

**Nudging Closed the Attitude-Behaviour Gap:
The Role of Certification Schemes in Online Grocery Stores**

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Declaration of Authorship

I hereby certify that this dissertation, which is approximately 12,547 words in length, has been composed by me, that it is the record of work carried out by me and that it has not been submitted in any previous application for a higher degree. This project was conducted by me at the University of St Andrews from May 2020 to August 2020 towards fulfilment of the requirements of the University of St Andrews for the degree of MLitt Marketing under the supervision of Julie Brooks.

I am aware that the digital version of my dissertation may be made available online in the University's secure, password-protected intranet (the Virtual Learning Environment), where it will be read by staff and students authorised by the School of Management, and I do consent to this process.

Date: 14 August 2020

Signature of Candidate:

A handwritten signature in blue ink that reads "Julia Eugenia Morris". The signature is written in a cursive style with a large initial 'J'.

Dedication & Acknowledgements

My late grandfather dedicated much of his life to making grocery stores better for customers. It was a privilege to be his granddaughter and to dedicate this paper to his memory.

I'd like to thank Julie Brooks for her support and guidance on this dissertation, which did not falter even in the circumstances of a global pandemic.

Abstract

This research paper will examine the choice architecture of online grocery stores in the United Kingdom which may promote or restrict purchases of ethically certified products in order to minimize the gap between ethical attitudes and ethical consumption behaviour. This research suggests that manipulating the choice architecture of online grocery stores may close the attitude-behaviour gap by facilitating ethical purchase behaviour from consumers with existing ethical attitudes. In examining seven online grocery stores in the United Kingdom, the research found that the majority of choice architecture does not align with the principles of nudging to promote the purchase of ethically certified goods. As such, recommendations are made to improve the choice architecture in order to encourage ethical consumption behaviour, minimizing the attitude-behaviour gap.

Key Terms: Ethical Consumption, Attitude-Behaviour Gap, Ethical Certification, Certification Scheme, Nudge, Choice Architecture, Ecommerce

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Terms & Abbreviations

Ethical consumption	The behaviour of ethically minded consumers who are conscious of the environment and society. Ethical consumption often pertains to human rights, social justice, the environment or animal welfare.
Sustainable	When used in this paper, it is meant to be synonymous with ethical and account for environmental <i>and social</i> sustainability
Label / seal / certification (used interchangeably)	The symbol that appears on product packaging signifying coherence with regulations of a particular certification scheme
Nudge	Indirect suggestions or structure with the intent of influencing decision making and behaviour (Thaler & Sunstein, 2008)
Choice Architecture	The constructed environment, either physical or digital, in which a decision is made (Thaler & Sunstein, 2008)
TPB	The theory of planned behaviour

1 Introduction

After tracking ethical expenditure over two decades, British consumer co-operative Co-op published an in depth report stating the market for ethical products had grown from £11.2bn in 1999 to approximately £41.1bn in 2019—a nearly 400% increase (Co-op, 2019). Of the various sectors that were studied, ethical food and drink showed the most dramatic growth, from approximately £1bn to nearly £12bn (Ibid). Ethical consumption refers to purchases made in consideration of human rights, social justice, the environment or animal welfare. Much like Co-op’s report, this paper aims to understand the factors which affect ethical consumption and how to translate ethical purchase intention into actual ethical purchases.

Through the lens of online grocery stores in the United Kingdom, this research paper will examine the choice architecture which may promote or restrict purchases of ethically certified products in order to minimize the gap between ethical attitudes and ethical behaviours. Online grocery shopping is the ideal system to examine as the young demographic of early adopters of online grocery shopping is somewhat aligned with those who are passionate about ethical consumption. Organic and Fairtrade are utilized as a representative sample of ethical certification schemes, which function as a barometer for the broader category of ethical goods. This research suggests that manipulating the choice architecture of online grocery stores may close the attitude-behaviour gap by facilitating ethical purchase behaviour from consumers with ethical attitudes and intentions.

Choice architecture, the constructed environment in which individuals make choices, can dramatically impact consumer behaviour (Thaler & Sunstein, 2008). While all choice architecture is affected by the conscious and subconscious wills of its designer, behaviour can be subtly influenced by ‘nudges’, while still preserving the free will of the consumer. The goal of this research is to understand how nudging may be used to take advantage of stimulated social consciousness in order to change actual purchase behaviours in online grocery shopping.

2 Literature Review

In recent decades, the topic of ethical consumption has been widely studied. Academics and corporations share a vested interest in understanding consumer behaviours around ethical consumption for the benefit of the planet and profits (Charter, 1992; Woolverton & Dimitri, 2010). This literature review will discuss the findings of relevant research in the areas of ethical consumption, including the attitude-behaviour gap, the marketing of ethical products, ethical food certification schemes, and the behavioural economics concept of nudging.

2.1 Ethical Consumption

Particularly in the most recent two decades, copious literature has been written on the topic of ethical consumption in a variety of approaches and subtopics. The term ethical consumption is largely understood in two schools of thought. In one sense, consumer ethics has been widely researched as a study of shopping behaviour and misbehaviour, such as shoplifting or purchasing illicit goods (for a review see Vitell, 2003). More recently, the topic has focused on conceptions of individuals' responsibility towards society, the environment, and the manifestation of this responsibility in consumption behaviours.

Table 1 Chronological breakdown of seminal ethical consumption research.

Time	Focus	Prominent literature
1970-1979	Development of the concept of an ethically minded consumer	Anderson & Cunningham, 1972;
1980-1989	The theory of planned behaviour	Ajzen, 1985*
1990-1999	Understanding the market for ethical consumption	McDaniel & Rylander, 1993; Strong, 1996
2000-2009	In depth understanding of ethical consumers and the factors which motivate individuals to consume ethically	Shaw & Shiu, 2003; Gilg et al, 2005; Terlau & Hirsch, 2005; Vemier & Verbeke, 2006; Moisander, 2007; Newholm & Shaw, 2007; Starr, 2009; Aertsens et al, 2009;
2010-2019	Application of the attitude behaviour gap to ethical consumption	Smith, 2010; Young et al, 2010; Barnett et al, 2010; Bray et al, 2011; Hassan, 2016

*While Ajzen's theory of planned behaviour does not primarily focus on ethical consumption, it has significant implications on the topic.

The term 'green consumerism' is often used interchangeably with the latter definition of ethical consumption, encompassing 'a range of practices centred on lowering consumption, consuming more sustainably, or ameliorating the negative social and environmental effects of

consumption' (Mansvelt & Robbins, 2011: x). This paper will employ this understanding of ethical consumption, specifically tailored to the role of social and environmental responsibility in consumer choice.

Influencing wider cultural narratives on climate change, human rights, and social justice, consumption—whether intentionally or covertly—can be a vehicle for harm or good in the world. Ethical consumption exists within the wider social, economic, political, and environmental dialogue of human impacts on the environment. Mansvelt and Robbins (2011: xi) described it as 'a mode of being, a way of thinking and acting in the world'. The act of consumption has become increasingly moralized, as consumers connect their choices to their impacts on the world (Barnett et al, 2010). Some academics, such as Muldoon (2010) question whether ethics and consumption are inherently at odds due to the detrimental impacts of mass consumption and throw-away culture on the planet. Adams & Raisborough (2010) designate ethical consumption a 'growth market', not only signified by the wealth of academic research, but also by the emergence of social and political movements centred around issues like fair-trade, corporate social responsibility, and sustainable consumption (Barnett et al, 2005).

A consensus amongst the academic literature sorts consumers into three categories: individuals who are self-motivated to consume ethically based on intrinsic qualities; individuals who are motivated by social factors, who may consume ethically because of existing norms or might be persuaded to consume ethically if norms were established; and individuals who have no interest in ethical consumption due to a lack of intrinsic motivation and insensitivity to social norms (Sen et al., 2001; Janssen and Wander, 2002; Brekke et al., 2003; Eriksson, 2004, Starr, 2009).

A large body of literature discusses the motivators for ethical consumption on an individual level. In their seminal paper on socially conscious consumption, Anderson and Cunningham (1972) found that socio-economic status, occupation and age of household head can be determinants of social consciousness. Recent research by Sogari and colleagues (2017) reinforces the relationship between age and ethical behaviour, finding that younger consumers have an increased awareness of sustainability jargon, which paired with the culture of sustainability and globalisation, translates into increased ethical behaviours. Shaw and Shiu (2011) raised concerns about the value of ethical consumer research which employs surveys to demographically profile consumers, which may ultimately serve corporate priorities.

Anderson and Cunningham's (1972) research further discovered that while demographics can impact socially conscious consumption, socio-psychological factors such as status

consciousness, cosmopolitanism, and conservatism, are superior predictors of ethical behaviour. Bray, Johns, and Kilburn (2011) explored the factors which impede ethical consumption, finding that price sensitivity, personal experience, ethical obligation, lack of information, quality, inertia, and cynicism are the primary determinants of ethical consumption. Starr (2009) found that politically active individuals are more likely to buy ethically, noting a wider influence of proactive attitudes in social and political participation. Low and Davenport (2007) suggest that ethical consumption must have a heightened connection to politics, rather than be an individual act. Further literature, such as Aertsens and colleagues (2009), expands upon attitudes and their ability to predict ethical behaviour, applying behavioural models such as Ajzen's Theory of Planned Behaviour, which will be discussed later in this literature review (see section 2.1.2).

While factors on an individual level have been found to motivate ethical consumer behaviour, researchers have also explored the social factors, such as values and norms, which promote ethical consumption. As many individuals consume ethically to express responsibility towards society, there is a requirement to understand the cultural context of ethical consumption (Barnett et al, 2005; Vermier & Verbeke, 2006). The complexity of social norms' impact on consumers' motivations. Researchers distinguish between the value of being seen engaging in socially desirable behaviour versus actually aligning with the norms of their community or social group (Esther, 1989; Starr, 2009).

