overseas, by large multinationals in unknown but probably poor working conditions, and therefore any product and/or company is as bad as the next. Once they have made the decision to purchase a fridge they see themselves as helplessly bound to making an unethical purchase and simply make a decision based on another criterion, such as energy efficiency, instead.

...most cookers are made out of metal and glass so there is not a huge choice of materials... (Interview 22)

...but from what I understand most electronic equipment is as bad as each other anyway... (Interview 4)

I assumed, probably wrongly, that all manufacturers of consumer electrical goods are probably as bad as one another... (Interview 64)

I don’t think any of these electrical firms are ethical... (Interview 80)

Electronic and electrical goods, very difficult I think partly because there is not a huge amount to choose between different manufactures... (Interview 74)

...there seems to be so little ethical difference in a way between the suppliers... that’s why I made the decision on reliability and facilities... (Interview 65)

These views are consistent with current thinking in the sustainable development literature, where people judge themselves, not on individual acts, but on a holistic picture of their lifestyle. Thus they do not worry about individual unsustainable products, as long as, on the whole, they are following the principles of sustainability in most aspects of their lives (Gilg et al, 2005). This also has resonance with Peatrie’s (1999) understanding of consumers as making a portfolio of purchase decisions that are highly context dependent and not necessarily consistent with each other.

The final group try to implement the green or ethical approaches that they take in buying fast-moving consumer goods (FMCG), such as foodstuffs, household cleaning products or toiletries, in their purchase processes for technology products. This group encounter enormous difficulties and are forced to make
compromises due to the huge amount of research time, the availability of products, the cost of products or the non-existence of what they see as reliable information. For example, some of these consumers wish to buy second-hand appliances but then do not have information about the energy efficiency of the appliance and cannot select from a full range of brands, limiting their ability to select a more ethical manufacturer. This sort of compromise often sits heavily with the consumers, who are ‘troubled’ by the purchase process.

Well I am ashamed. I am a bit ashamed to say I bought a Creda so that didn’t rate highest in Ethical Consumer’s environmental list but the Consumer Association recommended it for various reasons in terms of efficiency and so on... (Interview 69)

...although it is very difficult because you know every day you hear some bad news about some firms that you previously thought was ok and people who you shopped with for years or bought from and thought were alright and suddenly it seems they are the baddies and I think it is hard. Some firms seem to be good in one area and bad in another and I think if you are trying to do the right thing it is very confusing and takes up an awful lot of time and at the end of it you think well I am just one small person but I do think about it, well yes definitely... (Interview 71)

Yes to an extent I suppose there are loads of different filters I would apply to purchasing and if I apply them all too strictly then I am not going to find anything at all. (Interview 74)

Most of the bicycles are made in far eastern sweatshops and it’s very hard to find a bicycle that’s got any recycled parts to it. The only thing I have found so far is second hand again, and that’s probably what I’ll do, but I was trying to buy a new bicycle. It seemed impossible to find an environmentally and socially acceptable bicycle. Which is quite odd because it’s a ‘green, cycling to work’ thing. (Interview 4)

Corporate social responsibility initiatives
In the purchase processes of the consumers we interviewed some brands were seen as safeguards against unethical practices and were used as shortcuts to dealing with complex global issues. The most frequent example of this in our data is the Co-operative Bank. In sustainable technologies there were perceptions of some German brands as environmentally superior. Sometimes this decoding was done on the basis of a national stereotype without any specific information about the company or whether the product was actually made in Germany.

I would imagine a German company would be as good as any because I know that the legal system in Germany is much tougher than ours on pollution... (Interview 64)

Bosch probably have a better policy as do most of the German ones or the American ones or the Japanese ones...

These sorts of associations with particular corporate policies have recently been discussed in the marketing literature.

Lack of corporate social responsibility
Where concrete ideas about CSR are discussed, it is more often than not, negative. It is often linked with a ‘brand’ to dismiss products. I don’t want to buy anything; I would kill manufacturers... (Interview 72)

...if someone is in a car, they fill up in ‘Esso’...

...avoid Marks & Spencer not because they are bad but because they support the Israel... (Interview 78)

However, sometimes consumers refer to these associations.

...Coca-cola particular water use in India and of course we have recently you know we avoid Coca-cola products...

...avoid Marks & Spencer not because they are bad but because they support the Israel... (Interview 78)

Still other consumers identify this as a criterion. For example,

I would certainly buy from them. I know for example...

