Comparing Sustainable Consumption Patterns Across Product Sectors

Short title: Comparing Sustainable Consumption Patterns

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Abstract

In this paper, we present findings from two qualitative studies where we explored sustainable consumption practices through examining consumers' information search and decision-making processes for recent purchases of five categories of goods/services: fmcgs (such as foodstuffs and household products), white goods (such as fridges and washing machines), small electrical products (such as TVs and computers), green energy tariffs (such as electricity from renewable sources), and tourism (such as flights or hotel rooms). This research has provided us with a set of rich data which explores the nature and extent of sustainable consumption practices across different product sectors. A comparative analysis has allowed us to draw out patterns of consumer behaviour for different product and service types. Our findings suggest that even the same green consumer will not use the same information sources or decision-making criteria, consider the same options, or focus on the same industry actors, for products in different sectors. However we have identified some degree of consistency in purchases within sectors. We present these sector-specific patterns of consumer behaviour and highlight differences in the criteria utilised and the research norms in each sector.

Keywords: consumer behaviour; sustainable consumption; purchase decisions; green consumers; cross-sector comparison

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Introduction

Underlying much of the research about green or ethical consumers[1] is an assumption that they are "rational actors, who act systematically according to their values and base their choices on expert environmental information" (Salmela & Varho, 2006). If this were true, then a consumer who researches purchases thoroughly and pays a premium for a more ethical or environmental product might be expected to use the same approach and make a similar decision for a product or service from a different sector. However, this has been questioned by a number of commentators who have argued that there are different kinds of green or ethical consumers (The Roper Organization, 1990; Dermody, 1999; McDonald *et al.*, 2006a; McDonald *et al.,* 2006b) and that green consumption is neither consistent nor coherent (Uusitalo, 1990; Peattie, 1999). This paper builds on other work undertaken to investigate these issues in single product sectors. In order to address the relative lack of comparative work in this field, this study focuses on the question of whether or not green or ethical consumption is similar for different types of products and services (Kalafatis *et al.,* 1999).

[1] 'green or ethical consumer' is a term which we use to denote a consumer who has concerns related to sustainability in its widest sense. We use this combined term in order to signal that we hope to address both literatures (such as Marketing) that use the term 'green consumer' to mean consumers with environmental and/or ethical concerns, and others (such as Sustainable Development) that use the term 'ethical consumer' in the same way.

In order to do this, we have compared the purchasing research and decision making processes of the same consumers in up to five different sectors:

- **white goods** (such as fridges and washing machines);
- **small electrical products** (such as TVs and computers);
- **fast moving consumer goods** (fmcgs) (such as food and household products);
- **green energy tariffs** (such as electricity from renewable sources);
- **tourism products and services** (in this study, we will confine ourselves to the discussion of flights in order to provide clearer parameters for comparison).

These sectors were selected because they include both consumable and durable products and services which are different sizes, are purchased at different intervals, in markets which have higher and lower green consumer behaviour and have had different kinds of policy interventions. They are intended to represent a wide range of consumption situations, rather than a comprehensive list of sectors which may support different consumption practices.

We begin with a brief review of literature summarising the key research areas and concerns pertaining to green or ethical consumption in each of these sectors. This leads to a discussion of some of the assumptions underpinning these studies and what they mean for the study of sustainable consumption. We will then present the methods used to collect data on the purchasing processes in these sectors. This will be followed by a discussion of our results and a comparison of the consumption practices of green and ethical consumers across the sectors studied. Finally we will consider the implications of

these results for public and private sector organisations that aim to promote sustainable consumption.

FMCGS

The study of the consumption of foodstuffs and household products by green and ethical consumers is the subject of the largest and most established literature considered here. Consumption practices associated with these products have given rise to a number of social science debates, including the study of sustainable consumption (Jackson, 2006), ethical consumers (Harrison, Newholm & Shaw, 2005) and green marketing (Peattie, 1992; Ottman, 1993). Issues in this field include attempts to identify green or ethical consumers through a wide range of demographic, socioeconomic and psychographic characteristics (e.g. Diamantopoulos *et al.*, 2003), or predict sustainable consumption patterns from consumers' declared intentions to undertake sustainable behaviours (e.g. Batley *et al.*, 2001). Findings from this research have been inconclusive or sometimes contradictory (Roberts, 1996; Wagner, 1997; Straughan & Roberts, 1999) and have prompted work on different kinds of green or ethical consumer (McDonald *et al.*, 2006a; McDonald *et al.* 2006b) and new ways of conceptualising green or ethical consumption as a problem (Peattie, 1999).