This social pressure to consume ethically presents a challenge for researchers, creating a social desirability bias (Cowe & Williams, 2000). Measured attitudes may appear more positive than actual behaviour if respondents conform to social norms in a research setting and fail to accurately report their attitudes (De Pelsmacker, 2005; Calvin & Lewis, 2005; King & Bruner, 2000; Greenwald & Banaji, 1995; Maison, 2002). This contributes to the attitude-behaviour gap (see section 2.1.2).

2.1.1 Attitude-Behaviour Gap

In order to understand the attitude-behaviour gap, it is imperative to analyse one of the most prominent theories of consumer behaviour, Icek Ajzen's (1985) theory of planned behaviour (TPB). TPB is a theory of attitude behaviour relationships that places factors into a fixed causal sequence: a combination of attitudes, subjective norms, and perceived behavioural controls affect intentions which in turn affect behaviour (Figure 1, following page) (Ajzen & Fishbein, 1980; Ajzen, 1991; Shaw & Shiu, 2001). Some studies have also shown a direct link between perceived behavioural controls and behaviour (Ajzen, 1991).

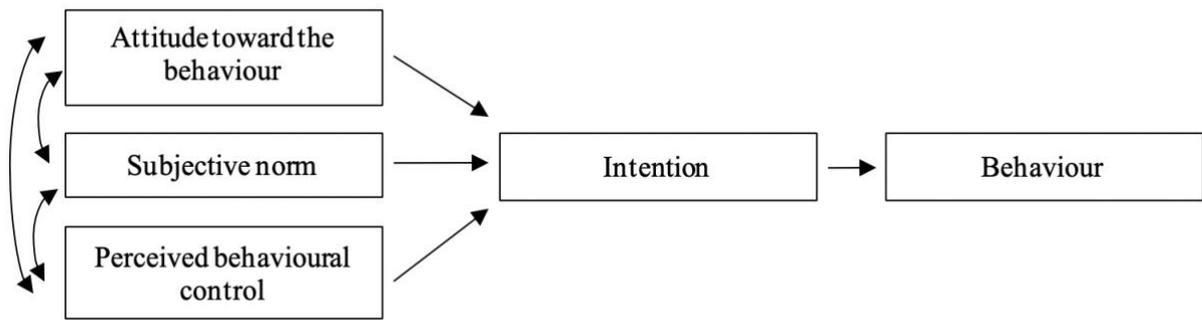


Figure 1 Theory of planned behaviour visualization (Ajzen, 1991).

The theory of behaviour has been adopted by many researchers as a tool to examine ethical consumption decisions. Researchers have expanded the framework with additional measures of self-identity (Shepherd, 1992; Shaw et al., 2000; Shaw and Shiu, 2003), which connects to the individual motivators previously discussed. Additionally, a measure of ethical obligation serves the theory when modelling ethical consumption. While these measures improve the theory of planned behaviour's ability to model ethical consumption behaviour, the model fails to explain why many individuals with socially and environmentally responsible attitudes do not engage in ethical consumption behaviour.

This inconsistency between attitudes towards ethical behaviour and actual behaviour constitutes what is known as the attitude-behaviour gap (also infrequently referred to as the value-actions gap) (Boulstridge & Carrigan, 2000; De Pelsmacker et al, 2005; Young et al, 2010; Terlau & Hirsch, 2015). Similarly, there is a gap between intention to act ethically and actual behaviour, known as the intention-behaviour gap (Carrington et al, 2010; Megicks et al, 2012; Hassan et al, 2016). This gap is evidenced in quantitative research by Hughner and colleagues (2007) who found that 46-67% of consumers hold favourable attitudes towards organic foods, but actual purchase behaviour ranges from 4-10% of product ranges. Acknowledging the attitude-behaviour gap allows for research on the specific barriers to ethical consumption that may be intervening between attitudes and behaviours.

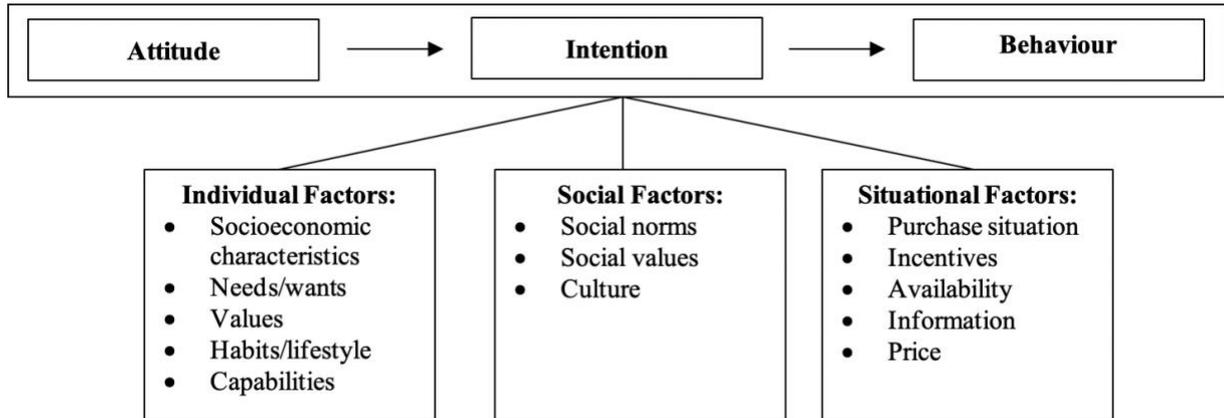


Figure 2 Factors influencing the attitude-behaviour and intention-behaviour gaps (based on Terlau & Hirsch, 2015).

The barriers that influence consumption can affect both individuals with limited consideration of ethical consumption and those that have a strong identity as an ethical consumer. While many consumers have ethical intentions, they default to historic product preferences in the marketplace, ignoring their previous social and ethical convictions (Devinney et al, 2006). According to Neo (2014) and Eckhardt and colleagues (2010), these barriers include cognitive dissonance, institutional dependency, developmental realism, economic rationalization, and meaningful substitute availability.

The mental conflict between contradictory beliefs and actions—such as one’s identity as an ethical consumer and unethical buying behaviours outlined in the attitude-behaviour gap—is called cognitive dissonance. Similarly, consumers avoid responsibility by shifting the burden of ethical responsibility to institutions, often governmental bodies, which is known as institutional dependency. In this school of thought, consumers rationalize the options in the market place should be approved by institutions for sale, such that if an item ‘legally available to them, consumers feel it must be okay to buy it, since the government has sanctioned its sale’ (Eckhardt et al, 2010: 431). While this logic is not extremely common, it is especially prevalent in social democracies in which citizens feel absolved of personal responsibility due to government intervention (Eckhardt et al, 2010).

Based on the belief that the status quo of development is inherently exploitative, developmental realists sacrifice consumer ethics in exchange for economic growth (Eckhardt et al, 2010). Developmental realism operates under the justification that workers in poor labour conditions with low pay are better off in such conditions than they would be if they were unemployed. As such, poor labour conditions are a necessary evil for economic growth which some argue offer relative benefits if compared to the pre-existing conditions of the workers.

Some individuals prioritise cost as the most important variable in purchase decisions, justifying the financial barrier to ethical consumption in what is called economic rationalization. Quoting one respondent in their study, Adams and Raisborough (2010: 263) exemplified this conflict, ‘a typical shopping trip will be a balancing act between my social conscience and the size of my purse’. This is supported by a Belgian survey on willingness to pay price premiums for Fairtrade coffee in which only 10% of all respondents were willing to pay the current price premium of 27% (De Pelsmacker et al, 2005). This research exemplifies the financial barrier to ethical consumption.

Consumers must assess the accessibility—cost (as previously discussed), availability and reliability—as well as necessity. In this sense, necessity is determining if a product's function can be fulfilled by an alternative (Neo, 2014). Meaningful substitution contrasts ethical products with their conventional counterparts, in order to highlight the *relative* moral and social benefits. This allows for consumers to understand the benefits of the ethical choice while simultaneously recognizing its drawbacks in terms of accessibility. The accessibility factors (price and availability), paired with information and incentives, outline the situational factors which affect the attitude-behaviour gap for ethical consumption (Table 2).

Table 2 Situational factors affecting the ethical consumption attitude-behaviour gap.

Factor	Description
Price	Cost of the product, particularly in contrast to a conventional product
Availability	Availability of ethical products in conventional stores, impacting the convenience of purchasing an ethical product
Information	Information or knowledge regarding the benefits of ethical products
Incentives	Stimulus which encourages consumption of ethical or conventional products

2.2 Selling Ethics

While ethical consumption is driven by consumers, firms can leverage, and exploit, ethical intentions. This section will discuss marketing of sustainable products, also known as green marketing and introduce the concept of greenwashing—the exploitation of consumers based on their desire to consume ethically.

2.2.1 Green Marketing

Green marketing addresses the growing consumer market for socially and environmentally responsible products (Delmas & Burbano, 2011). While the word ‘green’ is widely associated with the ecological environment, the interconnectivity of environmental and social issues expands the terms meaning to more closely align with ethical consumption as a broader concept (Gilg et al, 2005). Gilg and colleagues (2005) call for a shift in the language of green marketing to define which values are included in the term and increase consumer understanding. Academic study of green marketing became prominent in the 1990s as firms began to incorporate environmental and social responsibility into their marketing, which consequently launched government regulations in order to protect consumers (Polonsky, 1994). From a corporate standpoint, there are motivations to market a product as ethical. Charter (1992) found that consumers are more likely to purchase from a firm if they perceive that firm as socially responsible.

