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Dietary change – consumer preferences, marketing barriers and enablers, and the role of meat alternative choice(s) in achieving sustainable consumption.

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The conceptual, methodological and substantive domains of this research

- 1) This research builds upon existing theories of consumer behaviour, sustainable and ethical consumption and social marketing. It aims to improve academic and practical understanding of the effect of socio-environmental attributes on consumer preferences regarding meat and meat alternative products and examine how more sustainable consumption patterns can be achieved. It is based upon the idea that marketing strategies can be used with the ultimate aim of changing behavior in order to benefit the target audience and society in general.
- 2) This research adopts objectivism with a positivistic theoretical underpinning. The methodology for this research involves a Discrete Choice Experiment (DCE), which is an approach of experimental research. In this method respondents are presented with a number of alternatives and asked to choose the one that they prefer or believe it will maximise their benefit. Focus groups will be used to validate the attributes derived from the literature review and help design the DCE.
- 3) Climate change, environmental concerns, sustainable development and food security have recently drawn a lot of attention. This environmental and social impact of food products and their importance to consumers is the focus of this paper. In effect, this study is focusing on the demand side of sustainable development. It investigates the possible ways that more sustainable meat consumption patterns can be achieved through social marketing. Meat free alternatives are used as a possible tool of social marketing, in order to achieve a change in consumer behaviour.

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Introduction

In the scientific literature there has been a long debate regarding how high meat consumption can affect consumers' personal health and wellbeing. A 2006 report from FAO though, named "Livestock's Long Shadow - Environmental Issues and Options" (FAO, 2006), brought into the spotlight another aspect of the recent meat consumption patterns. More specifically the report was referring to the heavy load that current food production systems place on the environment, a concern shared by a number of researchers (Fox & Ward, 2007; Gerbens- Leenes & Nonhebel, 2002; Leitzmann, 2003; Pimentel & Pimentel, 2003; Stehfest *et al.*, 2006; Stehfest *et al.*, 2009; White, 2000; York & Gossard, 2004). Meat alternatives defined by Hoek *et al.* (2004) as "primarily vegetable based food products that contain proteins made from pulses (mainly soy), cereal protein, or fungi", are considered by some to be a healthier and more sustainable alternative to meat. Increasing the consumption of meat alternatives may reduce the potential negative effects of high meat consumption on the environment, food security and public health.

This research explicates from a social marketing perspective, the extent to which specific socio-environmental attributes of meat affect consumer behaviour and consumption and explore whether a change in dietary patterns is possible as well as how this could be achieved. The main research question that this study will attempt to answer is 'how can a change in meat consumption be achieved and what role meat alternatives can play in influencing such a dietary shift?'

Literature

A number of researchers notice a rise of consumers' social consciousness globally (Auger *et al.*, 2010). Since the 1990's, researchers have noticed that as products become more similar to each other and therefore more difficult to compare based on their tangible attributes, intangible attributes play a more important role in consumer purchasing decisions (Lefkoff-Hagius & Mason, 1990). Auger *et al.* (2010) also argue that providing information on socio – environmental issues to consumers is impacting their behaviour, giving the example of the increasing popularity of fair-trade coffee in the UK. In this example it is suggested that consumers are not only considering the tangible attributes of coffee, but also its not tangible attributes (e.g., the price paid to farmers in emerging country markets). The challenge for marketing in this context is that these intangible attributes are more difficult to define and describe compared to tangible attributes.

There is a long list of reasons why some people might be avoiding meat. Health (Fox & Ward, 2007; Hoek *et al.*, 2004; Hoek *et al.*, 2011; Ruby, 2011), religion (Fessler *et al.*, 2003), animal welfare (Fox & Ward, 2007; Lea & Worsley, 2001), environmental consciousness (Gaard, 2002; Hoek *et al.*, 2004; Hoek *et al.*, 2011) and food safety (Verbeke *et al.*, 2007; Verbeke & Viaene, 1999) are just some of the reasons of meat avoidance mentioned in the literature.

