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An exploratory study into purchase behaviours towards fresh fruit and vegetables of Irish consumers with specific focus on the environmental impact of their packaging.

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Abstract

Packaging on food and beverage products has been put under the spotlight in recent years due to a massive media and public interest about its environmental impact. Harrowing footage shown on nature documentaries and a greater concern of climate change has made many consumers voice their opinions and demand changes from retailers and manufacturers. However, previous research on the green consumer makes us aware of the concern-behaviour gap, where ethical intentions don't always translate into the same ethical purchase behaviours.

The purpose of this study is to explore if the latest unprecedented public climate of environmental concern has shifted to a new level where the concern behaviour gap is narrowed and greater action is taken by consumers in context of their purchase behaviours.

The impact of Irish consumers' attitudes towards food waste is also explored as this is heavily linked to food packaging.

Qualitative research was undertaken through six semi-structured interviews to gain rich insights and opinions into their purchasing habits and how their thoughts on environmental concerns effected them.

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Chapter 1: Introduction

‘Single use’ was named as the Collins Dictionary word of the year for 2018 (Flood, 2018). This is the term applied to products made to be used once and disposed of which have come under severe media and public scrutiny due to various environmental exposures. For such a phrase to be elevated to such status exemplifies the new rise of concern among the general public of excess waste and its impact on our environment. This massive shift in public and media environmental concern has already resulted in a backlash on many organisations to show more urgency that they are acting more upon it, whether it be from eliminating ‘single use’ plastics, to introducing compostable coffee cups (Buranyi 2018). Consumers are seeking out new ways to act in an ethical manner in many purchase decisions (Herbes et al., 2018 and Koutsimanis, G. et al. 2012) and this study is focused on their choice of fresh fruit and vegetables with regards it’s packaging.

1.1 Timeframe of public environmental concern

Public environmental concern has grown steadily over the past number of decades, as issues like ozone depletion and global warming became entrenched into the public conscious in the 70s and 80s. The issue with CFCs was assumed to be tackled and these were phased out of production, but consumption in general was kept at the fore. The global economy was on an upward tilt and the loudest green agenda was that of money. With the advent of massive growing technology companies in the late 1990s and 2000s, we saw a huge surge of investments and money flowing around the world like never before. However, by late 2007 a banking crisis brought many global economies to their knees. Ireland was hit very hard and suffered thousands of job losses and our national debt spiralled out of control, leading on to a bail out by the International Monetary Fund. Prothero et al. (2010) posit that this global downturn signalled the end of the ‘greed is good’ mantra, which was a recognition that consumption itself doesn’t make you happy. Before the crash, many ordinary members of the public had placed huge faith in financial institutions and especially banks. As stock prices, and indeed their reputations, plummeted to record lows we began to become more sceptical of big

business and the impact such corporate greed had on our daily lives. The authors also note that mainstream media now write regularly about environmental issues and terms such as climate change and carbon footprint have become part of our daily language.

From this, the public started to re-evaluate what's important. In Ireland, we saw a huge uptake in outdoor sports, like running and cycling, so perhaps these made the public more conscious of our environment and the land we live in.

The Summer of 2018 in Ireland was one of the hottest and driest in decades (Goodbody, 2018) which would have given the Irish public a greater wakeup-call on environmental concern and this study hope to explore if Irish consumer purchasing behaviour has changed because of this.

1.2 The 'war on plastic'

The backlash against unsustainable packaging like plastic can possible be traced by to the last episode of BBC's award winning environmental documentary 'Blue Planet II' which aired in December 2017. Narrated by Sir David Attenborough, the episode contained a 6-minute section dedicated to show the audience the impact of plastic waste on sea life. The images that followed, from turtles in distress to an albatross dead from plastic shards caught in her throat, had a profound impact on the audience. "It was the biggest reaction to anything in the whole series" noted the head of commissioning at the BBC (Buranyi, 2018). For some reason, these images resonated with the public more than ever before and the backlash against plastics really took hold. Since that broadcast and up to the point of this study, many changes in public opinion and behaviour in plastic uses has been coined as influenced by the 'Attenborough effect' (Gleeson, 2019).

Just over a decade earlier, seeds of doubt had already been planted due to ex US Vice President Al Gore's Oscar winning documentary film 'An Inconvenient Truth' from 2006 which laid bare the damage being done to the earth and the impending catastrophe of climate change. Since then, we have witnessed many major natural weather events which could possibly be linked to global warming due to our over consumption of the earth's natural resources and our use of plastics have become one of the top targets for many environmental groups.

For years, China was the plastics dumping ground for so many Western nations, but it finally called a halt to this practice in 2018. Up to 97% of plastic used in Ireland went to China because due to our lack of recycling facilities here (O’Sullivan, 2018). This has put additional pressure on those involved in waste management, and ultimately on consumers as our relationship with plastic changes.

The above has made much media coverage in Ireland over the past couple of years and it’s been at the focus of much public debate.

1.3 Plastic packaging – it’s use and reuse

Despite this apparent public swell of opinion, the benefits of packaging, and especially plastic packaging cannot be denied. It gives the consumers great levels of convenience while doing its core job of protecting the product (Rundh, 2005).

While consumers may have assumed that all plastics are recyclable and a large proportion are then recycled, this is far from the reality. Recent figures show that only an estimated 42% of plastic packaging waste in the European Union is recycled, with Ireland lagging well behind with only 31%. The global figures are even more concerning as only 9% of global plastic is recycled (Geyer et al. 2017). The global media latched on to an inconceivable report that there ‘could be more plastic in the sea than fish’ (Hornak, 2016) stoking the concern even further.

Consumers need to act now before it was too late.

Prior to this, Van Birgelen et al. (2009) discovered from their research that consumers were willing to choose environmentally friendly packaged products, so long as the key attributes of price and taste were met. However, the importance of the attribute of taste may prove less important in a competitive aspect of certain foodstuffs like fruit and vegetables where competitive branding is less of a purchase influencer.

Earlier research had shown that one-third of consumers favoured environmentally labelled packaging as an important criterion in their choice for a product (Rokka et al. 2008). Both these key journals show the appetite is there for a more environmental approach towards packaging, but the industry appears slow to move due to the benefits various packaging materials provide and perhaps unknown impact on consumer purchasing behaviour.

This research will seek to examine Irish consumer attitudes towards food and beverage packaging with regards impact to the environment. Have Irish consumers purchase decision changed in recent years following the above mentioned concerns regarding the state of our environment? Are they willing to react differently and perhaps reduce the plastic packaging in their daily purchased food items?