2.2.2 Greenwashing

Greenwashing, which became popular in the 1980s, is the concept of communicating ethical values without merit (Dahl, 2010). Ranging from ‘overblown claims’ to purely fictional statements, greenwashing can function on a product or firm level. Delmas and Burbano (2011: 65) eloquently describe greenwashing as the intersection of two behaviours, ‘poor environmental performance and positive communication about environmental performance’. TerraChoice (2010), an environmental consulting firm, released a report finding that over 95% of the ‘green’ products they studied were greenwashed on some level.

Misleading consumers about a firm or products ethical values is detrimental not only to consumers, but also to society as a whole as it adds confusion to the ethical consumption landscape (Delmas & Burbano, 2011). Chen and Chang’s (2013) empirical study into the effects of greenwashing found that greenwash is negatively related to brand trust, and therefore brands must reduce greenwashing behaviours to maintain consumer trust. If a firm engages in greenwashing practises, there is significant risk of exposure, which forces a negative association of the firm and ultimately affects financial performance (Du, 2015). As a result of the negative impacts of greenwash, Parguel and colleagues (2011) suggest that sustainability ratings could help inform consumers’ evaluations of a firm or product’s ethical value. Further research is needed on the topic to understand the effects and logistics of general sustainability labels.

2.3 Ethics & Food

The production and consumption of food plays a significant role in the wider setting of ethical consumption. Some individuals may consider food products with minimal adverse effects on the environment, animals, health, and social welfare to exemplify ethical products. Ultimately ‘ethical’ is subjectively constructed by individuals who balance their personal social, ethical, and moral priorities (Neo, 2014). Consumers have become increasingly aware of the social, environmental, and health impacts of food consumption due to food scares (such as Foot and Mouth disease) and growing criticism of food production in mainstream media (Grunert, 2005). Food production also plays a significant role in climate change debates. In industrialised economies, an estimated 25% of emissions can be traced to food (Rosenthal, 2009).

While the need for ethical consumption to be applied to food consumption is clear, the gap between attitudes and behaviours is prominent as ethics compete with other factors during the decision-making process (Grunert et al, 2014). While most ethical choices will compete with price, food choices have the additional complexity of taste and health, which some consumers may prioritise over ethical factors (De Pelsmacker et al, 2005; Grunert et al, 2014). Extending beyond the literature that covers the consumer motivations for ethical consumption, there has been more recent interest in consumer perceptions of ethical marketing (see section 2.2).

2.3.1 Certification Schemes

Certification schemes, which label consumer products as ethical, has grown exponentially in popularity in recent years, and so has the academic literature on the topic. Many schemes, such as organic, Fairtrade, and Carbon Trust, focus the ethical value of a product on its production processes (Woolverton & Dimitri, 2010). Functioning similarly to nutrition labels, certification schemes aid consumers in making informed consumption choices (Grunert et al, 2014).

It is imperative to note that certification labels alone do not qualify a product as ethical, but can support the consumer perception of a particular product (Grunert et al, 2014). Similarly, products can also be ethical without bearing a label qualifying it as such. Teisl and colleagues (1999) discussed how certification schemes are best employed to reinforce consumer perceptions of a particular product. For example, a locally produced vegetable does not need to bear a carbon footprint label in order for consumers to perceive it as an ethical choice; many consumers will be aware that vegetables have low production emissions and the local factor communicates the minimal emissions impact of transport (known as food miles). In this case, the label could help communicate the product's existing ethical value. In that sense, certification schemes can be

employed to differentiate products and affect consumer rankings, rather than create entirely new perceptions (Teisl et al, 1999). That said, Janssen and Hamm (2012) found that consumers viewed organic foods more favourably when their packaging featured a certification label.

While certification schemes have many benefits, the attitude-behaviour gap still applies. Horne (2009:180) explains the paradox of certification schemes, particularly pertaining to environmental labels,

'The adoption of eco-labels is seen variously as an opportunity for increased sales through product differentiation, increased accountability, or increased choice for consumers in a greening retail environment. The reality often is too many products, too much information, too little time, and a paucity of independent, accessible, readily accessible and understandable information about environmental performance.'

Barriers to usage of certification schemes is a popular topic amongst academics. Teisl and colleagues (1999) discuss how the volume of symbols, programs, and certification organizations confuse consumers. This is supported by Iyengar and Leppers's (2000) findings that too much choice overwhelms consumers, constraining decision making. Contrarily, Vigors (2018) finds that greater choice offering increases willingness to pay. These conflicting accounts of choice indicate that more research is needed to understand the effect of choice variety on consumption behaviour. It could also be suggested that a balance of product choice is necessary to create the optimal decision environment.

Furthermore, the value of certification schemes is significantly limited by a lack of consumer trust in the certifying entity, whether the scheme be privately or government regulated (Woolverton & Dimitri, 2010). Many consumers feel that certification schemes are not an objective means of comparing marketing claims or products (Teisl et al, 1999). Regardless, consumers are reliant upon the sellers claims, particularly if they lack an understanding of the certifying entity (Woolverton & Dimitri, 2010). Horne (2009) found that consumers are attracted to simpler certification symbols, as they allow for easy decision making, but adds that simplicity must be balanced with enough detail to give merit to the scheme. As such, it is imperative that certification labels balance detail and clarity, ultimately restricting sellers' ability to manipulate claims through their use (Teisl et al, 1999). Furthermore, Horne (2009) finds that regulated and government labels as preferred to private, voluntary ones. Woolverton and Dimitri (2010) concur, suggesting that regulated schemes warrant more consumer trust as governments are able to levy taxes and fines if the certification is misused. Furthermore, in cases of privately organised

certification schemes, Albersmeier and colleagues (2009) suggest the use of third party auditors in order to regain consumer trust.

Organic

Organic labelling has been widely studied in academia, with a particular focus on consumer perceptions. While the specific regulations for organic certification vary by scheme and region, organic broadly refers to methods of production which cycle resources to promote ecological wellbeing, often restricting the use of potentially harmful pesticides and fertilizers. In many regions, including the United Kingdom and European Union, the use of the word ‘organic’ is restricted, even when not using a formal label or seal (Gov.uk, 2016).

Saher and colleagues’ (2006) research, using a sample of Finnish students, found that individuals generally held a positive view of organic labelled foods, with particular influence of positive perceptions due to factors such as meat avoidance, magical thinking about food and health¹, intuitive thinking style² and self-transcendence³ values. This aligns with Aertsens and colleagues (2009) understanding of determinants of ethical consumption as previously discussed (see 2.1 *Ethical Consumption*).

While consumers generally view organic labelling favourably, Arvola and colleagues (2006) found that some products, such as apples, are more affected by the organic label than others, such as pizza. This may be due to pre-existing perceptions of health and organic values, and the alignment of those perceptions with the food item. Janssen and Hamm (2012) found that while consumers have positive views of organic foods, few consumers trusted the claim without the presence of a certification label. Thøgersen and colleagues (2012) found that when making simple, low involvement choices, consumers use the same heuristics to purchase organic products as they do conventional products.

Fairtrade

Founded upon the idea that responsible production, sales, and purchases can benefit the livelihood of all parties and greater society, Fairtrade is a global network of producers, firms, organizations, and consumers (Fairtrade, n.d.). Fairtrade is one of the fastest growing schemes for

¹ Magical thinking refers to the idea that one can influence specific outcomes with unrelated thoughts or actions.

² Intuitive thinking style refers to the impulsive, automatic cognitive response.

³ Self-transcendence is the overcoming of the limits of the individual self, thus realizing what is bigger than the self (and often seeing one’s self as a part of the universe).

ethically certified goods—in 1999 the retail market for Fairtrade products was £21.8m compared to an estimated £1.6bn today (Co-op, 2019).

According to critics, Fairtrade buys from farmers in *relatively* favourable conditions and marketing to developed countries at an ‘ethical premium’(Bird & Hughes, 1997). Littrell and Dickson (1999) combat this view by considering Fairtrade along a spectrum, where the maximum encompasses the development of sustainable businesses and empowerment of artisans and the minimum ensures safe working conditions and equitable price negotiation.

While consumers view Fairtrade products favourable, willingness to buy is contingent upon product availability, credibility, and communication of information (De Pelsmacker et al, 2005). De Pelsmacker and colleagues (2005) found that in order for Fairtrade labels to be perceived as credible, they need to be monitored and subject to third party certification. Consumers also struggle to understand the values of Fairtrade in the congested ethical certification landscape (Grunert et al, 2014).

Carbon Footprint

As carbon footprint certification schemes are more recent developments in the ethical consumption landscape compared to Fairtrade and organic, there is less academic literature on the topic and the existing literature is recent. Vanclay and colleagues (2011) study of food products before and after carbon footprint labelling suggests that carbon footprint labels could be an effective tool in encouraging voluntary ethical behaviour. Gadema and Oglethorpee (2011) discuss the challenges of carbon footprinting food due to technical confusion and communicating the value of carbon footprint labels to consumers. Furthermore, they found that consumers do not feel well enough informed to make consumption decisions based upon carbon footprint, instead defaulting to traditional metrics of quality, taste, and price (Ibid). Hartikainen and colleagues (2014) survey of Finnish consumers revealed a similar knowledge gap, but further discovered a consumer preference for labels which allow for quantitative comparison versus vague labels. In contrast, Upham and colleagues (2011) raise the concern that carbon labelling products burdens consumers with the responsibility to understand and positively react to confusing information; instead, they suggest that a carbon reduction label could be more effective. Rööös and Tjärnemo (2011) draw parallels with organic labelling schemes, raising concern over perceptions of high price and low availability, and lack of information and trust. To combat these obstacles, they suggest that a carbon labelling scheme must be developed which informs the consumer with clearly defined goals (Ibid). While Carbon Footprint is a promising certification scheme, the scheme is not commonly

represented in UK grocery stores. More research is needed to determine the value and use of quantitative and general carbon footprint labels. As public awareness and use of Carbon Footprint is limited, the current research will utilize organic and Fairtrade to represent ethically certified goods.