In addition to the above, consumers might be avoiding meat due to the negative sustainability and food security effects that arise from the resource intensive and inefficient conversion of feed into meat by animals (FAO, 2006; Tilman *et al.*, 2002; York & Gossard, 2004). From an environmental, food security but also ethical perspective, substituting meat with alternative

plant-protein products could be an attractive option (Aiking, de Boer & Vereijken, 2006; Fiala, 2008; Hoek *et al.*, 2004; Jongen & Meerdink, 2001; Smil, 2002).

The last two decades, a series of ecological and food safety crises within the agro-food system renewed the sensitivity towards the environmental and social consciousness related to meat products (Vermeir & Verbeke, 2006). Consumer behaviour is considered to be one of the keys to sustainability (Peattie & Peattie, 2009; Peattie, 2001). Consumers' interest in sustainability, sustainable production and consumption and food safety and security has increased (Grunert, 2005; Jensen & Sandoe, 2002; Verbeke, 2005). A new type of consumer, the ethical consumer, that perceives the importance of the relationship between what is consumed and social issues, has emerged.

Although the purpose of this research is not to prove or draw attention on the issues that high meat consumption is causing, this information has been the springboard for this study. The focus of this paper is on the impact of socio-environmental attributes of meat products on consumer behaviour, the ways that they can be used to influence consumer preferences and meat consumption from a social marketing perspective, and how meat alternative products can contribute to achieving sustainable consumption patterns.

Social marketing, defined by Kotler and Andreasen (1996) as a technique “differing from other areas of marketing only with respect to the objectives of the marketer and his or her organization”, is used to promote ideas as well as social practices, with the ultimate aim to change behavior in order to benefit the target audience and the general society. So in a nutritional context the aim would not be simply to help consumers know about and desire a better nutrition, but to change their eating habits (Kotler & Roberto, 1989).

Peattie and Peattie (2009) suggest that promotion and acceptance of concepts such as responsible consumption, consumption reduction, voluntary simplicity and sustainable lifestyles should be some of the steps taken in order to achieve sustainable and ethical consumption. Kotler (2011) agrees that, although traditionally marketing has been a tool for demand expansion, there are resources that will demand conservation and practices and consumption patterns that will need reduction. Kotler (2011) also argues that with regard to marketing, an assumption of limitless supply of resources and zero environmental impact of production, distribution and consumption has been adopted for many years. But when the resource limitations and costs of externalities are considered, marketing practices have to be reinvented in order to become more sustainably and environmentally responsible. This poses a big challenge for marketing regarding the role that it should play in this process but also the way to make these concepts acceptable to consumers.

From what is known regarding meat consumption, many people have attitudes towards meat but in many situations their attitudes do not affect their behaviour (Vermeir & Verbeke, 2006). Vermeir and Verbeke (2006) also argue that factors such as, convenience, habit, value for money, hedonism, personal health concerns, and individual responses to social and institutional norms are mainly affecting everyday consumption practices and, most importantly, they are likely to be resistant to change. This is also a matter of how much people really know on the issues that they are considering as important or the fact that lots of things can be on people's minds at the time of food shopping, the time-pressure and the information-overloaded food shopping (Grunert, 2006).

The fact that people's attitudes about social, ethical and environmental topics have limited effect on their shopping behaviour doesn't mean that these attitudes don't exist or that they

do not affect other behaviours. This is known as distinguishing people's consumer role from their citizen role, or the consumer-citizen duality. A change, however, might be possible by examining product attributes that are linked with some specific attitudes and this step can be regarded as a useful tool for social marketing.