Reducing and elimination of packaging, and specifically over packaging, may be seen as the ethical decision by consumers, but food waste must be considered as this also can have a huge environmental impact and can be prevented by the right packaging. This researcher believes research in this area in Ireland carries even greater weight than other counties.

Ireland was the first country in the world to introduce a pioneering plastic bag tax in March of 2002 (0.15c per bag). The tax is attributed to having reduced the number of plastic bags in the retail stream by 94%, and a notable improvement in litter statistics – whereby they accounted for 5% prior to the levy, and then to .22% just 2 years after it was introduced (Convery et al. 2007). The world took note, and many nations have either also introduced a similar charge, or outright banned plastic bags as seen in France and many African countries (McCarthy, 2018). Consumers on our ‘green isle’ have shown a record of changing their behaviour for the benefit of the environment before.

This research will either enforce the thinking that Irish consumers are willing to forego a lot of packaging waste on fresh fruit and vegetables or that perhaps legislation is required, which may be publicly backed.

Would the Irish consumer be in favour of the government introducing legislation to force suppliers and retailers to reduce the amount of packaging on fresh fruit and vegetables? With stories of further ecological disasters predicted in the media on a more frequent basis, something needs to change.

The author hopes to investigate if Irish consumers may help lead the way once again.

Chapter 2: Literature Review

2.1 Introduction

This literary review is split into 5 sections main section.

The first is a brief introduction on the use of packaging for food products. The next section reviews the body of literature regarding the concern-behaviour gap on sustainable packaging, followed by a review of the literature on consumers' knowledge of what they understand by sustainable packaging.

The last 2 sections cover the area of food waste and the gaps in existing literature that this study will aim to address.

2.2 Packaging for food products

Packaging used in the food and beverage industry plays an important role, not only as a marketing tool, but especially to protect the product as it will be directly consumed. Rundh (2005) notes packaging can provide more benefits such as promoting choice, facilitating distribution and also to provide convenience to the consumer. Convenience in this case would be the product split into single or multi serving portions like 'snack packs' which have been embraced by many producers and been welcomed by customers to assist in their busy lives as we eat more frequently on the go. This hectic and time pressed lifestyle to modern consumer experiences is referred to by many others, like Koutsimanis et al, (2012) and Ragaert, P. et al. (2004).

Rundh (2005) also points out that packaging can be the first encounter a consumer has with a brand, however once the product has been consumed it is the packaging that remains in the customer's hands which can also influence their attitudes towards the brand. More recent research notes than consumers are paying more attention to the environmental impact of their consumption, especially packaging and its inconvenience (Herbes et al. 2018), but this being the inconvenience on the environment and not the consumer.

2.3 The concern-behaviour gap for sustainable packaging and environmental concern

The majority of research based around packaging and environment impact all acknowledge that consumers are concerned about the environment and that packaging waste poses massive environmental problems (Schwepker et al. 1991), although Van Birgelen et al. (2009) argues that eco consumers are actually in the minority. This would appear contradictory, but can be better explained by the ‘concern-behaviour gap’. The authors in their research noted that consumers for a beverage drink were willing to trade off various product attributes in favour of environmentally friendly packaging, except for taste and price, However, in open ended questioning during their research, consumers said they would be willing to pay a price premium for eco packaging.

This phenomenon was also referenced by Martinho et al. (2015) and Rokka and Uusitalo (2008) in their work that noted even those green consumers with the most environmentally friendly consciousness do not choose products based solely on their environmental merits, and note that similar to Van Birgelen et al. (2009), that a trade-off between various attributes is made. As mentioned in the introduction, their research had shown that one-third of consumers, favoured environmentally labelled packaging as an important criterion in their choice for a product, however the purchase intention doesn’t follow through as expected.

If a consumer sees that the majority of other consumers avoid buying non-recyclables or over packaged, the consumer is more likely to adopt that kind of behaviour. Similarly, Monnot et al. (2017) noted that industry norms of continued use of over packing and the use of non-environmentally friendly packaging not only shapes manufacturers decisions, but consumers also. One or a few brands may be unwilling to invest in change and consumers then also. The recent media coverage of climate and environment issues, however, has brought huge attention and knowledge to consumers around the world, so the time for change could be here, and this study hopes to explore this further. Schwepker at al. (1991) notes that those who don’t usually consider environmentally friendly attributes could be changed as they are made aware of the issues, which deserves further investigation given that current spotlight on environmental damage.

As previously noted by Van Birgelen et al. (2009) where consumer said they would be willing to pay a price premium for eco packaging, Klaiman et al. (2016) noted in their research that consumers have a higher willingness to pay for products that are packaged in the following materials: plastics, aluminium, glass and cardboard, with a higher price for plastics, reducing down to cardboard. It is assumed that this is due to which are more harmful to the environment and that the consumer expects a further cost to be burdened as they will be recycled after use. However, as already pointed out in the introduction, only an estimated 42% of EU plastic packaging waste is recycled, with Ireland lagging well behind with only 31%. Reasons for the surprising statistics are many, with Dilkes-Hoffman et al. (2018) noting that not all plastics can be recycled, as some are too small to enter the sorting process while others are prone to be contaminated with food. A price premium is not the only aspect consumers are willing to accept. Schwepker et al. (1991) also noted in their work that consumers are willing to purchase products in bulk or in less attractive packaging for more favourable environmental outcomes.

While research shows that some are willing to pay a price premium for eco-friendly products, Barbarossa and Pastore (2015) posit that this is not the case for low involvement, frequently purchased items. The authors note that even environmentally friendly conscious consumers will prioritise price over any other attribute for such goods as they perceive green products as more expensive. This links in with Vermeir et al. (2016) who note that organic may be viewed as a better ethical and healthy choice, but it only commands 1% of the market share as it's perceived to be costlier.

2.4 Consumer education and knowledge of sustainable packaging

Van Birgelen et al. (2009) and Herbes et al. (2018) note the need to educate consumers of their packaging options, with the latter also noting a concern for 'greenwashing', which is making misleading environmental claims to further corporate gains (Watson, 2016). Herbes et al. (2018) note that 44% of all beverages are sold in reusable packaging in Germany, but that 53% of all plastic waste in the country was incinerated instead of recycled. The authors posit that the German consumer may have bought those items thinking the process of returning to a

reusable state was in place, however this could also be construed as misinformation. Would the consumer change their purchase decision if they knew this outcome?