Travel & Tourism

We can see parallel concerns and approaches developing in the tourism literature. For the past 15 years, sustainable tourism, green tourism and eco-tourism have been some of the most researched concepts within the tourism literature (for example, Bramwell &

Lane, 1993; Buckley, 2004). This academic interest in the green tourist is a reflection of the boom in green tourism products and services over the same period. However, even in an industry which has seen much success in the promotion of green or ethical offerings, there is still as much debate over the concept of 'green tourists', who they are, what they want, and how they should be approached by marketers, as there is in the general marketing literature over the 'green consumer' (see for example Eagles & Cascagnette, 1995; Orams, 1997; Wight, 2001; Higham *et al.*, 2001). Often in tourism research it is assumed that a 'green' or 'eco' tourist exists, with very little empirical understanding or insight into the values and attitudes of this group and how these translate into behaviour.

Green Energy Tariffs

Electricity suppliers who offer green tariffs undertake to produce the equivalent of a customer's annual electricity usage from renewable sources. Since these are relatively new products, and are only offered in a few countries, there is a less established literature pertaining to consumption patterns for these products. However, there is a number of studies of consumers' 'willingness to pay' for green electricity in the United States (Farhar & Houston, 1996; Roe *et al.*, 2001; Zarnikau, 2003), Canada (Rowlands, Scott & Parker, 2003) and the United Kingdom (PRASEG, 1996; Colbourne *et al*.,1999; Batley *et al.*, 2001). There is also a literature on green power marketing which is concerned with how best to promote greener electricity products to customers (Wiser, 1998). Key concerns in the literature on green energy consumers include whether or not renewable energy targets can or will be met through the voluntary actions of consumers

alone (Batley, 2001; Markard & Truffer, 2006); the extent to which consumers will act as 'free riders', benefiting from other consumers' purchase of greener energy without paying themselves (Wiser, 1998); whether or not the invisibility of electricity product purchases will hamper take up by consumers seeking social approval for their green behaviours (Arkesteijn & Oerlemans, 2005) and other barriers to the purchase of green energy (Salmela & Varho, 2006).

Small Electrical Appliances

There are no studies which centre specifically on the purchase of small electrical goods by green or ethical consumers. The debate in this area has centred on the disposal of appliances, and the effectiveness of policy, due to the European Union (EU) directive on Waste Electrical and Electronic Equipment (WEEE) (Hischier *et al.*, 2005; Nnonrom & Osibanjo, 2008). The lack of study, policy and manufacturer initiative surrounding the greening of this product group is especially worrying given that it is the fastest growing waste stream in the EU (Darby & Obara, 2005) and that the household energy consumption for consumer electronics are predicted to rise to rival wet appliances and cold appliances together by 2010 (Boardman, 2004).

White Goods

Since the 'use' phase of white goods' produce lifecycle is the most energy intensive (Rubik & Frankl, 2005), research in this product sector has tended to focus on the energy consumption of larger household appliances. One strand of literature focuses on the introduction of the EU Energy label in 1994 (Winward, Schiellerup & Boardman,

1998). The EU Energy label rates every appliance from A to G, where A is the most energy efficient machine and G is the lowest. Every appliance has this information displayed at point of purchase so that consumers can compare the energy consumption of machines directly. This has been tackled by both the policy literature, as an example of product policy (Boardman, 2004), and marketing literatures as an example of eco-labelling (e.g. Rubik & Frankl, 2005). There is also some literature in the field of ergonomics about the ecological use of appliances (e.g. Wiese, Sauer & Rüttinger, 2004). The focus on energy efficiency for this product category is hardly surprising; given that refrigeration, home laundry, cooking and dishwashing appliances account for around 38% of residential energy consumption within the EU (Waide *et al.*, 1997).