...but I try to avoid products from President Bush and I buy Israeli... (Interview 78)

Where we did find evidence of some consumers using the purchase process for technology as a criterion for selecting products. This has interesting
Bosch probably have a better and more developed environmental policy as do most of the German manufacturers as compared to the American ones or the Italian ones... (Interview 74)

These sorts of associations with country-of-origin are not uncommon and have been discussed in the marketing literature (Liefield, 2004).

**Lack of corporate social responsibility**
Where concrete ideas about CSR were being decoded, we found that these were, more often than not, negative messages. Often the company name was used as a 'brand' to dismiss products. For example,

...if someone is in a car and I'm in the car with them I won't let them fill up in 'Esso'... (Interview 6)

I don't buy named brands like I would never buy Nike or anything; I would kill myself first... (Interview 72)

However, sometimes consumers had decoded specific meanings from brands:

...Coca-cola particularly recently hearing about their issues like water use in India and also links to death squads in Columbia so I have recently you know I have more recently found out about that we avoid Coca-cola products... (Interview 70)

...avoid Marks & Spencers because at the moment they are it is not because they are...it is not that they are bad alone but that they support the Israeli invasion of Palestine so until that ends even though I actually really like Marks & Spencers products and things I won't shop there just from a personal and political perspective... (Interview 72)

Still other consumers identify an issue and then evaluate all brands on a single criterion. For example,

I would certainly boycott companies or corporations which I know for example might fund animal experimentation... (Interview 78)

...but I try to avoid companies that I know have supported President Bush and I try to avoid things that I know come from Israel... (Interview 80)

Where we did find evidence that CSR activities were being decoded in the purchase process for technology products or FMCGs, we found that it was the company that was being judged to be 'good' or 'bad' and not the individual products. This has interesting implications for companies who seek to launch
'green' products alongside their more established 'grey' counterparts (e.g. Nestlé's launch of a Fairtrade coffee).

Lack of information on CSR activity
The most common response in our data pertaining to CSR was about how little information is available on the firms involved in producing technology products. Several of our respondents described looking for this kind of information but not being able to find any, or not knowing how to go about finding it.

...for example with cleaning products it's very easy to find environmental alternatives to the main brands that aren't environmental. But obviously with technological products it's not so easy to find... (Interview 14)

...[I] would like to do things like get a green or environmentally friendly energy and perhaps furniture that used you know that were good green companies as well. I don't know how I would find those or source those kind of companies... (Interview 77)

...bigger purchases like for the house as well such as furniture, kitchens, bathrooms things like that there is very little information you can make a judgement on the ethics of the company that supply those things... (Interview 73)

...so we asked the staff and they weren't aware in B&Q whether it was FSC (Forest Stewardship Council) or not and in the end we didn't buy anything... (Interview 73)

I have been interested in ethical consumerism for as long as I can remember really but I wasn't aware that there were any ethical ratings for things like that for appliances. (Interview 23)

Civil society groups and governance
For many consumers, the most reliable guide to help them make sense of which companies are 'good' is the Ethical Consumer, which is a magazine produced by the consumer group the Ethical Consumer Research Association. Another trusted source of reference for consumers is Which? magazine, published by the Consumers' Association, which is an independent charity. A number of consumers reported using either or both of these sources:

...according to the Ethical Consumer magazine Nokia have a better ethical record than others and I bought a Nokia mobile phone. (Interview 79)

...and we actually went for a Bosch which was one of the less bad choices from Ethical Consumer... (Interview 74)

...but it was Ethical Consumer decision... (Interview 47)

One of the starting points and my wife likes to read the magazine as well so it was... (Interview 49)

Just because I trust them independent and to look at the washing machine, the usage and the performance of the machine they will give you the options... (Interview 14)

I think largely...it is hard to find the Which? magazine reviews of a couple of models and proportions of the models and the factors like efficiency and everything... (Interview 72)

Well we started basically by asking around and we had gone around a couple of the sites, we did look at Which? from them as well so we went from there so it took us a little while... (Interview 72)

Although both of these associations are online, the consumers that we interviewed mostly use print versions of these publications and rely on them.