Herbes et al. also note there is a rise of eco-friendly and sustainable packaging, but this isn't well defined and is open to possible 'greenwashing' cynical claims. When a brands' packaging is 'eco-friendly', a term that has never really been subject to a clear conceptualisation as Magnier and Crie (2015) note, the full product life cycle needs to be considered before making such claims. Similarly, Tobler et al. (2011) note in their research that consumers often overestimate the environmental friendliness of packaging materials and that the real assessment of such an environmental impact is too complex for consumers. For instance, Elgaaied-Gambier (2016) discovered in their work that although consumers would be willing to make changes for a more positive environmental outcome, it can be difficult as certain obstacles exist from them choosing non over packaged goods. This is mainly due to negative beliefs held about such products that they are of inferior quality or lack sufficient protection, or simply because they see over packaged items as more attractive. However, during a trial conducted in their research, they found that when a premium brand (that is one associated with high quality and high brand equity) has superfluous packaging removed, it did not lead to a significant decrease in perceived quality. The research wishes to investigate further the Irish consumer's perception on environmentally friendly packaging and if they believe they have the right information at hand to make the right decisions, or if they wish more responsibly be placed on the manufacturers to provide better environmental solutions.

2.5 Food Waste: The lesser known environmental impact

Rundh (2005) notes that plastic has proliferated in the packaging arena due to its low cost, weight and excellent properties that help preserve foodstuffs. The author defends the use of plastic by arguing many inferior materials could be the reason behind large quantities of food waste. Similarly, Koutsimanis et al. (2012) argue that plastics are the most versatile for use with perishable foodstuffs due to their rigidity and are currently the only material that allow a modified atmosphere to

maximise shelf left. This is seen by some as the greater threat to the environment and that innovation in packaging should be more focused on reducing the amount of food waste from field to fork (Wikstrom et al. 2014). Dilkes-Hoffman et al. (2018) posit the same thought in that food packaging design should focus on the reduction of food waste even if a biodegradable material is used. This opens up an area of investigation to assess the total environmental impact on a products packaging. Lindh et al. (2016), Koutsimanis et al. (2012) and Elgaaïed-Gambier (2016) also note that historically environmental concerns focused on reducing and the recycling of packaging material, but that packaging can have a great positive environmental impact if it can reduce food waste. Lindh et al. (2016) saw in their research that only 8% of respondents spontaneously replied that packaging should protect the product and assumed it was so low because consumers expected it. It could be construed that don't fully considerate the benefits and environmental impact of fresh and preserved foodstuff, and this is an area open for further investigation.

2.6 Gaps in existing research

No studies of this nature have been done in Ireland in recent times, a country that has pioneered social policies in the past like the plastic bag tax and the cigarette smoking ban for which we are often referenced around the world as social policy innovators.

Since many of the key pieces of work in this area, there has been huge social and media interest in the areas of climate change and specific the 'war on plastic' (Buranyi 2018). Many organisations are scrambling to appear ethical in adopting environmental friendly strategies with regards their products packing but they may run the danger of being accused of greenwashing. Previous research has shown that consumers show bias and also inconsistencies, leading to the noted 'concern – behaviour gap' which was mentioned earlier. The author wishes to understand if consumers are aware of this and if they acknowledge that they would advocate if legislation was introduced to provide for better packaging solutions for food and beverage products. Consumers also only appear to consider the end of life of the packaging, but may not fully consider the environmental impact the packaging can have on food waste, which itself is of huge environmental concern. The importance

of food waste and how packaging plays its part is also worth investigating from the consumer's point of view.

Chapter 3: Research questions and objectives

3.1 Introduction

Ghauri and Gronhaug (2005) define research as ‘a process of planning, executing and investigating in order to find answers to our specific questions’. This chapter will give an overview of the research aim and objectives of this study.

3.2 Research Aims and Objectives

The overall aim of this study is to explore Irish consumer’s purchasing behaviour of fresh fruit and vegetables and to see if and how this is influenced by the environmental impact of its packaging. The researcher hopes to understand if the unprecedented current climate of environmental concerns also has an influence on the buyer behaviour and their attitudes.

3.3 Research Objectives

The research objectives of this study hope to address the following questions:

Research Objective 1 - Where does the environmental impact of packaging weigh on Irish consumer’s buyer behaviour for fresh fruit and vegetables?

Research objective 2 - What are Irish consumer’s perceptions of what sustainable packaging means to them?

Research objective 3 – What are Irish consumer’s perceptions of packaging benefits and food waste?

It is hoped that analysis of such data will be of benefit to manufactures, marketers, retailers and perhaps government organisations with regard to planning their waste reduction strategies. As mention before in the introduction, Ireland already has set president in relation to making strides on social changes, so the researcher wants to investigate is this due to consumer’s attitude, their actions, that of businesses, government or a mix of all the aforementioned.

Chapter 4: Research Methodology

4.1 Introduction

This chapter will explain the background to the choice of research methodology deemed best appropriate for this study. This is the foundation of the planning and executing of the research as mentioned in the previous chapter. Ethical considerations will also be discussed, along with limitations of the researched methods applied.

Although there is no definite right or wrong approach to any research, the research should strive to utilise an approach that is able to offer them the relevant answers to their research questions under examination (Gerson & Horowitz, 2002).

4.2 Research Methodology

A Research Methodology is the theory of how research is undertaken, and includes both theoretical and philosophical assumptions upon which research is based and the implications of these for the method, or methods, adopted. (Saunders et al, 2016).

The Research Onion, as seen in figure 1, is an excellent guide for researchers in how to adopt the correct research strategy for their study. Working from the outside and then by ‘peeling’ away the layers like an onion, this model can guide the researcher into the thought process into the selection of the correct philosophies, as seen in the outer layer.

It then opens up into different approaches, strategies, choice of data collection, time horizons and finally techniques.

The author will select types of research methods to allow the best analysis of the research questions posed.