An Overview

Table 1: Key issues within literatures pertaining to the sectors studied

Table 1 identifies some key issues in each sector. Although this characterisation is a gross oversimplification of these complex and multitudinous literatures, an in-depth consideration of these debates is outside the scope of this paper. Table 1 therefore serves to illustrate a number of salient issues. Firstly these different literatures are concerned with different parts of the product lifecycle. For example, whilst commentators who are concerned with white goods might be engaged in debates about how the EU Energy Label affects purchases of these products, scholars studying products in the small electrical appliance sector are much more concerned with product disposal. Secondly, this short review underlines the fact that these literatures are

distinct in themselves. There is little cross referencing between studies in different sectors. Perhaps the best linked debates are those in mainstream green marketing and green tourism, although there is a tendency for insights to flow from the marketing literature to the tourism literature, and not the other way round.

In addition, our review found that whilst there are a number of studies which examine the purchasing of specific products and services by green or ethical consumers, comparisons between categories are much rarer. A few exceptions have focused on retailers (Davies & Flemmer, 1995), manufacturers (Wong, Turner & Stoneman, 1996), or a specific aspect of purchase, such as ecolabels (Rubik & Frankl, 2005) rather than treating the research and decision-making process in a holistic way.

Overall, this shows a treatment of the consumption of products and/or services within different sectors as dissimilar and unconnected. In other words, these literatures are not strongly cumulative or inter-related: each sector is treated as both empirically separate and theoretically distinct. Consumption has been studied in a fragmented way which does not allow the researcher to understand the portfolio of choices over a number of products and across different time frames or contextualise these within wider lifestyle contexts.

These issues raise important problems for the study of sustainable consumption. Schaefer & Crane (2005) offer two different readings of the consumption process. The first is a positivist view that consumers are simply economically rational beings engaged

in consumption in order to meet their needs. Within this paradigm, the consumer is understood to be translating their needs and core values into a series of duplicate or equivalent decisions in their (non) purchase of green products and services. This view can be seen to underpin many of the studies included in the review presented above. If this view was an accurate portrayal of consumption practices, then comparative work, such as that featured in this study, would offer little insight because consumers who felt strongly about an issue such as poor working conditions would simply boycott products or services in all sectors which they felt represented an infringement of these principles, and we would expect to see purchase processes replicated across sectors.

An alternative view, underpinned by an interpretive paradigm (Schaefer & Crane, 2005) sees consumers as cultural and social agents who are engaged in consumption patterns that communicate their personal identity, status and identification with groups and values to other consumers (Dolan, 2002). Coining the term ‘hyperconsumption’ Kilbourne et al (1997) suggest that in doing this cultural work, the individual may be concerned with the consumption of the image of a product or service rather than the product or service itself. If this view of consumption has validity then the comparative work offered here will show that individuals may exhibit consumption patterns that do not necessarily make sense when compared across sectors. This is because they are informed as much by the industrial, political and social structures of the sector that produced them as they are by the values, practices and aspirations of the individual. In other words, consumption is not an act determined by the consumer in isolation.

In an approach that can accommodate this interpretive view of consumption, Peattie (1999) suggested that instead of studying an individual's consumption as something which forms a coherent whole, their consumption should be viewed as a stream of individual purchases which might not be consistent between purchase types or even for the same purchase types over time. By incorporating Schaefer and Crane's (2005) interpretive view of consumption with Peattie's (1999) attention to the individual purchase, we can conceptualise green or ethical consumption as a process by which individuals make sense of themselves and their relationships with others, and also act within the constraints of the institutions and the norms of society of which they are a part. In this paper we therefore seek to compare and contrast the (non)purchase processes of the same consumers for more than one of these products and services. This research design will increase our understanding of *whether values are in fact translated into equivalent behaviours in different sectors*. This in turn will inform debates about both the consistency (or otherwise) of the green or ethical consumer and the role of industry infrastructure in mediating green or ethical consumption practices.