2.4 Nudging

Nudging, a term coined by Richard Thaler and Cass Sunstein (2008), relies upon the natural behavioural instincts that operate on a subconscious level in order to influence behaviour. Many academics have researched the effects of nudging on food consumption to promote healthy behaviours and decrease obesity (Dayan & Bar-Hillel, 2011; Cioffi et al, 2017; Kraak et al, 2017). Nudging, particularly when paired with additional marketing techniques, can help ‘break through barriers of habitual behaviour’ (Grunert, 2005: 384). It is imperative to recognise the distinction between marketing and nudging. Nudging relies on the subconscious behaviours and heuristics that individuals naturally possess, for example, organizing ethical products in a specific aisle of a grocery store to draw attention to them. Marketing encourages an individual to purchase a particular product through techniques such as discounts or free samples.

A prominent challenge of nudging is ensuring that the efforts are suggestive rather than coercive (Vigors, 2018). As such, nudges are an expression of ‘libertarian paternalism’. Libertarian refers to freedom of choice while paternalism refers to intentional influence. Thus, libertarian paternalism is intentionally influencing behaviour without eliminating freedom of choice (Thaler and Sunstein, 2008).

2.4.1 Choice Architecture

In their research on the external influences of peers and retailers, Tsarenko and colleagues (2013) found that retailers play a critical role in motivating ethical consumption. As such, retailers can improve the environment in which ethical products are purchased to encourage ethical behaviour by constructing choice architecture. Choice architecture is the constructed environment in which decisions are made. Nudges can be applied to choice architecture to influence behaviour in that particular environment, relying on the subconscious instincts of an individual (Thaler & Sunstein, 2008). As situational factors heavily impact the attitude-behaviour gap, choice architecture functions as a situational intervention using nudges. Vigors (2018) importantly notes that all decisions are made against a background of choice architecture, whether that environment has been consciously constructed to encourage a particular behaviour or not.

Choice architecture is particularly relevant to food consumption as food buying decisions often follow automatic, unconscious information processing patterns, rather than conscious thought (Grunert, 2005; Ajzen & Fishbein, 2000). In a study conducted by Thorndike and colleagues (2014), a choice architecture intervention of labelling food items in a large cafeteria was successfully implemented to encourage healthier consumption.

A critical facet of choice architecture is the inclusion of information which can help consumers make decisions. For example, when a large Swedish burger chain labelled their entire menu with the carbon footprint of each item, sales of the climate friendly options increased by 20% (Rosenthal, 2009). This is supported by Momsen and Stoerk's (2014) finding that additional information can increase sensitivity to ethical issues, ultimately translating into purchase.

2.4.2 Online Choice Architecture

Online choice architecture is critical when applied to the experience of online grocery shopping. Unfortunately, the research which has been conducted on the topic of online grocery shopping, primarily focuses on the factors which motivate consumer adoption of online grocery stores rather than the consumers' experience using such a platform (Hansen, 2008; Hand et al, 2009; Galante et al, 2013). A report from management consulting firm, McKinsey, conducted by Galante and colleagues (2013), further explored the components of the online shopping experience which impede consumer adoption, noting the importance of usability, convenience, quality, assortment, and price.

Some additional research has examined the online retail environment itself, such as Breugelmans and Campo's (2011) which determined the effectiveness of different promotional units in a website, finding that the first screen was the most powerful. Benn and colleagues' (2015) eye-tracking study found that participants focused on the product image, rather than any detailed product information, mimicking a traditional brick-and-mortar shopping experience. In contrast to a traditional shopping experience, a review of online grocery shopping literature by Pitts and colleagues (2018) references consumers' hesitancy to purchase perishable items, noting that household goods were more frequently purchased (Clark & Wright, 2007; Elms et al, 2016).

2.5 Summary & Research Questions

As the attitude-behaviour gap limits ethical purchases from ethically minded consumers, the choice architecture of online grocery stores can influence purchase behaviours. Recognisable ethical certification schemes, if utilised correctly, can function as a vehicle to communicate ethical

product dimensions to consumers and therefore can be used to nudge consumers. The current research will examine if nudging principles are present in online grocery stores, specifically focused on the promotion of ethically certified goods. Subsequently, the research will explore how nudges may be used to help overcome the attitude-behaviour gap.

Research Question **How do online grocery stores align with nudging principles and choice architecture to promote the purchase of ethically certified goods?**

Secondary Question **How can nudging be more effectively used to close the attitude-behaviour gap regarding the purchase of ethically certified goods?**

3 Methodology

This chapter will discuss the philosophy, approach, strategy, and design of the current research, including the data collection and analysis techniques. Wilson’s (2013) honeycomb of research methodology (Figure 3) represents and visualizes the elements of the methodology. The honeycomb figure is particularly helpful as it presents the elements of the methodology in a non-linear fashion, showing the interconnectivity of the parts to create the methodology as a whole (Wilson, 2013). This chapter will discuss the components of the honeycomb of research methodology, beginning with research philosophy and continuing in a clockwise order around the honeycomb.

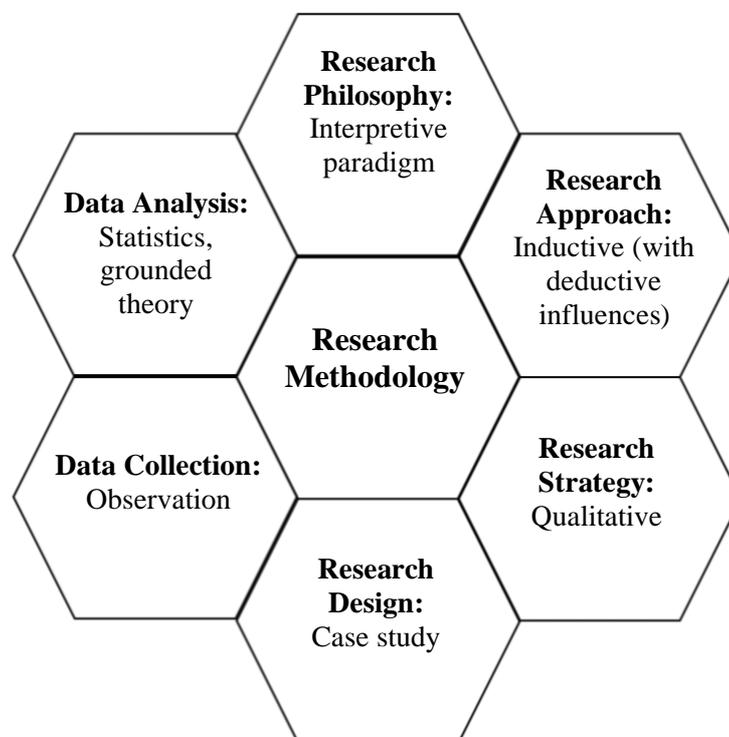


Figure 3 Honeycomb of research methodology for the current research (Wilson, 2013; authors own illustration).

3.1 Research Philosophy

All organizational research is based upon a theory of society and a philosophy of science (Burrell & Morgan, 1979). Thus, it is imperative to address the paradigms which structure the researchers thinking. In simple terms, paradigms are the lenses through which individuals examine the world, providing an important frame of reference in both reading and conducting research. This paper employs the interpretive paradigm defined by Burrell and Morgan (1979). Figure 4 (following page) illustrates the axes which create Burrell and Morgan’s (1979) four paradigms.

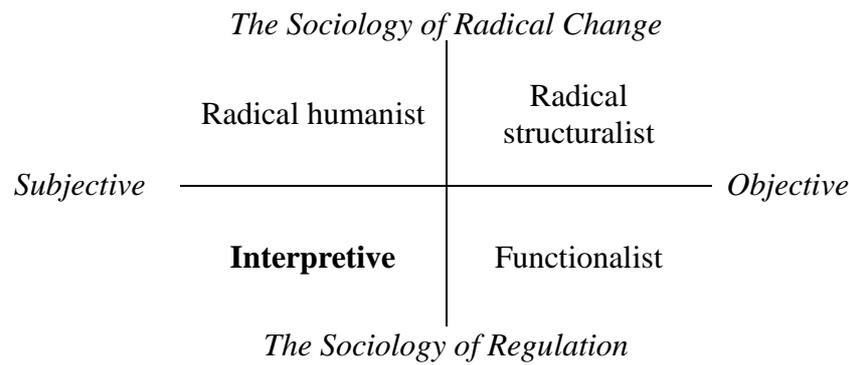


Figure 4 The four paradigms for the analysis of social theory (Burrell & Morgan, 1979; author's own illustration).

The horizontal axis juxtaposes objective and subjective interpretations of reality. Within the interpretive paradigm, individual, subjective experiences shape the social world (Burrell & Morgan, 1979: 3). On the vertical axis, radical change is contrasted with regulation. The sociology of regulation considers the world fairly stable so it can be studied as a status quo. As such, the interpretive approach is centred around the subjective experiences of individuals which consequently construct a network of assumptions and intersubjectively shared meanings. Interpretive research often relies on qualitative methods which allow for the researcher to account for the subjectivity of the topic. The aim of interpretive research is to provide insight into the relational process in order to generate cohesion and predictability.