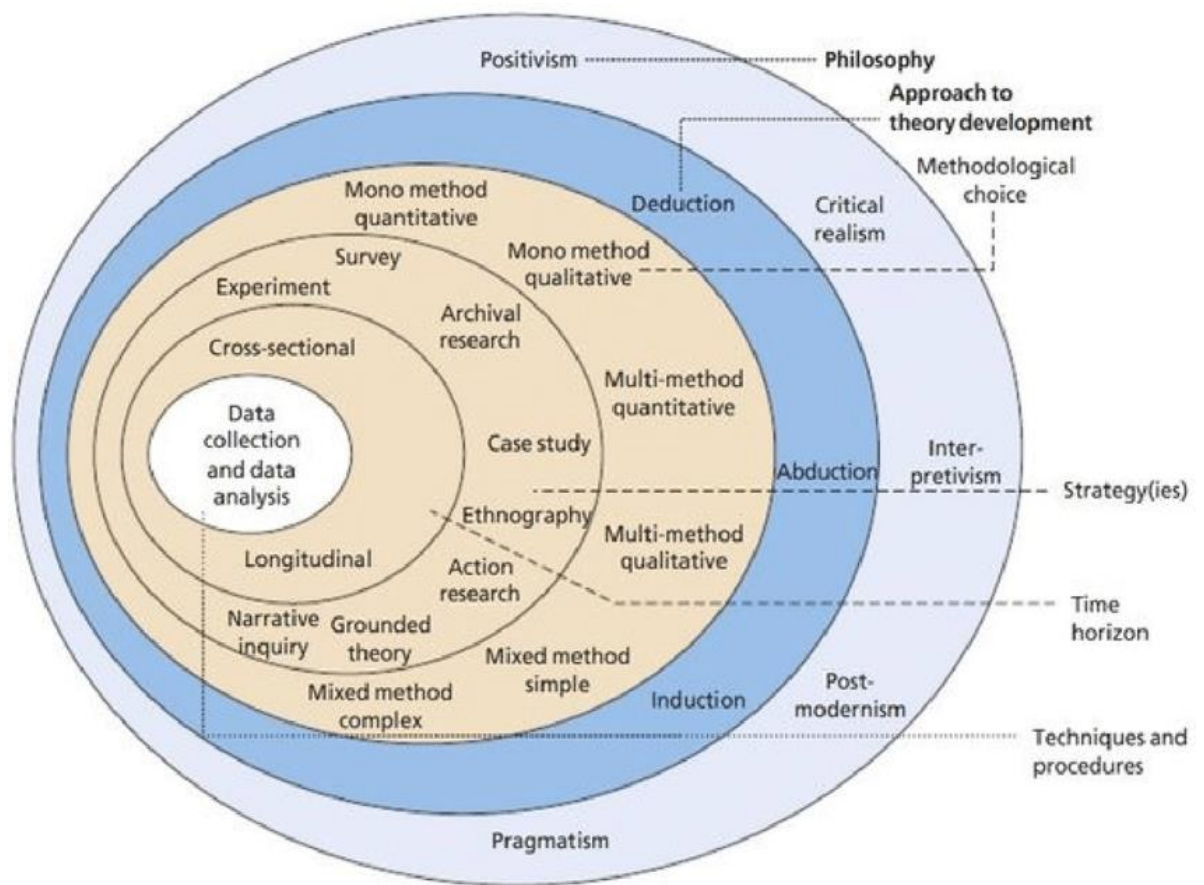


Figure 1 - The Research Onion.

Source: Saunders et al. (2016).

4.3 Research Philosophy

The outer layer of the research onion is concerned with the different research philosophies.

Saunders et al. (2016) list 5 main philosophies: positivism, critical realism, Interpretivism, postmodernism and pragmatism. However, the two key philosophies discussed more frequently are positivism and Interpretivism.

4.31 Positivism & Interpretivism – The paradigm continuum

A research paradigm is a philosophical framework that guides how scientific research should be conducted (Collis and Hussey, 2014).

Each of the research philosophies are different and can be distinguished by understanding the difference in assumption each one makes. Two of the main aspects of research philosophies are ontology and epistemology.

Ontology relates to the nature of reality and is created by social understanding. On the other hand, epistemology is concerned about what we accept as valid knowledge. Table 1 shows the difference of each assumption based on the continuum paradigm between positivism and Interpretivism. An ontological perspective will be adopted, as the investigation seeks to understand participant subjectivism.

As participant's observations and views will be considered as acceptable knowledge, an epistemological paradigm will also be adopted in this study.

Table 1.

Source: Collis, J. and Hussey, R. (2014).

Typology of assumptions on a continuum of paradigms:

	Positivism ←————→ Interpretivism					
Ontological assumption	Reality as a concrete structure	Reality as a concrete process	Reality as a contextual field of information	Reality as a realm of symbolic discourse	Reality as a social construction	Reality as a projection of human imagination
Epistemological stance	To construct a positivist stance	To construct systems, process, change	To map contexts	To understand patterns of symbolic discourse	To understand how social reality is created	To obtain phenomenological insight, revelation
Research Methods	Experiments, surveys	Historical analysis	Interpretive contextual analysis	Symbolic analysis	Hermeneutics	Exploration of pure subjectivity

The research philosophy for this study will take a more interpretivist approach. This approach is more concerned with generating theories and is looking to gain a more in-depth and richer understanding by using qualitative research methods. The area

of the consumer's buyer behaviour is under investigation in the current climate and this is why the research aims to explore it in detail.

4.4 Sampling of participants

As this is an interpretive study, a small sample size was chosen.

It was confirmed prior to the interview that the participant was the primary shopper for the household to ensure better data collected as the questions were focused on buyer behaviours on a specific food range. A participant who would only occasional purchase such goods on an infrequent basis would not be expected to give the same insights. Table 2 shows the list of participants.

Table 2

Participant Ref	Gender	Age
Interviewee 1	Female	42
Interviewee 2	Male	36
Interviewee 3	Male	42
Interviewee 4	Male	32
Interviewee 5	Female	37
Interviewee 6	Female	39

4.41 Purposive sampling

Purposive sampling, also known as judgement sampling, was the adopted form of sampling for this study. This is whereby the sampling is conducted with the reference to the goals of the research so that the units of analysis are selected in terms of criteria that will allow the research questions be answered (Bryman & Bell, 2011).

4.5 Data collection

4.51 Data Collection Choice

The layer in the research onion concerned with methodological choices (as shown in figure 2) used for data collection contains many options. However, there are two overarching choices; mono method or multiple methods. As this study adopts an

interpretivist approach, a mono method choice was selected. This relates to a mono-method qualitative study which is ultimately a single data collection technique.