Aims and objectives

Convincing consumers to change their eating habits is not easily achieved. Although the reduction of meat consumption to zero would be unnecessary in order to achieve a more sustainable lifestyle, an alternative type of diet including more meat alternative products could be useful in order to reduce the overall consumption of meat. This study examines the various ways in which sustainable food consumption can be encouraged through social marketing in the UK. The aims are to identify the socio-environmental and ethical attributes of food that affect consumer behaviour and discover the possible role that meat alternative products can play in reducing meat consumption. The main purpose of the research is to discover whether a change to more sustainable meat consumption is possible and how that might be achieved. To be able to accomplish this more effectively, the study aims to:

- Analyze secondary data in order to find out why and how previous changes in consumption patterns have been achieved in the past.
- Design and conduct a number of focus groups in order to validate the factors influencing consumer behavior regarding food products, as they derive from the literature.
- Model pertinent factors in consumption and consumer decision making regarding meat alternative food choices, that may include food security, environmental sustainability and health consciousness, and analyse the results obtained.
- Segment consumers according to their perceptions, behaviour and level of knowledge, in order to be able to discover how a dietary shift could be possible.
- Investigate a number of possible marketing barriers and enablers.

Methodology

This research adopts objectivism with a positivistic theoretical underpinning. The methodology for this research is called Discrete Choice Experiment (DCE). DCEs are an attribute-based approach to collect stated preference data, and are widely used in many fields (Louviere, Hensher & Swait; 2000) including marketing, health policy and environmental economics. They present respondents with a number of hypothetical scenarios or choice sets composed by a number of competing alternatives that vary along the levels of several attributes, one of which may be price of the alternative or some approximation for it. In a Lancasterian framework (Lancaster, 1966), it is assumed these attributes levels determine the value (utility) of each alternative (Ryan, Gerard & Amaya-Amaya, 2008). In other words DCEs provide a highly structured and objective methodology for investigating data that allows the relationship between a finite set of attributes to be examined without the threat of bias.

One of the most important advantages associated with experimental research such as DCEs is that it allows the change between two or more variables to be measured, providing marketing experts and policy makers with a clear insight into the utility associated with different product features. DCEs allow the understanding of how consumers value various attributes, not by asking them, but by studying their choices (Louviere, Hensher, & Swait, 2000).

Another benefit often associated with DCEs concerns the high degree of internal validity that can be achieved through controlling the experiment environment.

In order to design the DCE, attributes are generated through a review of the existing literature and a series of focus groups. In the focus groups the social, ecological and ethical attributes of meat products, that are influencing consumers' choices, are discussed. The aims of the focus groups are:

- to investigate whether the attributes identified from the literature (Table1) influence consumer behaviour,
- To provide insight into the values associated with different decision making attributes
- To work with a range of consumers, having different meat eating patterns (vegetarians, meat consumers ,meat reducers)

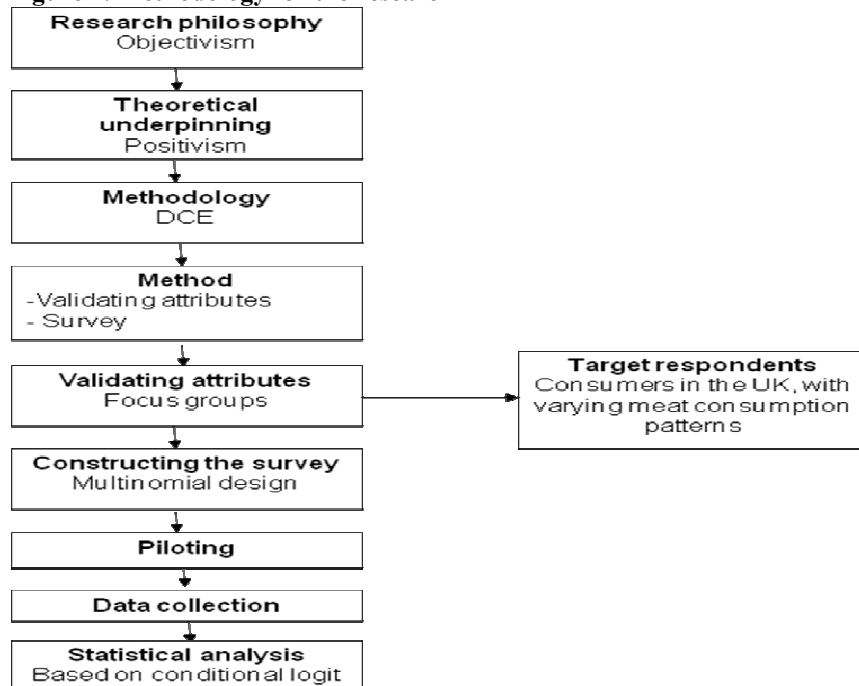
Table 1 Intangible factors affecting meat consumption as identified in earlier studies