A number of other civil society sources of information for green consumers:

I think it may well have been the information, probably just went and what happened... (Interview 72)

Well again we get The Earth and you know (Interview 49)

I suppose Friends of the Earth would well recommend... (Interview 48)
...but it was Ethical Consumer that I would rely on in making my decisions... (Interview 45)

One of the starting points was that we have the Which? magazine and my wife likes to read that so we use that as a sort of the starting point. (Interview 12)

Just because I trust them [referring to the Which? Magazine] to be independent and to look at various aspects of for example with the washing machine, the noise level, the durability, the energy usage and the performance. If they've tested it against other machine they will give an impartial view, which is the best... (Interview 14)

I think largely...it is hard to remember I think largely based on the Which? magazine report which narrowed it down to only a couple of models and then I was looking at the price on those models and the factors we talked about before their reliability and efficiency and everything... (Interview 75)

Well we started basically from an Ethical Consumer point of view and we had gone around to a few shops like the big supermarkets and asked questions and then we kind of checked online at a few sites, we did look at Which? magazine kind of to see comments from them as well so we kind of got going from that and kind of went from there so it was kind of accumulating a lot of things... (Interview 72)

Although both of these associations have made many of their reports available online, the consumers that we interviewed still seemed to be using the physical versions of these publications available through friends, family or local libraries. This reliance on print-based media is perhaps surprising in this electronic age.

A number of other civil society groups also represent a trustworthy source of information for green consumers:

I think it may well have been Friends of the Earth, who provided the information, probably set out a schedule of the companies and which were the best and which were the most satisfactory and I probably just went ahead from there. In fact I'm pretty sure that's what happened... (Interview 35)

Well again we get The Ecologist, we get The Green Party's information, we get newsletters from Greenpeace and Friends of the Earth and you know yeah just and talking to friends, yeah... (Interview 49)

I suppose Friends of the Earth is a source of information that I would well recommend I think it would be quite trustworthy... (Interview 48)
I did consult Friends of the Earth to ask them if I should consider diesel and they told me that as far as second-hand cars went it wasn't really going to make much difference to the environment... (Interview 55)

I would normally go to Friends of the Earth or Greenpeace. I go to the website usually and if I couldn’t find what I was after I would ring them up... (Interview 55)

Government and governance

The only really visible element of this stakeholder group is at EU level. The EU Energy Label indicates the power consumption of an appliance (in kilowatt hours) under standard running conditions. The EU Energy Label rates appliances from A (most efficient) to G (least efficient) and provides additional appliance-performance information. The energy efficiency label must, by law, be shown on all fridges, freezers, fridge freezers, washer driers and dishwashers, and on light-bulb packaging.

I suppose with a washing machine you do look at the star rating don't you, you do look at the efficiency rating... (Interview 16)

Looking at a fridge for example I would first eliminate anything that was not an A rated... (Interview 74)

So I used the EU rating [for buying a washing machine]. Yes so I just went looking at all the panels stuck to the front and that was part of my basis for a decision. It was a big part of my basis for a decision... (Interview 32)

Of all the information about sustainability, the EU Energy Label was the most consistently and universally decoded. This rating scheme is unquestioned by even the most cynical of our respondents. It is widely noticed, and it is ‘understood’ asapolitical and unproblematic. It has made a significant impact on the purchase of technology-based products for a wide range of different kinds of green consumers. The success of this scheme can be likened to the levels of trust that people equate with the Fairtrade and Soil Association labels on foodstuffs. In contrast, schemes such as the EU Eco-label (which often appears within the EU Energy Label) go completely undecoded by consumers.

On the other hand, the success of the EU Energy Label, and the way in which it is decoded, could be argued to lead to an overly simplistic framing of energy use as an issue. Since most consumers seem to get no further in their decoding of the label than ‘A=good’, it could be seen as obscuring the complexity (and politics) of measuring energy use for appliances. So although consumers using the label to guide their choices will select appliances that consume less energy in their day-to-day use, they do not know how much energy the appliance uses, how much was used in its manufacture, or even which of these aspects is enshrined in law, it is not being read in terms of a manufacturer’s efforts to produce a better source that has been provided.

Further, it is interesting to reflect that if sustainability is enshrined in law, it is not being read by consumers in terms of a manufacturer’s efforts to produce a better source that has been provided.

Discussion

Shortcuts to making sense

What our research shows is that simplification is embedded in multilevel, interconnected logics of complexity. Consumers approach sustainability through a number of different lenses.

Many of the individuals in our interview sample rely on a third party that they consider trustworthy. In this case, the most common third party is the environmental magazines. Others approached well-known and familiar brands (such as Bosch) as well as well-known manufacturers. A third strategy has been to use a criterion. As discussed above, the very successful EU Energy Label is an example of this response was where consumers explicitly prioritized one aspect of the product over all others. Consumers employ a mixture of these strategies.