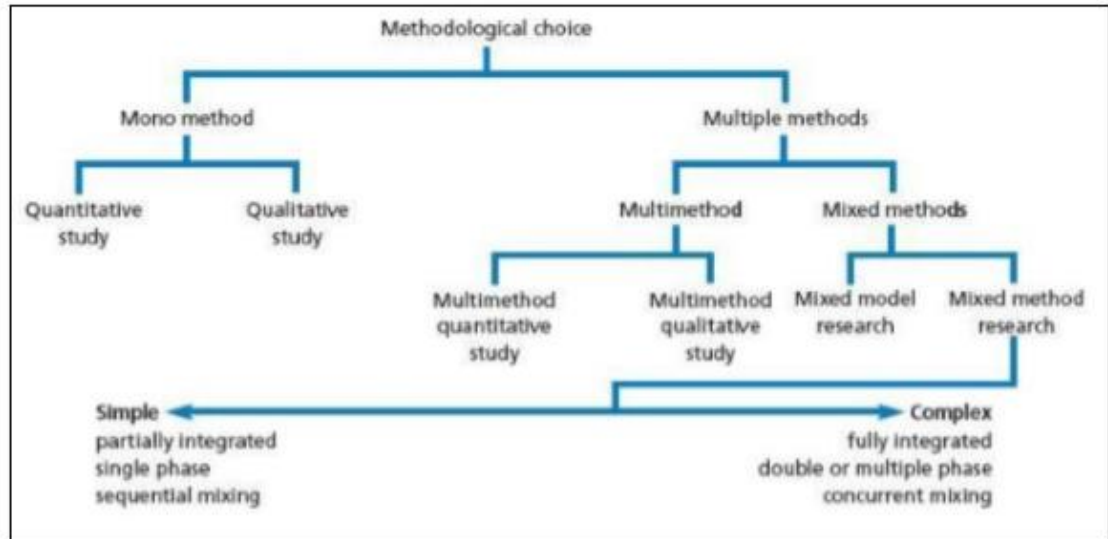


Figure 2: Methodological choice (Saunders, Lewis and Thornhill, 2016, p167).

4.52 Semi structured interviews

The research selected semi-structured interviews as their mono-method data collection technique as Kvale and Brinkmann (2009) state in their introduction ‘if you want to know how people understand their world and their lives, why not talk with them?’.

An open interview is one that is straightforward and informal with no structure. At the opposite end would be pre-coded interviews which would be read from a script with no deviation. The semi-structured interview approach adopted allowed the research to ask prepared and specific, relevant to the research aims and objectives, but then allowed the respondent much latitude to respond to the questions in the ways that it seemed sensible to them (Fisher, 2010).

A questionnaire was devised for the collection of data to discover the participant’s true feelings and opinions on the themes contained in the research questions. Some of the key questions around perceptions of packaging were taken from a subset of questions already developed from a previous academic work from Lindh et al. (2016) which focused on food packaging. The nature of a semi-structured interview allows the research to probe and vary other questions depending on the

flow of the conversation. The interview scheduled used can be found in the appendix.

The interviews were recorded and transcribed afterwards, and consent was requested prior to each.

4.6 Data Analysis

The interviews were conducted over a week in early August 2019. Each interview was recorded using an audio recorder and then transcribed later that evening. Each interview took approximately 25mins.

Every interview transcript will be analysed and the output coded to allow for commonalities, differences, patterns and structures to be explored (Seidel and Kelle, 1995).

According to Kvale and Brinkmann (2009), coding involves associating one or more keywords to a piece of text in order to later identify a statement. Cooper and Schindler (2014) go further by developing coding as more than just a keyword, but can be a number or any other symbol so that the output can be grouped into specific categories.

The researcher not only noted the audio transcription from each participant, but also their body language and tone of voice to detect any other signals or messages about various themes that arose.

4.7 Ethical considerations

Kvale and Brinkmann (2009) note there should be four ethical questions raised at the beginning of an interview study:

Informed consent – this implies that the participants who took part in the research were made aware of its overall purpose as well as any potential risks and / or benefits. The researcher both briefed and debriefed each interviewee and requested that they read an appropriate consent form which they date and signed. At any point, the interviewees were free to withdraw consent at any stage in the process (see Appendix 2 for a black example copy of blank informed consent sheet).

Confidentiality – Confidentiality is key to ensure a bond of trust between the researcher and the interviewee. Confidentiality was assured during this research by

ensuring anonymity during the interview process. Each interviewee was referred to only by a number and their real name was not used.

Consequences – the consequences of the research relate to the possible harm or benefits to the interviewees as a result of their involvement in the research.

The Role of the researcher – the researcher is the ‘main instrument’ for data collection in that they are ultimately integral, in knowledge, experience and honesty. The researcher publishes their findings that are accurate and validated and does not engage in any misuse of research.

4.8 Summary

This study was undertaken using qualitative method. The role of collecting data is paramount to the successful answering research goals. The researcher employed qualitative research, in the form of in-depth semi structured interviews. This allowed for the gathering of thorough and descriptive information which ultimately allowed the researcher to acquire first-hand information in regard to consumer’s attitudes, beliefs and behaviour towards their purchase of fresh fruit and vegetables and their attitudes on their packaging.

The following section in the thesis will highlight the findings from the research conducted using the methods outlined above.

Chapter 5: Findings

This chapter presents the key findings from the semi structured interviews with the 6 participants. Themes were identified and the results are displayed alongside their relevant research objectives as part of this study. (The breakdown of the participants can be found in table 2 in the previous chapter).

Research Objective 1 – Where does the environmental impact of packaging weigh on Irish consumer’s buyer behaviour for fresh fruit and vegetables?

The first research objective was to explore if Irish consumers purchasing behaviour of fresh fruit and vegetables is affected by the total environmental impact of its packaging.

5.1 Price over packaging

Price was a notable major theme to emerge from the interviews in relation to the top considerations of consumer purchasing behaviour of fresh fruit and vegetables. All of the interviewees were asked where they source their fruit and vegetables. All responded that they choose one of the German discounters, Aldi or Lidl for some of their produce. When asked why, price was the main reason especially as both retailers are known for their weekly ‘special offers’ or ‘Super 6’ on such produce. One interviewee put it succinctly:

“The fact I buy from the major discounters, I know the food has probably been travelling a long way to get to the shelf, so need to take that on the chin. You can’t be ethical and buy cheap food at the same time”. (Interviewee 4, male).

“If definitely weighs on my mind to be ethical, but unfortunately price is a huge thing and I probably would actually turn a blind eye to the ethics that don’t sit well with me and I would buy them if it was cheaper”. (Interviewee 5, female).

“I do try to make sustainable choices where possible, but in most cases I’d be watching how much I’m spending. I do try and eat and shop well, but we’ve a lot of other huge expenses like a mortgage and childcare, so I’m very conscious to keep the food bill down as best I can”. (Interviewee 6, female).

5.2 Convenience

The theme of convenience also came through for the interviewees. When asked why they shopped in a certain retailer, proximity to home or on their route home played a part:

“I used to go to the farmer’s markets over in Leopardstown on a Friday as it was a nice walk over during my lunch break, but they’ve gone now. It’s a shame as it was so handy”. (Interviewee 1).

“Convenience is important as walking distance to my house”. (Interviewee 2).

“I’d shop in the local grocers also because it’s so convenient as it’s only a short walk from home”. (Interviewee 5).

Somewhat related to convenience, another participant noted that lack of availability was the cause of some frustration as they would prefer to purchase the items loose to avoid the plastic packaging:

“I would pick something up that doesn’t have lots of packaging. I bring my own bag so would prefer loose apples”. (Interviewee 4).