Methods

The work presented in this paper represents the findings of two qualitative studies of sustainable consumption. The first study was focused on how green or ethical consumers purchased technology-based products, and compared this with their consumption processes for fast-moving consumer goods (fmcgs). The second study replicated the interview protocol developed in the first, but focused instead on how green or ethical consumers purchased tourism products and services, again comparing

these with their fmcg purchasing behaviour. The data that will be discussed in the following sections are drawn from 100 semi-structured interviews, carried out across the UK with green consumers. Initially, interviewees were recruited through posters, leaflets and adverts in a wide range of green and ethical organisations in the UK. These individuals were self selected in that they identified themselves as green or ethical consumers by answering our adverts and were not assessed as to the extent or type of their green or ethical commitments prior to interview. The sample was developed through snowballing from our initial contacts and guided by theoretical sampling practices (Gummesson, 1991). The final sample included a wide representation of genders, age ranges, life stages and occupations as well as a diverse mixture of green and/or ethical focuses.

Each interview lasted approximately one hour and centred on each interviewee telling the story of their research and purchase processes in their own words, prompted by the interviewer as necessary. Interviewees selected the products or services that they wished to discuss, with the proviso that they talked about **recent** purchases that they had been directly involved in. Every interviewee produced very detailed accounts of actual (non)purchase processes for more than one of the product and service types identified above. Where respondents did not naturally offer them as part of their story, they were prompted to describe a variety of aspects of each purchase, including where purchases were made, whether any information search was undertaken prior to the purchases, which criteria were used in evaluating alternative products, how these criteria were prioritised, whether a ‘do without’ option was considered, which information

sources were favoured and how purchases were related to lifestyle, habits and other members of the household. However the conversational nature of the protocol meant that many respondents covered a range of these issues unprompted. Overall, 81 consumers detailed their (non)purchases of technology-based products (white goods, small electricals, green tariffs), 19 discussed tourism products and services, and all 100 related their experiences of shopping for fmcgs. Interviews were recorded, transcribed and then analysed using inductive analysis techniques. Analyses were undertaken both by purchase and by individual in order to learn more about their approach to particular (non)purchases as well as compare the processes associated with one product or service with the processes utilised in other sectors. The patterns which were surfaced from this analysis are discussed in the following section.

Results & discussion

In this section we will compare the findings of our study for each sector. Rather than characterising consumption approaches within each sector, as much of the literature discussed above has done, we will use comparisons across product sectors to draw out patterns of consumption practice. In the following sections we discuss four issues that showed the most substantial variation across sectors: which sustainability criteria are used in the decision-making processes; which parts of the supply chain are scrutinised by green or ethical consumers; what kinds of green or ethical alternatives could be considered; and which kinds of information were used to support decision-making. In line with our qualitative approach and inductive analysis, these issues are not drawn from the literatures discussed above, but are raised here because they were themes

within our data that were significant to the green consumers that we interviewed. However once we have presented them, we will discuss them in the context of the literature(s) in the following section.

Sustainability Criteria

Green or ethical consumers take account of a wide range of criteria in their purchases of food, cleaning products and toiletries. Common examples are fair trade and organic food, environmentally friendly cleaning products and toiletries which are not tested on animals. Some green or ethical consumers also favour local, independent shops. Our data show that they take these criteria very seriously. They are often willing to compromise on price, brand, convenience, and in some cases product performance in order to ensure that their purchases are achieved in line with their principles.

Both the environmental performance of the product and the ethical track record of the producer have become important criteria in the white goods sector. That is not to say that these are treated equally. On the contrary, perhaps one of the defining features of this sector is the dominance of a single criterion: energy efficiency. Many consumers expressed their ideals in terms of an A rated appliance, but in fact would compromise on this in favour of more mundane criteria. A common pattern of purchase in this sector was for green consumers to select the highest energy rating that they could within their primary criteria of brand, availability and price. The greenest consumers in our study may undertake some research into the ethical status of different white goods manufacturers. Again, although purchases from more ethical manufacturers are often

expressed as ideals, this criterion may end up being compromised in favour of standard criteria such as price and availability.

For small electrical appliances, brand is by far the most important decision–making criterion. Sustainability criteria are rarely used or even discussed in relation to these purchases, even by very green consumers.

For green energy tariffs, environmental criteria are paramount. Issues such as price and brand are secondary.