What is interesting here is the extent to which the simplicity of the problem of sustainability is simplified. The methods of (conceptual) simplification are themselves a product of complexity. The EU Energy Label is a prime example of this. It is a simple and well-understood tool that simplifies the ways in which consumers think about how they can use energy efficiently. The EU Energy Label, for example, provides a crude framing of the ‘problem’ of energy use: a) problematic; b) individuated; c) agentive; d) collective; e) individual household. The government has, in this sense, brokered a series of tools and policy to address issues. Here the tools are the terminology, the tools and
hem if I should consider cond-hand cars went it ice to the environment...

rh or Greenpeace. I go find what I was after I
er group is at EU level. The EU
up of an appliance (in kilowatt
E Energy Label rates appli-
tant) and provides additional
iciency label must, by law,
asher driers and dishwashers,
t look at the star rating
ating... (Interview 16)
first eliminate anything
ashing machine]. Yes so I
t to the front and that was
big part of my basis for a
EU Energy Label was the most
ing scheme is unquestioned by
widely noticed, and it is 'under-
have a significant impact on the
wide range of different kinds of
be likened to the levels of trust
Association labels on foodstuffs.
which often appears within the
consumers.
energy Label, and the way in which
early simplistic framing of energy
not further in their decoding of
curing the complexity (and poli-
o although consumers using the
es that consume less energy in
such energy the appliance uses,
how much was used in its manufacture or how much was used in its distribu-
tion, or even which of these aspects the A rating actually refers to.
Further, it is interesting to note that although the use of the EU Energy Label
is enshrined in law, it is not being decoded by consumers as an EU regulation.
Instead, it is being read in terms of CSR as either the result of the manufac-
turer's efforts to produce a better, more efficient product, or as an information
source that has been provided by the retailer.

Discussion and conclusions

Shortcuts to making sense of sustainability

What our research shows is that sustainable technologies are products that are
embedded in multilevel, inter-related, and sometimes paradoxical, social
complexities. Consumers appear to deal with this by tackling the decoding
through a number of different strategies.

Many of the individuals in our study sought to simplify the problem by
relying on a third party that they trust to unpick the issues on their behalf. In
this case, the most common third parties were the Ethical Consumer or Which?
magazines. Others approached the task of simplification by privileging particu-
lar brands (such as Bosch or Miele) or groups of brands (such as German
manufacturers). A third strategy was to identify the most important sustainabil-
ity issue for them personally and then make their choices based on a single
criterion. As discussed above, a common choice is energy efficiency, based on
the very successful EU Energy Label. A slightly more sophisticated version of
this response was where consumers did not confine their searches to one issue
but explicitly prioritized one aspect of sustainability. We also found that some
consumers employ a mixture of these approaches.

What is interesting here is that, on the whole, the consumer reaction to the
complexity of the problem of sustainable consumption is to try one or more
methods of (conceptual) simplification. This is a natural response, but a cultural
analysis highlights the fact that these solutions are themselves framed by govern-
ance activities. Some of the examples discussed above show consumers trying
to extend the familiar recipes for short cuts developed by the grey consumer
(e.g. brand) to a more complex, important and dynamic problem. Of course
brand (as a concept) can be understood to be a culturally constructed designa-
tor in itself. What is missing here is an appreciation of the relationship between
the ways in which governance structures and relationships have influenced the
framing of the 'problems' and 'issues' that the consumers see in the first place.
The EU Energy Label, for example, is a product of inter-related and media-
brokered governance activities which have, over time, identified domestic
energy use as: a) problematic; b) addressable; c) the responsibility of the indi-
vidual household. The governance structures are doing more than generating
policy to address issues. Here we can see how they are influencing the issues,
the terminology, the tools and approaches as well as the possibilities of how,
why and by whom they might be solved. Our research shows that the consumers who grapple with this level of governance influence are few and far between.

**Contrast with FMCG behaviour**

By far the most common response to the difficulty of making sense of sustainability, even amongst consumers who were actively engaging with the problems of sustainability in other product groups, such as FMCG, was to apply different criteria to the purchase of sustainable technologies. These findings confirm Peattie’s (1999) conception of green purchase processes as inconsistent and context specific. Our research certainly suggests that consumers’ approaches to purchase processes vary significantly according to product type. This kind of behaviour has also been observed in studies of tourism consumption, where green consumers do not necessarily become green travellers (Watkins, 1994; Wearing et al, 2002). As indicated above, sometimes a different approach is taken knowingly by green consumers, but it was equally likely that consumers subconsciously chose different purchase criteria.

This curious situation can in part be explained by the lack of information that can be readily decoded that is perceived to be available to consumers. The decoding process has broken down because of two competing information problems. The first decoding problem is that in fact there is an endless amount of information about a huge range of competing or even conflicting sustainability issues. However, the second problem is that consumers do not know how to begin to decode this information for technology-based products. In other words, even if consumers do know how and where to obtain information on all the aspects of sustainability that they feel are pertinent, they do not know how to go about evaluating this information.