5.3 Low consideration towards ethical purchasing and sustainability

All the interviewees were asked if they bought organic fruit and vegetables in order to get an idea of their ethical purchase behaviour prior to discussing fruit and vegetables with regards their packaging.

All but one of the participants frequently purchased organic, and the only one who did only did so for 3 types of produce where they ate the skin, in the belief that there would be no pesticides present:

“Sometimes I’ll try get organic cucumber, for things I eat with the skin on, like kiwis and peaches. It depends on price though. If I saw a small difference, I may consider it but not if a big difference in price exists. I don’t want to be eating pesticides but can’t justify the price increase if I bought all my fruit and vegetables organic”. (Interviewee 5, female)

Similar to above, the rest of the participants noted price as the main reason they didn’t purchase organic fruit and vegetables as their first choice, with nearly all saying they possibly would consider if they were on special offer and nearer the price of their usual non-organic choices:

“No, I wouldn’t on my first reach. I wouldn’t buy due to price and don’t really notice in quality or taste anyway”. (Interviewee 1, male).

“If the price is marginal, I may go with organic”. (Interviewee 2, male).

“No, I wouldn’t be focused on it. Maybe if they were on special offer. Doesn’t bother me if it isn’t organic to be honest”. (Interviewee 4, male).

“I’ve started using a glass reusable bottle recently”. (Interviewee 3, male).

Research objective 2 - What are Irish consumer’s perceptions of what sustainable packaging means to them?

To get a better feeling of the current climate, the research wished to explore the participant’s feelings on environmentalism and sustainability. This is mostly due to it being a point of social concern at time of this study.

5.4 Awareness of current climate of environmental concern

Many of the interviewees mentioned, unprompted, news articles they read or saw in recent terms to show they were aware of the concern about plastic and its impact on the environment:

“Lately I think about it more because of all this thing about the plastic and the rest of it. In the past couple of months, I saw a programme about plastic and where it ends up, plastic in Malaysia and plastic in clothes. It’s awful. It’s on my mind more now than ever”. (Interviewee 1, male).

“I read somewhere that we are indirectly consuming plastic in bottles that we drink from and even our water due to micro plastics in the water supply”. (Interviewee 3, male).

“I heard a story during the week that someone found a crisp packet on the English coast from 1957. It’s frightening to think that it was found for nearly 60 years just floating around the place”. (Interviewee 4, female).

“I’m a teacher and I’m trying to make a better difference over the past year or two. We’ve had more people in giving talks to the kids, especially about plastics in the sea and the children are more aware of it”. (Interviewee 5, female).

5.5 Consumers understanding of packaging material with greatest environmental impact

To gain an understanding of their perceptions and knowledge of packaging materials, each interviewee was asked directly what packaging material they considered to be most damaging from an environmental aspect. All answered plastic with a slight variance in type for each:

“Plastics, especially ones that trap animals. What are those types called? You know the ones that can get caught around bird’s necks used to group cans of beer?” (Interviewee 1).

Here the participant remembered directly an image from a nature documentary which showed the impact a discarded plastic ring can had on wildlife.

Two of the participants tried to give better reasoning behind their choice of plastic as most negative:

“I would image hard plastics. I assume the apple containers that scrunch up and can be recycled in Ireland and the hard plastics can’t? It’s those hard ones that we can’t recycle that are probably the worst”. (Interviewee 5).

“Plastics. Some of it can’t be recycled and much of it gets burnt now anyway in the incinerator”. (Interviewee 6).

5.6 Irish consumer’s perception of what environmental sustainable packaging is.

Similar to the above question, all interviewees were asked outright what packaging material had the least negative impact in the environment. All participants gave paper as their response, but the reasons given differed somewhat:

“I suppose paper or cardboard that comes from trees as it’s re-growable but not necessarily reusable”. (Interviewee 1, male).

“Cardboard and paper because they can be recycled” (Interviewee 3, male)

“I suppose paper or recyclable packaging. The less packaging the better I guess”. (Interviewee 4).

“A brown paper bag would have to be I think. Paper comes from trees so it can decompose quicker”. (Interviewee 5, female)

“I would think paper as it can be recycled and could come from sustainable forests. I don’t see much packaged in paper though so not sure if it’s any good?”

(Interviewee 6, female)

Research objective 3 – Consumer perceptions of packaging benefits and the issue of food waste

Many of the interviewees did speak positively at times of the function packaging had on fresh fruit and vegetables:

“I like the little baskets that you can get clementines, even if charge a little extra. I wouldn’t mind paying a bit extra if it’s better for the environment. Whenever you have a proper container the fruits won’t be as damaged and would be safely protected”. (Interviewee 3, male).

“I know it keeps it sealed and fresh like beetroot. Stuff like that I understand. I suppose you need packaging on certain types?” (Interviewee 4).

“The packaging keeps it all together and people aren’t handling all the fruit and vegetables. I guess this is important in a big supermarket with lots of selection”. (Interviewee 5, female).

5.7 Food waste

When asked, all of the participants were very aware of the level of food waste they dealt with.

“We waste a lot of fruit and veg. I do think about it when I buy and try to cook, and sometimes try to just buy in single. I probably should try and buy just when I need it as I do have shops nearby”. (Interviewee 3, male).

“I think it’s a big problem. I fully know that probably a quarter if that will be wasted and maybe more. When I buy it, it’s with the intention of eating it but sometimes the week can be hectic and we may be out”. (Interviewee 5, female).

The research could interpret from the participant's reaction that they were somewhat embarrassed and disappointed at admitting the amount of food waste but the admission still was forthcoming and honest.

Being conscious of the potential food waste, one participant tried his best to work out a meal plan for the week to avoid any wastage:

"I'm a big fan of food plans. I'd usually check what the special offers are in Lidl and Aldi and base my weekly meals around them. I hate throwing out food and I'm very conscious of waste". (Interviewee 4, male).

"I think it's not valued when I buy in bulk and it's cheaper from supermarket and think there's more wasted. When I buy from the grocer, it's more expensive and I think I'd value it more and would be more annoyed if I waste it". (Interviewee 5, female)

"I know I throw away a lot and sometimes I think it's because I buy in bulk. I'd usually buy a pack of 6 apples and remember to eat one in the first day or two, but then I forget and throw the rest out because I've forgot about them! I probably really should only buy them when I want them". (Interviewee 6, male).

5.8 Summary of key findings

All participants were very aware of the current climate of environmental concern with some even citing specific examples of media content they had seen recently. Plastic was seen as the material with most negative impact and there was a very negative feeling towards it being used as a packaging material.

However, there was a noticeable lack of commitment to be more ethical due to price and convenience being bigger factors.