In the tourism sector, we found that, like the white goods sector, sustainability criteria are often discussed as part of the purchase priorities, but that ultimately, these are often compromised in favour of other criteria. For example, many respondents declared that it was against their principles to fly, particularly for journeys within the UK or Europe, due to the high carbon emissions associated with this mode of travel. However for almost all of them, these principles were not consistently prioritised in their actual flight purchases and many of them did make use of domestic flights. For most of the green consumers we interviewed, these environmental criteria became secondary to more prosaic criteria such as journey time, price and convenience. It is interesting to note that although green criteria were at least discussed for short-haul air travel, they were often absent from descriptions of long haul flight purchases.

Table 2: Uses of sustainability criteria by sector

Overall, our data show that sustainability criteria are not used consistently across product sectors. For example, the same consumer may prioritise environmental criteria in their purchase of fmcgs, consider them when buying white goods or flights, but ultimately sacrifice them in favour of availability or convenience, and not take them into account at all during the purchase of small electrical products. Equally, consumers focus on different green or ethical criteria in different product sectors. Whilst this is inevitable to an extent as some criteria do not apply in all sectors, it also holds where equivalent criteria could have been selected. For example, energy efficiency is very important in the purchase of white goods, but not in the purchase of small electrical appliances. See Table 2 for a summary of the sustainability criteria used in each sector. These have been broken down into three groups which were evident from our data: environmental criteria (such as energy efficiency) ethical criteria (such as fair trade) and community criteria (such as supporting local shops). This table also notes how likely consumers are to compromise on their sustainability criteria in each of the product sectors studied. Our data show that environmental criteria are by far the most commonly utilised by our green consumers.

Supply Chain Focus

In the fmcg sector, consumers tend to focus on issues rather than specific products, brands or manufacturers (with the notable exception of Nestlé). For example, a typical green or ethical consumer might discuss the purchase of fair trade coffee generally rather than a specific brand such as Café Direct, or eco-friendly cleaning products in

general rather than a specific manufacturer such as Ecover. When purchasing fmcgs, consumers are interested in the green and ethical status of the retailers as well as those of the actual products. Many of our interviewees voiced a concern over the practices of the mainstream supermarkets and discussed strategies that they employed to minimise use of them within their weekly shopping routines, or in some cases to avoid them altogether. Some consumers opted out of the use of mainstream outlets, preferring small local or independent shops, specialist retailers, retailers such as Co-op who are perceived as having higher ethical credentials, or whole food co-ops. However for many consumers this issue remained unresolved and our data show the emergence of an interesting tension between the convenience of supermarkets in general, and their provision of growing numbers of organic, fair trade, recycled and eco-friendly home and personal care products in particular, with a general unease about the nature of supermarket supply chains and operating practices. This tension has led a number of our respondents to shop in mainstream outlets (either occasionally or routinely), even when in principle they are against them.

Table 3: A comparison of purchase research focus by sector

Some green or ethical consumers do research into the ethics of different white goods manufacturers, however all consumers are concerned with the energy efficiency of the product itself. Our data show that even very green consumers tend to favour the white goods 'supermarkets' over other outlet types (Winward, Schiellerup & Boardman, 1998). However none of the consumers that we interviewed considered the environmental or ethical status of the retailers they use for their white goods. In our study we can cite

many examples of consumers who avoid supermarkets at all costs but make no assessment of the retailers that they purchase their white goods from, and so we can conclude that their values are not expressed in the same ways in different sectors.

For both green tariffs and tourism the focus of the green or ethical consumer is exclusively directed at the specific product, and the sustainability of both manufacturer and outlet are not considered. In fact for green tourism products and services, many consumers cut out retailers altogether and deal directly with service providers through their websites.

In summary, we have found that consumers focus their environmental or ethical concerns on different aspects of the product or service and scrutinise different parts of the supply chain. For example, for fmcgs, green or ethical consumers may investigate retailer ethics, but the same consumers are unlikely to consider these same issues in their purchases of white goods or travel and tourism products. See Table 3 for a summary of which parts of the supply chain are the focus of consumer research in each sector.