The interpretive paradigm has been employed by researchers studying ethical consumption (Dolan, 2002; Schaefer & Crane, 2005), as it highlights the interconnectivity of an individual's self-identity, consumption behaviors and society (McDonald et al, 2009). The interpretive approach places equal priority on understanding human experiences and the explanation, prediction, and control (Holloway & Wheeler, 2002). The interpretive paradigm serves the current research as it requires analysis of the current, fairly stable system of online grocery stores and has a strong relationship to an individual's consumption experience, in this case that of the author. Similarly, while awareness of bias minimizes the effects, the current research is conducted through the lens of the author. As the interpretive paradigm is used, acknowledging the subjective experience of the author benefits the research.

3.2 Research Approach

Given the nature of the research question, this research is influenced by both inductive and deductive techniques. Inductive research methods build upon theory, 'starting with observations

of specific instances, and seeking to establish generalization about the phenomenon under investigation' (Hyde, 2000: 83). In contrast, deductive research relies upon an existing theory which informs hypotheses that are tested in the research. As this research does not rely on quantitative data in order to test hypotheses based on existing data, the tendency is to classify it as entirely inductive. Yet, this research is rooted in the existing theories of nudging and choice architecture. As such, it is helpful to consider a combination of inductive and deductive thought processes in which theory and observations function cyclically (Figure 5). Albeit, the final outcome will be observations rather than theory, as in the deductive approach. Both inductive and deductive research approaches are commonly employed in the field of ethical consumption (Inductive approach examples include Gilg et al, 2005; Grunert, 2005; Bray et al, 2011; Deductive approach examples include Shaw & Shiu, 2003; Vermier & Verbeke, 2006; Hassan, 2016).

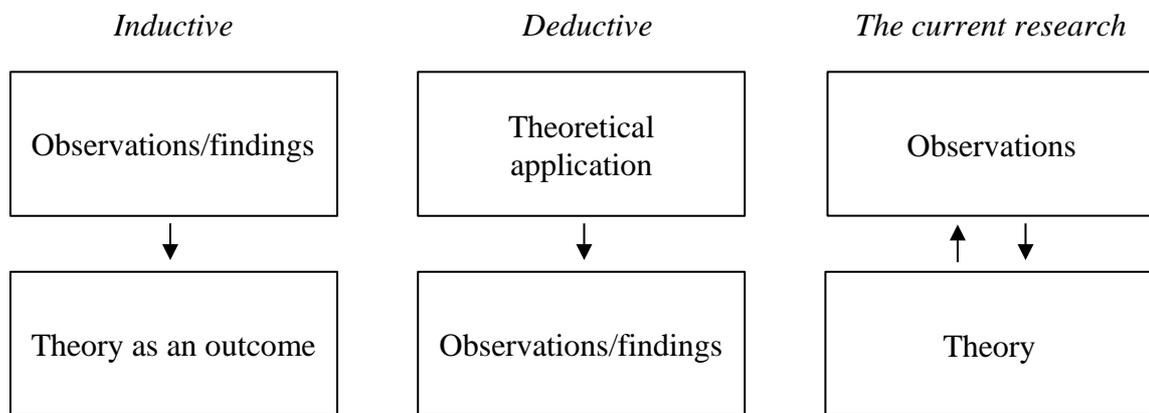


Figure 5 Role of theory in inductive, deductive and the current research (Wilson, 2013; author's own illustration).

3.3 Research Strategy

The current research employs a qualitative approach as this form of research yields more nuanced results which can ultimately render more actionable insights about consumer behaviours. Qualitative research examines narrative data, rather than numerical (Wilson, 2013). A qualitative inquiry allows the researcher to identify potentially subjective influences on consumer behaviour during the online shopping experience.

Historically, quantitative analyses have been utilized to confirm the presence of particular theories, such as the attitude behaviour gap, or identify trends in consumer behaviour (Anderson & Cunningham, 1972; Shaw & Shiu, 2003; Gilg et al, 2006; Vermier & Verbeke, 2006; Hassan et al, 2016). Subsequently, researchers employ qualitative techniques to uncover the meaning and

sentiments behind behaviors or theories (Moisander, 2007; Smith, 2010; Bray et al, 2011; Smith & Brower, 2012). While both quantitative and qualitative analyses contribute to the literature on ethical consumption, qualitative research can often provide nuanced insights with both academic and practical impacts. For example, Horne's (2009) review of eco-labels focused on qualitative aspects of the labels, namely consumer perceptions, in order to discuss the path forward in regard to eco-labelling.

3.4 Research Design

The current research employs qualitative techniques to examine whether or not, and how, online grocery stores use nudging principles and choice architecture to promote ethically certified goods. This research focuses on the online purchase environment due to the rise in popularity of these services paired with lockdown restrictions by the British government during the 2019 coronavirus pandemic (Rahmanan, 2020). In order to analyse these online grocery stores, a combination of action research and case studies are used.

Originating from Kurt Lewin in 1946, action research requires the researcher to take an active role in their research (Lewin, 1946). Action research was conceptualized to bridge the 'chasm between social action and social theory and the lack of collaboration between practitioners and researchers' (Dickens & Watkins, 2006: 186). This form of research is most effective when participants, in this case the researcher, simultaneously critically reflect on the task and self-reflect on their experience (Brown et al, 1982). While Lewin's model of action research suggests an iterative process which separates acting and observing into unique states, the time restrictions on the current research do not allow this (Lewin, 1946). Additionally, as a sole researcher gathers and analyses the data, it is not possible to separate the action of navigating the online grocery store (the action) and the observation. As such, the researcher simultaneously acts and observes each of the online grocery stores. Critics of action research raise concern about a lack of rigor comparable to 'true' scientific research and the absence of internal and external controls (Cohen & Manion, 1980; Merriam & Simpson, 1984). While these concerns may apply to large scale inquiries which aim to generate new theory, they are not relevant to this research because it has a limited scope.

The current research will apply the mindset and techniques of action research to a case study approach. This research is considered a multiple case design, holistic analysis as it examines multiple cases but is limited to one unit of inquiry (Wilson, 2013). As the specific area for analysis—the promotion of ethically certified goods—is small, multiple cases will be used to generate more robust results. This approach is dissimilar to a single case design, which, for

example, might examine one online grocery store in depth in its entirety. Multiple researchers have employed case studies to examine online purchase environments (O'Brien, 2010; Almarashdeh et al, 2019), but often this research also includes human participants, which was not possible due to COVID-19 (see 3.5 *Limitations*).

3.4.1 Data Collection

The data was collected from seven grocery chains which operate in the United Kingdom which together possess over 87% of market share; no single company examined possesses less than 5% of market share (Sweney, 2019). These grocery chains were selected as a representative sample of the services available in the UK in order to provide external validity allowing the research to be generalized to other cases or settings. This research intentionally did not collect data from exclusively online grocery stores, which have increased in popularity recently, as they do not operate as widely as the chosen chains.

In order to minimize the potential effects of current events across different websites, the data was collected in a limited time frame between 13 and 15 July 2020. It was collected in the form of screenshots to be later analysed. While a limited time frame for data collection may minimize the effects of current events in collecting data from different platforms, the research as a whole is coloured by the COVID-19 pandemic (see *Limitations*).

The research examines browse (navigating through 'virtual departments') and search tools, as well as individual product pages. These functions are examined as research found that 95% of online grocery shopping users browse and 80% used search (Benn et al, 2015). On each site using the browse functionality, the researcher navigated to the packaged snacks aisle. On each site using the search function, the researcher searched for five terms: 'apple', 'cracker', 'chocolate', 'milk', and 'coffee'. These terms are both diverse and widely available in both conventional products and ethically certified alternatives. Similar to Arvola and colleagues' (2008) analysis which used organic apples and organic ready-to-cook pizza to test purchase intentions, the selected items vary in the extent they are processed, with apples representing the least processed item. The variation is intended to account for a possible incongruence between high levels of food processing and the concept of organic (or Fairtrade food) (Arvola et al, 2008). As in Bird and Hughes (1997) study of Fairtrade consumption, coffee represents an indicative Fairtrade commodity. Coffee was the first product within the Fairtrade certification model and is currently the most recognized product in the Fairtrade range (Fairtrade, 2016). Chocolate was selected as a secondary Fairtrade commodity as it is quickly growing in sales (Fairtrade, 2016). Milk and crackers complete the term selection

as they are commonly considered typical household staples. The researcher will capture the product pages for a conventional and ethically certified product (if one exists) within each of the above categories.

3.4.2 Data Analysis

In order to be analyzed, the screenshots of each grocery website will be organized into a flow to represent how the researcher experienced each page. The data will be analyzed using qualitative content analysis and thematic analysis. Both of these techniques examine narrative materials, with a human-centric philosophy which allows the researcher to focus on perspectives and experiences (Vaismoradi & Snelgrove, 2019). The combination of using two data analysis techniques allows for themes—the basis of qualitative research—not only to be identified, but also contextually examined (Sandelowski & Leeman, 2012).

The first step of data analysis will require each screenshot to be analyzed to determine if nudging techniques are used. Subsequently each page of the site will be coded based on if (and, if present, what) nudging techniques are used (Table 3).

Table 3 Nudges in an ecommerce environment.

Nudge	Description	Example in ecommerce
Incentives	Providing benefits to encourage behaviours	Discounts on products (either conventional or ethically labelled)
Understand mappings ¹	Helping individuals understand the impact of a choice on one's welfare	Improving the comprehensibility of product values (i.e. ethical qualities) that may be important to consumers;
Defaults	Preselecting an automatic choice if no intervention is taken	The first option in a search
Give feedback	Providing users with feedback to encourage or change behaviour	Asking a consumer to confirm their product selection choice
Expect error	Accounting for mistakes that individuals may make	Correcting a typo in a search term to suggest relevant results
Structure complex choices	Providing details which allow for products to be compared	Clearly stating product values (either conventional or ethically labelled)

¹ Mappings are the relationship between choice and welfare.