The concern behaviour gap, as mentioned in chapter 2, was very evident as even though all knew plastic was most damaging in terms of environmental impact, all continued to purchase produce that used it as a packaging material.

Chapter 6: Discussion

6.1 Introduction

The aim of this chapter is to interpret the findings discovered in the previous chapter and how they address the research objectives as set out in Chapter 3 while linking back to the relevant literature in Chapter 2.

6.2 Consumers awareness of recent events regarding environmental concern

The majority of the literature reviewed in Chapter 2 all mention in their introductions about the various levels of environmental concern that has grown over the past number of years. As noted from other secondary sources in the introduction, there has been an unprecedented media and public focus on environmental issues, with the ‘war on plastic’ taking a specific focus over the past 2 years. All of the participants who took part made reference to this current focus on plastic use. Three participants had even read or watched media pieces on plastic waste and pollution very recently.

6.3 The concern-behaviour gap

As already mentioned, all the participants believed plastic was the packaging material to cause the most negative impact to the environment. The language used by some of the participants when discussing the impact of plastic waste on the environment was very emotive, evoking feelings of awfulness and fright. These sentiments agree with Herbes et al. (2018) who noted that consumers were now paying more attention towards the environmental impact of their consumption, and also with Koutsimanis et al. (2012) who specifically noting consumers concern about the impact of food packaging on the environment.

However, during the same interviews by the researcher, the participants admitted to still purchasing fresh fruit and vegetables with plastic packaging which would appear to go against this observation. This phenomenon of a concern-behaviour gap links directly back to that seen in Chapter 2. The researcher was surprised to see it

so blatantly from just interviews and perhaps presumed another level of ethnographical research would have been needed.

As Martinho et al. (2015) and Rokka and Uusitalo (2008) noted in their work that even those green consumers with the most environmentally friendly conscious do not choose products based solely on their environmental merits. As also mentioned by Van Birgelen et al. (2009), there are other attributes that come into consideration, with the main one being price.

One of the participants explained the issue by showing acceptance that they were purchasing products that were not of a low environmental impact as the main purchase attribute was price. By choosing to shop at one of the large discounters, they felt that the ethical decision was already being sacrificed over price.

Barbarossa and Pastore (2015) made specific reference to low-involvement and frequently purchased items which fresh fruit and vegetables could be categorised as. This study's finding would agree with their research as it showed that even green consumers give price a higher weighing over sustainability for such goods. Oleson et al. (2018) found that price surprisingly was only mentioned by 25% of their participants while investigating important attributes for choice of Danish consumers for carrots. This could be perhaps that the researcher's findings show that Irish consumers are far more price conscious.

Johnstone and Tan (2015) posit that there is a perception that it's 'hard to be green' due to lack of time, money and knowledge. This was seen in this study's findings for each case in point.

From a time, perspective, each participant made reference to selecting a retail outlet that was either near home or on their commute home from work. Their busy lifestyle would restrict them from travelling to another outlet which may have a range of more sustainably packaged fruit and vegetables, perhaps like a greengrocer or farmers market. The money aspect has already been address by the attribute of price which emerged as a key theme throughout the interviews.

Klaiman et al. (2016) noted in their research that consumers have a higher willingness to pay for materials with a higher negative impact on the environment, like plastics. However, this study appears to go against that as the participants understood that plastic wrapped produce is most likely cheaper, and plastic wrapping would be as standard in retailers where price is the main selling point.

To understand the participant's green credentials further, each one was asked if they purchased organic fruit and vegetables. None admitted to buying much organic product which ties into Vermier et al. (2016) research that the organic market is so small despite having apparent eco-friendly benefits.

Many of the participants were frustrated at the lack of choice to have loose fruit and vegetables, or at least with no plastic. This lack of availability is a barrier that shows the importance of how other changes are required to reduce to concern-behaviour gap if such a consumer is willing to carry out their ethical buying intention.

6.5 Consumers awareness of the environmental impact of plastic and sustainability of other materials

Based upon a similar question asked by Lindh et al. (2016), each participant was directly asked what packaging material they considered to be most damaging from an environmental aspect.

Tobler et al (2011) argue that consumers should assess eco-friendliness on the end product and do not consider the life cycle assessment / effort it took to get the product to the shelf. Many of the interviewees supported a reduction of plastic packaging, with some proposing a total ban of it questioning its need. One interviewee brought their own bag with them to the shop so purchasing of loose fresh fruit and vegetables would satisfy their ethical choice.

Another interviewee showed confusion as to the type of plastic packaging that could be recycled in Ireland.

Overall, much of the research findings agree with Barbarossa and Pastore (2015) who note that lack of availability, higher perceived prices and improper communications about eco-friendly products are the main barriers which are responsible for causing the green concern-behaviour gap.

Many of the participants wished to perhaps have more of a choice with introduction of more products with less or no plastic. This was perhaps driven by the fact that many didn't understand the need for the packaging to be there in the first place, showing a lack of knowledge on their behalf which would need to be addressed.

However, Bray et al. (2001) noted that purchasing inertia appeared a strong barrier to consumption as it ultimately prevented any change, or consideration of change, in consumption patterns. This was even in the case where participants were to disregard price which had thought to be the key impeding factor in ethical consumption.

The author would agree with the concern voiced by Herbes et al. (2018) that there's a need to educate consumers of the packaging options.

The authors noted that in their research that every culture may have its own environmental value system. For example, through their research they found participants in Germany valued reusability more important while in France and the US it was recyclability. In this study, there was a mixed response to what was important, from recycled to recyclable to compostable. If Irish consumers have many different values, it may be hard to get consumer buy in from packaging changes. Schwepker et al. (1991) also note that those who don't usually consider environmentally friendly attributes could be changed as they are made aware of the issues. This is backing up to point that further education is required so consumers understand the reasons behind the packaging choice where applicable.

Packaging benefits and food waste

Lindh et al (2016) note from research only 8% of respondents spontaneously replied packaging should protect the product. Of the six interviewees in this study, only 1 made reference to packaging protecting the fresh product. Perhaps this was so low as it would be an assumed expected function of the packaging, but it may also show the lack of regard packaging has in order to avoid food wastage.

Authors note from research only 8% of respondents spontaneously replied packaging should protect the product – maybe so low because it's just expected? None of the participants made the link between the use of packaging to keep the product fresher for longer and the avoidance of food waste. Both were too distinct areas during the conversations that occurred.

Although findings show consumers want rid of packaging, there still are benefits for the retailer. There may also still be benefits for consumer is it allows the retailer to sell at a discounted price to bulk.

However, then the focus shifts on another environmental impact, that of food waste.

Chapter 7: Conclusions, recommendations and limitations.