Green Alternatives

The fmcg sector has the longest established green alternatives. This means that many greener or more ethical products are already available through mainstream outlets, such as supermarkets, or have developed their own alternative supply chains such as

whole food co-ops or health food shops. If their sustainability criteria cannot be realised, many green or ethical consumers are inclined to do without these products.

Table 4: A comparison of green alternatives by sector

Many of the products in the white goods sector are available to buy second hand. This offers the green or ethical consumer a useful alternative source of supply (also linked to waste reduction and the support of smaller, local outlets) which is not available in all sectors. This is not always seen as a straightforward solution however, as there may be no information about the energy efficiency of a second hand appliance, and the likelihood is that the older it is, the less likely it is to have good performance in this respect. Secondly, many green or ethical consumers feel that there are no real 'alternative' products in this sector in the way that there are fair trade or organic choices for foodstuffs. They feel that most appliances are made by large multinational organisations out of similarly unsustainable materials by a poorly paid workforce and shipped half way round the world. In other words, there is not much to choose between the huge range of appliances on offer in terms of their green or ethical standards of manufacture and distribution.

The main strategies used by very green consumers in the small electrical appliances sector are to do without or to buy second hand, or from small, local retailers. Interestingly, doing without is considered for this category of goods in a way that it is not in the white goods sector.

Green tariffs have become common in the UK, and are offered by both the large, mainstream producers and smaller companies who specialise in the production of green electricity.

Similarly to the white goods sector, the ‘do without’ option of not travelling to far flung destinations is not considered by green consumers in the tourism sector.

Table 4 summarises the alternatives which exist and are considered in each sector. There is often a striking difference between how the same consumers make purchases of small electrical products and white goods or fmcgs. Obviously not all alternatives exist in all sectors; however a ‘do without’ option is theoretically applicable to all these purchase types. It is interesting to note that doing without a fridge or washing machine is not now seen as a viable option even for the greenest consumers, demonstrating a change in socially constructed norms from our parents’ or grandparents’ generation. This is a good example of Dolan’s (2002: 172) assertion that, “much of modern consumption appears symbolic and social” and is driven by norms rather than needs. This analysis also raises the question of how important the existence of mainstream outlets is to consumers. Further research would be required to ascertain whether the fact that green or ethical products are available through the same channels as standard ones is important because they seem more socially acceptable, or because they represent less behaviour change than specialist outlets.

Information sources

This study also uncovered very different patterns of research and use of information sources for different purchase types (see Table 5).

In the fmcg sector there is a proliferation of consumer information available, although this can sometimes have the effect of complexifying rather than simplifying the purchase process for fmcgs. Multiple information sources and the wide range of criteria that they address can leave some consumers feeling overwhelmed or less sure of which issues to tackle through their consumption and how best to go about it. Many consumers rely solely on checking labelling on product packaging during their shopping to inform their purchases. Issue-related labels such as the Soil Association mark and the Fair Trade logo are well used and trusted sources of information for green and ethical consumers. These are often supplemented by a wider general knowledge of green or ethical issues, rather than specific research into products or manufacturers, in contrast to some of the other sectors.

Table 5: A comparison of the information sources used by sector

Our research suggests that the EU Energy label has had a significant impact on the purchase of white goods in the UK. The labels are nationally known (Sammer & Wüstenhagen, 2006), widely used (Saidur *et al.*, 2005), treated as objective, consulted at point of purchase and implicitly trusted by all kinds of green consumers. In fact none of the consumers in our study questioned this label or had a very sophisticated understanding of what it actually represented. The consumers who do research on the ethical track records of the manufacturers make use of specialist media, particularly The Ethical Consumer magazine.

The few consumers who do seek to incorporate green or ethical criteria into their purchase processes in the small electrical appliances sector use magazines such as Which? or The Ethical Consumer. However, environmental information is much less readily available for this class of product.

Our data show hardly any instances of active information seeking around green energy tariffs. Most of the consumers switching to greener energy tariffs have been prompted to do so by direct mail from one of the green tariff providers. These companies may be their current supplier adding a green tariff to their existing product line, or a different supplier, but either way, very few consumers seem to carry out any form of comparative research into the different products available, simply signing up for the one they receive information about. As such, brands and products seem to be regarded by consumers as equivalent. This finding contrasts with other studies of green tariff purchases where consumers have cited a lack of marketing and information as one reason for not changing to green tariffs (Brand, 1997; Salmela & Varho, 2006).