The visual elements of the data analysis require identifying the symbols associated with the ethical certification schemes (Figure 6, following page). The screenshots gathered during the

data collection process will be examined to identify the presence and prominence of these logos and/or associated terms.



Figure 6 Ethical certification scheme logos.

The coding of the nudging techniques and visual elements constitutes qualitative content analysis. Coding enables quantitative analysis to determine the frequency with which certain key things occur, in order to identify trends (Wilson, 2013). This will allow for comparisons to be made between the different online grocery stores (Vaismoradi & Snelgrove, 2019). While qualitative content analysis provides a broad overview of trends in the data, thematic analysis allows for a higher level of interpretation and meaning of trends, extending beyond the description and identification of qualitative content analysis.

3.5 Limitations

This research was significantly impacted by the Coronavirus Disease 2019 (COVID-19) pandemic. The British government's lockdown order on 23 March 2020 required that individuals and families stay in their homes and restricted shopping for necessities to as infrequently as possible (Gov.uk, 2020). The three-stage strategy to recover from the lockdown was laid in parliament on 11 May 2020. As of the time of this writing, some COVID-19 restrictions are still in place. It can be assumed that the COVID-19 pandemic has substantial effects on consumer behaviour, exemplified by the culture of hoarding that was prominent at the beginning of the lockdown (Preston, 2020). As the pandemic and its effects are ongoing, there is limited published academic literature on the consumer effects (see Loxton et al, 2020; Kotler, 2020). The literature that has emerged by August 2020 does not explore the impact of the coronavirus on ethical consumption.

Additionally, COVID-19 limited the possibility for human interaction based research, both from a logistical and ethical standpoint. Choice architecture has traditionally been studied in physical settings, challenging this research to adapt theories and nudges for a digital space.

Additionally, had this research been undertaken at a different point of time, research participants either in a focus group or interview setting would have been used to identify the relationships between online grocery stores, ethically certified goods and actual consumer behaviour.

The current research was unable to confirm the effects of the sites choice architecture on actual consumers—both their perceptions and purchase behaviour—due to the type of research that was conducted. Furthermore, historical purchase data to understand consumer interaction with ethical certification schemes was not available to the researcher at the time of writing. As such, the recommendations suggested herein (see *5 Recommendations*) are rooted in pre-existing nudging effects and would require further study to confirm their effectiveness at changing consumer behaviour in an online grocery shopping setting. Observational research using technologies such as eye-tracking has been previously used to understand consumer behaviour while online shopping and could be employed to test the effects of the recommendations (Janseen & Hamm, 2012; Anesbury, 2016).

4 Findings & Discussion

This section will present and discuss the findings of the current research. The research will be framed by a selection of Thaler and Sunstein's nudges (2008), previously outlined in Table 3. The findings can be aligned to four of the six total pre-defined nudges: defaults, structure complex choices, mapping welfare, and incentives. The remaining two nudges, 'give feedback' and 'expect error', are less relevant to the sale of ethically certified goods in an online grocery environment, and therefore will not be used.

The purpose of this research was to identify if any nudges were present and how they promote the purchase of ethically certified goods. As the following findings show, ethically certified products are not consistently promoted by online grocery stores. Of the two ethical certification schemes that were chosen for analysis, organic was the most prevalent in all product categories, while Fairtrade was common only for chocolate and coffee.

4.1 Defaults

A default, considered a primary building block of choice architecture, refers to the automatic response if no action is taken (Goldstein et al, 2008; Thaler, 2009). In the context of the online grocery stores, a default can be considered the first result, or line of results in a search query. An online shopping experience constrains information search, forcing a reliance on search results (Rowley, 2000). The reliance on product search is compounded by the likelihood that consumers click on the first few results in a search (Su et al, 2018). Additionally, personalization can be used to manipulate the order of product search results and affect the 'default' (see section 5.2.2 Dietary Profiles & Filters).

In assessing the product search results for a variety of products in online grocery stores, the current research finds that the defaults are consistently a conventional product. Table 4 (following page) shows the prevalence of ethically certified products in product search results across sites. The counts were conducted by identifying how many products on the first page that automatically loads are ethically certified.

Table 4 Prevalence of ethically certified products out of total products in search results (for the first page of search results that loaded).

Online Grocery Store

Search Term	A	B	C	D	E	F	G
Apples	3/34 ¹ 8.8%	0/24 0%	4/24 16.7%	1/14 7.1%	2/16 12.5%	0/20 0%	0/12 0%
Crackers	1/36 2.8%	0/24 0%	1/24 4.1%	0/28 0%	0/16 0%	0/30 0%	0/12 0%
Milk	11/36 30.5%	3/24 12.5%	3/22 13.6%	3/28 10.7%	2/16 12.5%	2/30 6.7%	0/9 ³ 0%
Coffee	3/20 15%	0/24 0%	3/22 13.6%	0/28 0%	3/16 18.8%	0/28 0%	0/10 0%
Chocolate	11/33 ² 33.3%	0/24 0%	2/22 9.1%	0/28 0%	0/16 0%	1/39 2.6%	0/12 0%

¹ Reference to organic characteristic exclusively in image and not in item title.

² Promotion on one brand of organic/Fairtrade chocolate may affect the rankings.

³ Search for 'milk' automatically directs to 'Milk, Eggs, and Butter'. The count only considered milk/non-dairy alternative milk products.

This demonstrates that fresh products, such as apples and milk, feature ethically certified products more prominently in the search rank. In the case of apples and milk, the products were identified as organic in either the packaging that was pictured or in the item title. In contrast, ethically certified crackers were not prominently featured. This aligns with previous findings by Arvola and colleagues (2008) that fresh foods are more commonly promoted with ethical certifications such as organic. Due to the prominence of Fairtrade for both chocolate and coffee, the search results for these products also featured ethically certified goods.

Despite the availability of ethically certified products, these products often appear lower in search rank. The order in which products appear in a search can be determined by multiple factors and may also be manipulated by a firm. Typically, the search results appear in a default order called 'relevance', but can alternatively be sorted by price. While previous research has been conducted to determine factors which affect the 'relevance' sort structure, each website can alter their algorithm (Ghose et al, 2014; Hannak et al, 2014). Additionally, online grocery stores promote specific products and brands, either through pop-up graphics on the screen or by giving a sponsored product prime placement in search result order (Figure 7). In these cases, consumer protection regulations require that the sponsored product placement be identified as such. Similarly, products with special pricing can be given prime positioning, similarly to the way in which product specials are promoted in store.

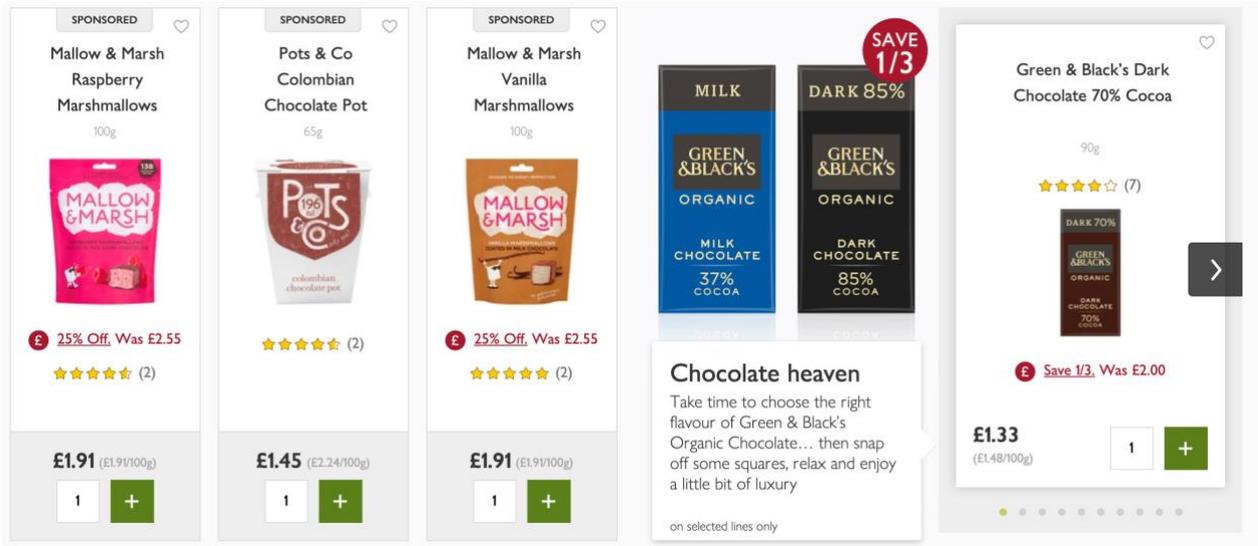


Figure 7 Example of search result ranking manipulation.

The current research was unable to determine if manipulation of search result order proportionately affects conventional products and ethically certified products. At the time of data collection, promotional efforts across the sites featured both conventional and ethically certified products. As sort order is already subject to influence by a firm, inserting a nudge to encourage purchase of ethically sorted goods is feasible.

4.2 Structure Complex Choices

4.2.1 Visual Cues

The nudge which Thaler & Sunstein (2008) coined as ‘structure complex choices’, refers to the actions and elements which increase consumers' knowledge of factors which may allow them to assess and compare options.

In the online grocery shopping environment, choices can be structured both in the product search page and the product page. Figure 8 identifies the elements of a product listing which may be used to identify an ethical product dimension.