Attribute	Reference
Environment	Gaard, 2002; Hoek <i>et al.</i> , 2004; Hoek et al, 2011
Food security	Gerbens- Leenes & Nonhebel, 2002; York & Gossard, 2004
Health	Fox & Ward, 2007; Hoek <i>et al.</i> 2004; Ruby, 2011
Food safety	Verbeke <i>et al.</i> 2007; Verbeke & Viaene, 1999; Vermeir & Verbeke, 2006;
Animal welfare	Fox and Ward, 2007; Lea & Worsley, 2001; Ruby, 2011; Verbeke & Viaene, 1999
Religion	Fessler <i>et al</i> , 2003; McAfee et al, 2010
Country of origin	Grunnert, 2006; Hoffmann,2000
Local production	Grunnert, 2006

The outcome of these focus groups will allow the author not only to decide which of the attributes to include in the research but also investigate consumers' understanding of these attributes. As shown in Figure1, following the focus group and validation of attributes stage, the DCE will be constructed based on a multinomial design approach. Data from the focus groups will help constructing the scenarios for the survey, where people will be asked to select from a number of choices, the one that they think that maximizes their benefit (utility).

Although other approaches able to model latent variables, such as structural equation modelling, have been considered for this research, DCE was preferred as a better choice. The choice was predominantly based on the fact that earlier researches emphasize the importance of the gap that exists between consumers' buying behavior and their positive attitude toward ethical and sustainable products and that although many consumers profess to want to act responsibly and ethically in the marketplace yet only a few of them do (Carrigan & Attalla, 2001; De Pelsmacker *et al.*, 2005; Devinney *et al.*, 2010; Eckhardt *et al.*, 2010). DCEs are able to more effectively address this citizen consumer duality problem, very important in the context of the current research due to the nature of the related attributes, and are considered a more robust method to study consumer preferences and behaviour over a large number of hypothetical but realistic scenarios.

Figure 1. Methodology for the research



Contribution to theory and practice

In the existing literature, there are numerous studies that examine the factors that influence consumer behaviour and consumption of food products, usually leading to the construction of models in order to predict future changes in demands (Krystallis & Chrysohoidis, 2005; Michaelidou & Hassan, 2010; Thomson & Kidwell, 1998). However these models tend to neglect the ethical, ecological and socio-cultural context of food consumption.

Overall, there are important theoretical and practical implications that may derive from the findings of this thesis. Building on existing theories of consumer behaviour, sustainable and ethical consumption and social marketing, the original contribution of this research to the literature is based upon the fact that it is focused on the environmental and social aspects of the consumption of one of the most basic food elements of Western civilization. The research uses experimental research and DCE to better understand how these aspects can affect consumer perceptions and subsequently consumer behaviour in the UK, how such a shift can be achieved through social marketing and the role of meat alternatives as healthier, more sustainable and more ethical alternatives to meat products.

In terms of practical implication, working on the project with a large manufacturer of meat alternative products, provides the additional means and information for this study to understand the importance of social and ecological attributes in influencing consumer behaviour, the ways that social marketing can be used to promote sustainable consumption and segment the consumers according to their preferences and perceptions in order to be able to communicate with each segment in the appropriate "language" and apply more effectively the pertinent marketing strategies. The outcome of this research will be of interest from a food industry marketing perspective and for industries and organizations trying to become more proactive with respect to Consumer Social Responsibility and increase the impact of their Corporate Social Responsibility initiatives. In addition, this thesis will provide useful information to policy makers, government and non-government organizations that deal with public health, environment and sustainable development as well as consumers in general.

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