Green consumers make much more active use of the internet for their flight purchases than for the other product types. However, when they are selecting a destination in the first place, and once they arrive, there is a tendency to make use of travel guidebooks. The Rough Guide and Lonely Planet are trusted sources of information for green consumers. Further, although green consumers make extensive use of personal networks in their information searches in both sectors, this tends to be in the form of

family and friends for tourism purchases, but is more likely to be in terms of specialist networks of other green consumers for the purchase of white goods. This reliance on friends and family as a significant reference group in tourism purchase decisions is typical within this sector (see for example Nichols & Snepenger, 1988).

Overall, the success of labelling schemes, such as the EU Energy Label in the white goods sector and the Fair Trade logo in fmcgs, and the reliance on 'top ten' lists in Which? and The Ethical Consumer suggest that consumers are looking to information sources to provide shortcuts. Rather than being presented with a detailed analysis of all the possible green or ethical criteria, the nature of these favoured information sources suggests that they want simple, single dimensional advice from a trusted, independent source. In the absence of this sort of information, the behaviour we have described in the small electrical products sector suggests that they will ignore green or ethical criteria altogether, or simplify the process into a buy/don't buy decision. Overall, the simpler the information supplied (providing it is from a trusted source) the more likely it is to be incorporated into green consumer decision making (Oates *et al.*, 2008). However, that is not to say that just because an eco-labelling scheme exists and that it is simple to understand that it will be well used and trusted by consumers. For example, within the tourism sector, a number of environmental certification schemes exist but these have not been mentioned by the respondents in our study and so are not considered here.

Conclusions

These results are qualitative and exploratory in nature. Nevertheless, they do add weight to previous work which has suggested that there is no such thing as a green consumer (Peattie, 1999) or even a green purchase (McDonald *et al.*, 2006b) and suggests a further reason that previous approaches to identifying green consumers through demographics and/or psychographics have been less successful than hoped. Our data highlight the inconsistencies in individual purchasing behaviours whereby (any) sustainability criteria are taken into account as part of purchase processes and how they affect the outcomes of these processes. Thus our study lends further empirical support to Peattie's (1999) conceptualisation of a stream of inconsistent and unrelated purchases.

In terms of Schaefer & Crane's (2005) views of sustainable consumption, we have found ample evidence of an interpretive view of consumption at work in our data. For example, green energy tariffs tend to be purchased by green consumers regardless of price. However, we also note a tension between the rational, economic actor that they present as part of their positivistic view of consumption and the socially embedded, culturally driven consumer that they outline as part of their interpretive view of consumption. For example, a number of interviewees expressed strong views against supermarkets, but used them for their fmcg shopping on a regular basis. In other words, consumption is not only mediated through values, norms and aspirations, but is also governed, to some extent, by the more prosaic factors such as money and time spent in pursuit of a purchase. Although these views of consumption can be segregated theoretically, it may be that the economic, rational actor is part of the socialisation of the

consumer and informs their purchase processes as surely as their personal aspirations. These data make an interesting empirical contribution to the debate on how sustainable consumption can be understood.

Overall, we have found that taking the approach of comparing the behaviour of the same green consumers across different product and service sectors has given us a range of valuable insights into sustainable consumption behaviours that would not have been surfaced through sector-specific research. This analysis has highlighted important tensions in the behaviour of individual consumers, whose green or ethical values are not translated into concrete purchases in the same ways in different product and service sectors. Sustainable consumption practices in some sectors are well developed and actively pursued. In other sectors, this is not the case. Interestingly, this activity is mirrored to a large extent by academic interest in sector-specific issues. This leads us to raise questions about the role of industry infrastructures in facilitating or creating barriers to green consumption, information to support this consumption and academic debate surrounding these practices. In other words, sustainable consumption is mediated by a range of factors outside the control of the individual consumer, and to some extent, the individual company.