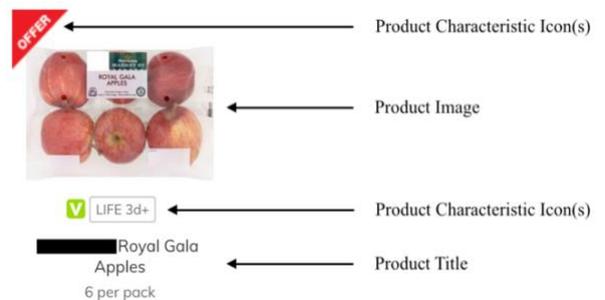


Figure 8 Anatomy of a product listing in search results.

Some firms used small icons to identify product characteristics in the search results (Figure 9). The visual cues allow for consumers to quickly compare products, including ethical certifications. Icons are

used in some capacity on all of the sites that were examined, but they were most commonly used to indicate a special price rather than an ethical product dimension. Icons are also commonly used to identify products that conform to common restricted diets, such as vegetarian.



Figure 9 Online grocery store using icons to identify product qualities.

Without the icons, consumers must refer either to the item title or, in some cases, the small image of the product packaging. It was common that ethically certified products were identified only in the title, for example a conventional product may be titled ‘British Semi-Skimmed Milk, 1 Litre’ and an organic product may be titled ‘British Semi-Skimmed Milk, Organic, 1 Litre’. In some cases, such as Figure 10, an ethically certified product was not clearly marked, forcing the consumer to rely on the small product image or their existing knowledge to identify an ethical product dimension. In contrast to the clearly marked items pictured in Figure 3, unmarked items make it difficult for consumers to identify ethical products.

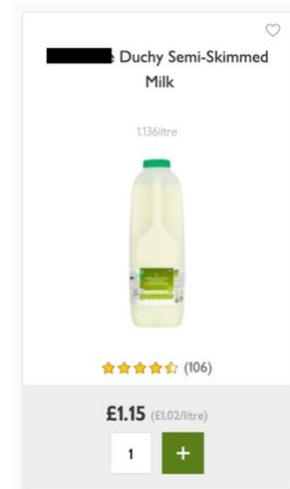


Figure 10 Poorly marked ethically certified product.

Research by Janseen and Hamm (2012) found that few consumers trust generic labelling which uses the term ‘organic’ without a certification logo, despite regulations that restrict the use of the term to the same requirements which govern the use of the seal or logo (Gov.uk, 2016). In testing the various certification logos, Janseen and Hamm found that willingness to pay was significantly higher than generic use of the word ‘organic’. They also found that a fake certification label received the same response as official certification labels (Janseen & Hamm, 2012). As such, the use of an icon or logo to identify an ethical product dimension may be more effective than using generic terms.

The current research did not analyse purchase data, and therefore cannot make summative statements regarding the influence of either of these styles of presenting information on actual

purchase behaviours. The method of clearly identifying product characteristics does align with the principles of nudging.

4.2.2 Dietary Profiles & Filters

All but one of the online grocery stores examined allow for consumers to filter the products, in both browse and search functions. Most of the filters regarded dietary restrictions, rather than ethical considerations. Three out of the seven websites which were examined allowed users to restrict their search to organic products, while only one allowed users to restrict to Fairtrade products (if the search had already returned results within that category).

Rather than filter results while searching or browsing, which requires a user to locate and implement the filter, one of the examined online grocery stores allowed for consumers to add a proactive dietary profile to their account. Once the preferences are set up, the online grocery store flags any products that do not align with that profile (Figure 11). While the intention and current functionality of this option is to assist with food allergies and intolerances, profiles could easily be expanded to account for ethical preferences.

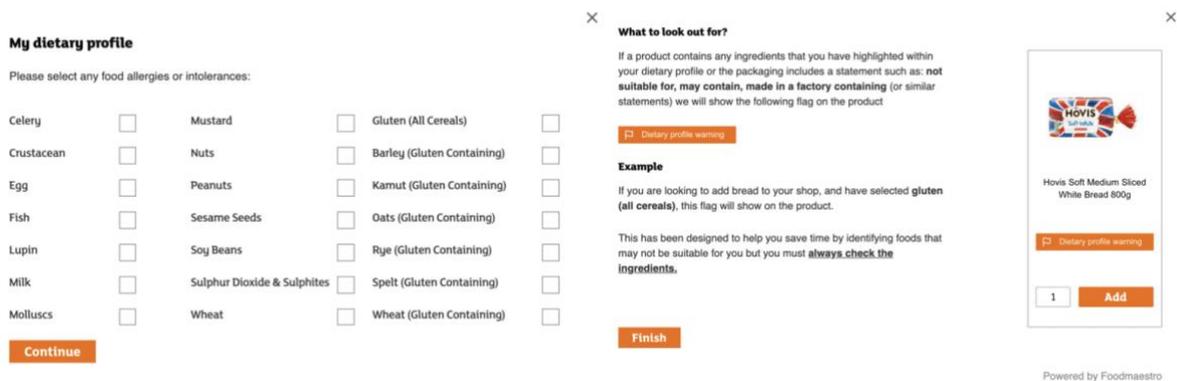


Figure 11 Dietary profile set up and explanation of functionality.

Using proactive consumer profiles for ethical product dimensions would structure complex choices, while also applying a default nudge for consumers who set up a profile. The default nudge could be compounded if organic and Fairtrade preference require an opt-out rather than an opt-in, but this may express too much bias on account of the grocery store. Additionally, the wider public's perceptions of organic may not yet be at that point.

4.3 Understanding Mappings

Mappings are the causal relationships between an individual's choice and that individual's welfare (Thaler & Sunstein, 2008). When an individual makes a choice, they are considering many different factors in a moment to assess how their choice may impact their welfare. Thaler and Sunstein (2008) use the example of picking an ice-cream flavour in *Nudge*. If flavour is the sole variable, pretending that all ice-cream flavours have equal nutritional content and prices, an individual will often pick a flavour that is familiar to them, as they know that they will enjoy it. In order to encourage consumers to try new flavours, ice cream shops offer samples. The basic principle, under which this insight can be applied, is to help consumers limit the potential negative effects of a choice, in this example, that would be disliking the flavour. Mapping encourages firms to clearly state the benefits of their product to an individual's welfare. In the current research, a few instances of mappings were identified.

Understanding and formulating mappings can be a useful tool to close the attitude-behaviour gap for ethical food consumption. In the case of organic milk consumption, many consumers consider the benefits to the welfare of the animal, which can be addressed in a product description to remind consumers of the benefits of an organic purchase. Firm B used the description on a product page to address these welfare benefits:

'We partner with carefully selected British farms, where cows are free to graze on grass rich pastures, rooted in organic certified soils and untreated with any pesticides. The farmers we work with are organic certified and take pride in the quality of milk they produced and great care of their dairy herds.'

In the case of ethical consumption, welfare mappings are made more complex as the benefits of consuming ethically certified goods are abstract, often benefiting other parties rather than the consumer themselves. As such, mappings may be used to close the attitude-behaviour gap for consumers who chose ethical products as an expression of their perceived responsibility to society (Barnett et al, 2005; Vermier & Verbeke, 2006).

As in the case of confirming the efficacy of using icons to structure complex choices, the current research lacks the data to confirm if the mappings found in the data ultimately affect purchase behaviours. Further research is needed to understand the effect of mappings on consumer behaviour.

4.4 Incentives

Incentives are a commonly used nudge, which influence users by providing benefits to one or more choice options. When relevant to the consumer motivations, such as grocery shopping, incentives frequently take the form of a financial discount. As ethically certified products have a price premium, incentives can be a valuable nudge to close the attitude-behaviour gap.

The current research identified that when one popular organic and Fairtrade chocolate brand had a price discount, the frequency of ethically certified products in the search results was significantly higher than other sites without a price discount (Table X). Across all of the sites which were examined, both ethically certified and conventional products with a financial incentive were more prevalent in search results.

Table 5 Effect of incentives on ethically certified product search prevalence.

Incentive	No Incentive					
A	B	C	D	E	F	G
11/33 33.3%	0/24 0%	2/22 9.1%	0/28 0%	0/16 0%	1/39 2.6%	0/12 0%

Given the price premium of ethically certified goods, incentives may be an effective tool to encourage consumers to ultimately choose an ethically certified product over a conventional one. Building upon the previously discussed nudge of mapping choice to welfare, if the variable of price is minimized, the choice for the consumer is simplified and the ethical dimension of a product may have more influence.

4.5 Summary of Findings

In summary, the current research found that the majority of choice architecture of online grocery stores is incongruous with the promotion of ethically certified goods. The analysis found elements of some sites which could be further aligned to Thaler and Sunstein's (2008) nudges to influence behaviour change, such as visual cues, dietary profiles, detailed information, and price-based incentives.

The findings of the current research suggest that the promotion of ethically certified goods is not a priority for online grocery stores. As such, the limited promotion of ethically certified products was often related to special deals on such goods (price-based incentives). Similarly, products with heightened consumer awareness of ethical implications of production, such as produce or commonly Fairtrade certified goods, were most influenced by any existing nudges.

This is likely due to online grocery stores adapting to popular consumer preferences. Additionally, organic was the most commonly referred to certification scheme, although the term was frequently used without a formal certification such as a logo or seal.

5 Recommendations

As the current research found grocery stores to be lacking in nudges that promote ethical consumption behaviour, there are many opportunities for improvement. Both online grocery stores and certifications schemes have influence over the promotion of ethically certified goods which may help close the attitude-behaviour gap. As such, the following chapter will make distinct recommendations for online grocery stores and certification schemes based on the findings of the current research, followed by recommendations for future research.