The success of the EU Energy Label is particularly interesting. This is information which is presented as ‘fact’ in a ‘standardized’ format and reduced to a single scale that is displayed on every product. This information has been decoded in very similar ways by all our interviewees. Further, it remains unquestioned by the most cynical green consumers. As such, it has been decoded in a way that is similar to the decoding of the Fairtrade or the Soil Association symbols for FMCG. More research is needed to understand whether the success of the EU Energy Label is due to its simplicity, its authoritative or just the fact that it is ubiquitous for white goods.

**Implications for governance**

On the whole, we have found that the governance activities of public and private sector institutions are not really having an impact on the purchase of sustainable technologies. Representations of civil society groups such as the Ethical Consumer magazine seem to be better trusted by the public than either of these two groups. However, the same consumers who regularly seek out information about working conditions for the production of the food and clothing products that they buy are apt to ignore the production processes, distribution networks and retail which other goods and services, such as those of the EU Energy Label, both to tackle the complex problems of governance. This points to the relatively the lack of decoding by individuals.

Whilst some positive messages are being conveyed, the process, much of which appears to be non-political. Even less responsible is how often their technology purchases are the result of national government or retailer’s marketing.

What we can see, however, is an effect on how sustainability is being considered, problems that are being privatised in relation to energy consumption. For example, the energy label is preferred, and for this we find interesting as this is a measure of the running costs rather than increases in price. However, we also found discussion related to sustainability, although this was often related to sustainable technologies. On the whole, the production waste, distribution is ignored. It seems that the issues that are of concern are the responsibility: they can be resolved through technological solutions.

---

rarch shows that the consumers are few and far between.

ly of making sense of sustainably engaging with the problems of FMCG, was to apply different logies. These findings confirm processes as inconsistent and that consumers’ approaches to product type. This kind of tourism consumption, where even travellers (Watkins, 1994; sometimes a different approach is equally likely that consumers

ed by the lack of information available to consumers. The of two competing information facts there is an endless amount of even conflicting sustainability consumers do not know how to based products. In other words, how obtain information on all the they do not know how to

larly interesting. This is infor-
dized’ format and reduced to a act. This information has been vees. Further, it remains unques-
s. As such, it has been decoded fairtrade or the Soil Association understand whether the success its authoritative ness or just the

distribution networks and retailers of their white good purchases. The ways in which other goods and services are ‘read’ by green consumers, and the success of the EU Energy Label, both suggest that consumers are willing and able to tackle the complex problems of sustainability as part of their purchasing decisions. This points to the relative invisibility of governance issues uncovered here being the result of a lack of encoding by the formal institutions rather than a lack of decoding by individuals.

Whilst some positive messages about CSR are being decoded during the purchase process, much of what we have found is about bad practices, actual or political. Even less represented in the discourses of green consumers about their technology purchases are the governance activities of local authorities, national government or retailers.

What we can see, however, is that governance structures are certainly having an effect on how sustainability is being framed by members of the public. The problems that are being privileged by many of our respondents are concerned with energy consumption. For white goods, this means an A rating on the EU Energy Label is preferred, and for cars this translates into fuel efficiency. This is interesting as this is a measure that some equates to reduced financial running costs rather than increased environmental benefits per se. In our interviews we also found discourse about the ethical and social elements of sustainability, although this was mostly in the context of FMCGs rather than sustainable technologies. On the other hand, we found hardly any mention of production waste, distribution resources or disposal practices for any product type. It seems that the issues that the public are attracted to for sustainable technologies are the ones that are a matter of individual (rather than corporate) responsibility: they can be reduced to an ‘objective’ measure and addressed through technological solutions.

References

People Centre for Consumer and Low and Zero Carbon Buildings and

Robin Roy, Sustainable Living

In order to address the problem of greenhouse gas emissions, reducing the UK's carbon emissions by 60% by 2050 (Royal Commission on Environmental Pollution, 2004), the government has committed at least to satisfy its energy needs by 2020. This requires a significant reduction in greenhouse gas emissions.

The development and rapid take-up of energy-efficient consumer products and systems, coupled with the existing housing stock, including new and retrofitted homes, are key elements of the government's strategy. New homes account for 30 per cent of the total UK carbon dioxide emissions, and this figure is expected to increase to 80 per cent by 2020 (DTI, 2004).

Many energy-efficient, low-carbon products and systems are available.