This has some important practical implications for marketers. First it suggests that reliance on traditional marketing techniques which depend on using information about one purchase to predict another (similar or related) purchase will not work for green consumers. However, the data from the two studies discussed here do suggest that

although patterns are hard to detect across consumers, there are patterns at work across purchases within particular product sectors. On a more positive note, our study suggests that information has an important role to play in green or ethical consumption practices. Further, we have identified clear examples of sectors in which the consumer can be usefully understood through an interpretive lens and suggest that social marketing practices may have a useful role to play in reinforcing aspirational associations with more sustainable product and services.

However the importance of industry level infrastructure suggested here may also point to the necessity for policy rather than marketing interventions in order to develop sustainable consumption. Our data further highlight the effect of different policy approaches: We can see that product policy in the form of the EU Energy label has been successful in raising awareness for white goods. On the other hand, end of pipe solutions, as exemplified by the EU Waste Electronic and Electrical Equipment directive, have not had a significant impact on the decision-making processes of individual green or ethical consumers. More research is needed to unpack the success of industry-level labelling schemes such as Fair Trade logo and the EU Energy Label in order to ascertain whether it is their independent source, their ubiquitous nature, their simplicity or their availability at point of purchase that contributes to their success. Further research will also be needed in order to understand the effects that industry norms, such as policy interventions and how much sustainability information is available, have on individual consumers and their purchases. As a starting point, we would advocate

the comparative study of a wider range of sectors. As shown by Kilbourne *et al.* (2002) the differences between countries should also be considered in this way.

Comparative qualitative research is not however without its drawbacks. Analysing data from many sectors raises more questions about the role of industry infrastructure, information sources and other norms than a qualitative study of this nature can answer. Comparative analysis also presents very real practical problems in the reporting of research where the detailed analysis of each sector must inevitably be sacrificed for the helicopter view that comparison requires, creating unwieldy sample sizes, and going against the norms for a qualitative analysis.

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Sector	Key issues in literature	Major lifecycle stage focus
FMCGs	Green marketing Attempts to identify the “green consumer”	Purchase
White Goods	Eco-labelling Energy consumption	Purchase & Use
Small Electrical Appliances	Disposal Effectiveness of disposal policy	Disposal
Green Energy Tariffs	Willingness to pay Green power marketing	Purchase
Travel & Tourism	Attempts to identify the “green tourist”	Purchase

Table 1: Key issues within literatures pertaining to the sectors studied

Sector	Environmental Criteria	Ethical Criteria	Community Criteria	Likelihood of compromise on these criteria
FMCGs	yes	yes	some	low
White Goods	yes	some		high
Small Electrical Appliances				n/a
Green Energy Tariffs	yes			low
Travel & Tourism	yes			high

Table 2: Uses of sustainability criteria by sector

Sector	Focus of sustainability research			
	Product	Manufacturer/Brand	Retailer	Issue
FMCGs			✓	✓
White Goods	✓	✓		
Small Electrical Appliances				
Green Energy Tariffs	✓			
Travel & Tourism	✓			

Table 3: A comparison of purchase research focus by sector

Sector	Existence of green alternatives	Availability of green alternatives	'Do without' considered	Second hand considered?
FMCGs	yes	Mainstream outlets and specialist retailers	yes	n/a
White Goods	yes	Mainstream outlets	no	low
Small Electrical Appliances	none	none	yes	medium
Green Energy Tariffs	yes	Mainstream outlets and specialist retailers	n/a	n/a
Travel & Tourism	yes	Specialist retailers and operators	Short haul: yes Long haul: no	n/a

Table 4: A comparison of green alternatives by sector

Sector	Information sources for sustainability criteria
FMCGs	Product labels Point of purchase Sustainable consumer networks
White Goods	EU Energy label Point of purchase (The Ethical Consumer)
Small Electrical Appliances	Not applicable
Green Energy Tariffs	Direct mail
Travel & Tourism	Travel guides to select, internet to research & purchase Personal networks

Table 5: A comparison of the information sources used by sector

Table 1: Key issues within literatures pertaining to the sectors studied

Table 2: Uses of sustainability criteria by sector

Table 3: A comparison of purchase research focus by sector

Table 4: A comparison of green alternatives by sector

Table 5: A comparison of the information sources used by sector