It is critical to reiterate the fallacy of neutral choice architecture. All choice architecture is subject to influence by its designer, regardless of if that influence is conscious or not. As previously stated, the following recommendations are intended to minimise the attitude-behaviour gap, encouraging ethical behaviours from consumers who have *pre-existing* intentions to act ethically, thus minimizing undue paternalistic influence. These recommendations are not suggesting that firms should nudge *all* consumers towards ethically certified products, rather maximise a firm's engagement with ethically conscious consumers to nudge them towards the products that they intend to purchase.

5.1 Online Grocery Stores

While the motivations of a firm to encourage ethical consumption behaviour are complex, previous research has determined that consumers are more likely to patronise firms that they perceive as socially responsible (Charter, 1992). It is imperative to note that grocery stores are businesses which operate to maximise profits, and therefore strategies to encourage ethical consumption cannot compromise on profits if they are to be useful. Future research is needed to compare the profit margins of conventional and ethically certified products, which may affect the following recommendations.

Taking into consideration the findings of the current and previous research, the following recommendations are suggested: virtual aisles for ethically certified products, consumer dietary profiles that include ethical preferences, offering incentives on ethically certified products, developing a rewards system, and using icons to symbolize ethical characteristics in product lists.

The development of virtual aisles specifically for ethically certified products would take into account consumers' tendencies to browse, making the choice architecture conducive to ethical consumption. Browsing is the most popular feature of an online grocery store, with 95% of online grocery shopping users browse, compared to 80% who used a search (Benn et al, 2015). Similarly,

68% of participants in their study browsed special offer pages, creating an additional opportunity for a distinct virtual aisle for ethically certified products (Ibid). Additionally, creating an aisle specifically for ethically certified goods would minimise the effects of the framing effect, which may highlight the price premium of ethically certified goods compared to conventional goods.

The dietary profile functionality on one site that was identified in the findings suggests a wider opportunity for all online grocery stores. While the site examined exclusively used the dietary profiles for ingredient related restrictions, dietary profiles could be adapted to include ethical preferences. The creation of dietary profiles with ethical dimensions would allow for three nudges to be utilised: *defaults*, *give feedback* and *expect error*. If a consumer has a dietary profile set up, their product sort order when they search and browse could reflect their personal preferences. As such, the default product would be ethically certified. Additionally, the website could warn consumers, using an icon or a pop-up, if they have selected a product that does not match the preferences in their profiles, thus giving feedback to encourage behaviour change (Figure 12). A feedback nudge could also be used to reward consumers for ethical purchases. Furthermore, dietary profiles could track historical purchase data to understand consumers purchase behaviour and frequency. This data could be used before the user places their order to suggest items that are not in the cart due to human forgetfulness (the ‘error’), but are commonly purchased by that consumer.



Figure 12 Mock-up of feedback nudge using profile matching, holding price constant (author's own illustration).

Incentives encompass more than just benefits of a particular behaviour, but rather require the consideration of motivations for a particular behaviour (Thaler & Sunstein, 2008). While a price cut incentive which offers the consumer the benefit of saving money may be effective, it is not a sustainable long-term strategy to encourage behaviour change. In order to use the incentives nudge, any conflicts of motivation between stakeholders must be acknowledged (Thaler &

Sunstein, 2008). Online grocery stores are motivated by profits, while certification schemes may be motivated by benefitting society and/or protecting the environment. Consumers are complex in that they are motivated to feed themselves, but must balance that primary motivation with ethical considerations. As such, it is helpful to recall the common motivations of ethical consumption, notably social consciousness and ethical obligation. Consumers may be incentivised to purchase ethically certified goods if the benefits of those purchases are made clear. Online grocery stores and certification schemes could partner to communicate the benefits of ethical purchases through interventions (pop-ups or display graphics) in the purchase environment. While grocery stores are primarily motivated by profits, they also benefit from the perception of social and environmental responsibility, particularly as this becomes a priority for consumers (Baker, 2015).

While the current research found that icons are commonly used in product lists, they must be more detailed and consistent in order to encourage ethical consumption decisions. If executed successfully, icons can be effective for structuring complex choices and mapping. While a simple purchase decision may not be considered complex, structure allows for consumers to compare between products and make informed decisions. Icons have been found to communicate ethical product dimensions more effectively than words and allow consumers to quickly compare product characteristics visually (Janseen & Hamm, 2012). As lacking knowledge and misleading information contribute to the attitude-behaviour gap, consumers may benefit from a feature which explains or expands upon the icon, such as a hover-over detail (Figure 13). The hover over feature would allow the user to find more information that cannot be represented in a small icon. Furthermore, explaining benefits of ethical products allows for consumers to map the relationship of their choices to their welfare. This may be introduced through icons, but may require more written detail in the product description.

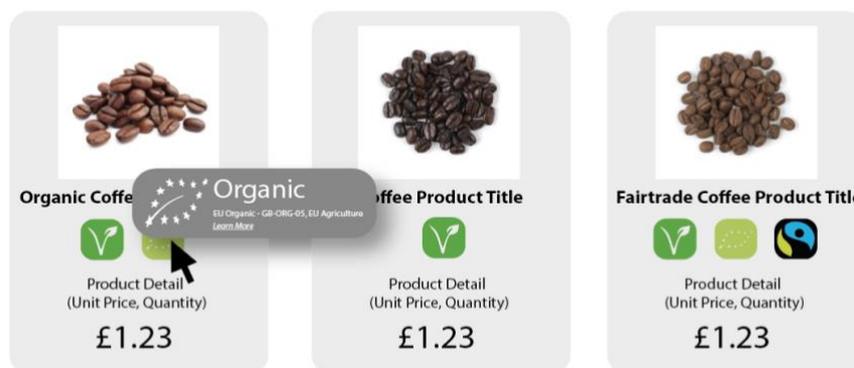


Figure 13 Mock-up of products labelled with ethical certification icons and a detailed hover-over, holding price constant (author's own illustration).

5.2 Certification Schemes

While they have less control over the choice architecture which can close the attitude-behaviour gap, certification schemes can still play a role in encouraging the purchase of ethically certified products. As previously discussed, icons could be employed to assist with communicating information which allows for comparison of products. Certification schemes must take responsibility for streamlining a logo or graphic which can be scaled down to use in a small format and that can be used consistently across different stores and sites. For example, the Fairtrade logo is legible at a small scale and is used both on packaging, websites and Fairtrade promotional material (Fairtrade, n.d.). Dissimilarly, the graphic used by the certifying EU organic body does not scale down well, forcing online grocery stores to create their own icon. While this still communicates the product characteristic (Janseen & Hamm, 2012), it makes it challenging for consumers to compare products across different sites. Furthermore, certification schemes could work with grocery stores, both online and in-person, to promote the meaning and importance of ethical certification schemes.

5.3 Future Research

As the current research did not account for consumer behaviour interactions with the online grocery stores or the suggested nudges, future research is needed. Based on current research, an effective follow-up study would test if the aforementioned nudges are effective in encouraging consumption of ethically certified products in an online grocery store.

Future research would also be valuable in the broader realm of ecommerce and ethical consumption. One potential avenue for future research is analysing the effectiveness of nudging in a digital shopping environment. Utilising modern technologies, such as eye tracking, future technology may be able to understand specifically how users interact with choice architecture. Additionally, future research is needed to understand consumer priorities for ethical purchases.

6 Conclusion

In the first eight months of 2020, the shocks of the COVID-19 pandemic and social justice atrocities have ripples through society, widely shifting the status quo of consumption. In mandating that citizens stay home, the COVID-19 lockdown accelerated pre-existing trends in the move towards online consumption. This was particularly relevant with online grocery shopping, given the risks of physically shopping in a populated grocery store. The strife of COVID-19 has been paired with social issues, such as Black Lives Matter, and political turmoil globally. Together, these factors contribute to the rise of consumer activism, an important facet of ethical consumption in which consumers support causes through targeted purchases. While academic research has not studied the impacts of these events on ethical consumption, it is highly likely that the attitude-behaviour gap remains pertinent. As such, it is as critical as ever to understand how firms can help ethical consumers fulfil their ethical intentions.

This paper introduced ethical consumption and nudging, unifying these concept in research which aims to understand how they can harmonise to close the attitude-behaviour gap. The existing literature suggests that adapting the choice architecture to facilitate nudging may close the attitude-behaviour gap by facilitating ethical purchase behaviour from consumers with existing ethical attitudes.

The current research examined the choice architecture of seven online grocery stores in the United Kingdom to assess the presence of any nudges that may promote or restrict the purchase of ethically certified goods. The ethical certification schemes in this study—organic and Fairtrade—create a system for both firms and consumers to easily understand and communicate ethical product dimensions. The research found that the choice architecture of online grocery stores did not align with nudging principles to promote ethically certified goods, often even challenging a consumer who actively searched for such products. As such, recommendations were made to introduce nudges into the choice architecture of online grocery stores, including virtual aisles for ethically certified products, consumer dietary profiles that include ethical preferences, offering incentives on ethically certified products, developing a rewards system, and using icons to symbolize ethical characteristics in product lists. While future research is needed to test the effectiveness of these nudges in an online purchase environment, these recommendation are supported by the existing nudging literature.

As such, online grocery stores, certification schemes, and consumers can create an mutually beneficial online shopping environment, helping consumers to act upon their ethical beliefs and priorities. While the focus of this report has centred around online grocery stores and

ethical food consumption, the findings may not be limited to online grocery shopping. This report suggests a wider correlation between the attitude-behaviour gap and choice architecture which could shape the landscape of ethical consumption. With carefully crafted nudges, the choice architecture of online stores can be constructed to facilitate ethical purchases from ethical consumers, thus closing the attitude-behaviour gap.

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