7.1 Conclusions

The purpose of this study was to explore the purchase behaviours towards a specific product, fresh fruit and vegetables, by Irish consumers in relation to the environmental impact of its packaging. The aim was to understand if the concern-behaviour gap was still largely present despite an unprecedented increase of media and public concern on environmental issues over the past couple of years.

Through use of qualitative interviews and analysis, the key findings are:

- 1) The research found that Irish consumers place a low weighting on the sustainability of the packaging material on fresh fruit and vegetables. This was in term explained by the already noted concern-behaviour gap, which appeared to be not affected by the unprecedented climate of environmental concern.
- 2) The researcher did note a strong ethical intention to purchase fruit and vegetables with eco-friendlier packaging, however other attributes like price and convenience, won out in the purchase action.
- 3) Irish consumers are fully aware of the negative impact plastic has on the environment but are confused by various end of life terms of reusability or recyclability. They have different environmental values regarding packaging which can cause confusion and lack of total consumer buy in.
- 4) Irish consumers are concerned and embarrassed about their levels of food waste, but appear to be doing very little about it. They put some blame towards the use of retailers packaging fruit and vegetables in bulk which can cause them to buy more than they need.

There was no apparent previous study on such a narrow focus of product type in Ireland before and especially given the focus on the ‘war on plastic’ in the media and public domain.

7.2 Recommendations for future research

Even since this study was undertaken, there has been an even greater surge of media and public interest in this debate. Many retailers have now made commitments to removing plastic packaging from their stores. However, details are still scant as to what will replace it or if all produce will be loose.

As Barbarossa and Pastore (2015) noted in their research, even environmentally conscious customers focus on price for low-involvement frequently purchased items. In this study, fresh fruit and vegetables could be seen as such a product. Perhaps if another product type of more involvement and less frequent purchase was the focus of the study. A comparison against different product types could also be performed to test this.

No focus was put on demographics or other social attributes of the participants, and this could be investigated.

7.3 Recommendations for practitioners

From the results, organisations involved in environmental sustainable objectives will take comfort in knowing the heartfelt concern and worry Irish consumers have on the impact non sustainable packaging can have. However, they need to be fully aware of the concern – behaviour gap and work to eliminate attributes that allow this to happen.

Where availability is a barrier to allowing customers to follow through with their ethical intention, produce supplied either loose or in sustainable packaging must also be provided.

The current ‘war on plastic’ may be having too strong an impact and consumers may demand a removal of all packaging from fresh fruit and vegetables. This would in turn impact shelf life and sustainable and alternative options to plastic may be seen in a negative light. Further education is required

Should retailers take action to change plastic packaging, they would be advised to learn from previous research which could assist with their decision. For example, Norgaard et al, (2018) found in their research that consumers associated carrots packed in plastic bags as of relatively lower quality compared to carrots in box packages (either plastic or cardboards).

From a policy making perspective, we suggest that more regulation is required, i.e. companies need to comply with more stringent green standards, because perceptions take time to change (Johnstone and Tan, 2015). From the interviews, it become apparent that Irish consumers weren't going to make changes to their purchasing behaviour, so focus must switch on retailers, manufactures or national Government.

Regarding business decisions, Prothero et al (2010) posit that there is a growing recognition within business that going green is not simply about gaining competitive advantage but moreover a necessity for the future survival of our planet. It's worth noting that this was 9 years prior to the current climate, but can vividly be seen today as nearly all businesses adopt sustainable strategies.

However, getting rid of all plastic could be an unwise decision as Prothero et al. (2011) note that market research for sustainable industries can fall well short due to the ever present gap between articulated positive attitudes towards sustainability and people's actual consumption behaviour.

7.4 Limitations

This study was performed using a small sample size, however it cannot be generalised to the entire population of Ireland. A similar study with a larger sample size to determine if the findings can be replicated could enhance the external validity.

There is also the possible presence of bias to be recognised given the use of in-depth interviews. Due to time constraints, no further investigation could take place to address these issues.

Appendices

Appendix 1 - Interview schedule

- Q1 Where do you normally purchase your fresh fruit and vegetables?
- Q2 Do you buy any organic fresh fruit and vegetables?
- Q3 Do you consider the packaging function when choosing fresh fruit and vegetables? If so, please explain how
- Q4 Do you consider the packaging material when choosing fresh fruit and vegetables? If so, please explain how.
- Q5 What are your thoughts and perceptions on what is meant by environmentally friendly packaging?
- Q6 What packaging do you think has the most negative impact on the environment? Please explain why you gave your answer.
- Q7 What packaging do you think has the least negative impact on the environment? Please explain why you gave your answer.
- Q8 What are your thoughts of packaging on fresh fruit and vegetables?
- Q9 How important is the packaging in your choice of fresh fruit and vegetables from an environmental perspective from a scale of 1 to 5 (where 1 is not important and 5 is very important).
- Q10 Why do you think fresh fruit and vegetables are sold in packaging?
- Q11 What are your thoughts on food waste?

Appendix 2 – Informed consent sheet

[An exploration of Irish consumer buyer behaviour towards fresh fruit and vegetables with regards to the environmental impact of their packaging]

Informed Consent to take part in research.

- I..... voluntarily agree to participate in this research study.
- I understand that even if I agree to participate now, I can withdraw at any time or refuse to answer any question without any consequences of any kind.
- I understand that I can withdraw permission to use data from my interview within two weeks after the interview, in which case the material will be deleted.
- I have had the purpose and nature of the study explained to me in writing and I have had the opportunity to ask questions about the study.
- I understand that participation involves taking part in informal interview, which will be recorded to assist the research to listen back to key points.
- I understand that I will not benefit directly from participating in this research.
- I agree to my interview being audio-recorded.
- I understand that all information I provide for this study will be treated confidentially.
- I understand that in any report on the results of this research my identity will remain anonymous. This will be done by changing my name and disguising any details of my interview which may reveal my identity or the identity of people I speak about.
- I understand that disguised extracts from my interview may be quoted in the researcher's dissertation.
- I understand that if I inform the researcher that myself or someone else is at risk of harm they may have to report this to the relevant authorities - they will discuss this with me first but may be required to report with or without my permission.
- I understand that under freedom of information legalisation I am entitled to access the information I have provided at any time while it is in storage as specified above.
- I understand that I am free to contact any of the people involved in the research to seek further clarification and information.

Signature of research participant

Signature of participant

Date

Signature of researcher

I believe the participant is giving informed consent to participate in this study

Reference List

- Barbarossa, C. and Pastore, A. (2015) 'Why environmentally conscious consumers do not purchase green products: A cognitive mapping approach', *Qualitative Market Research: An International Journal*, 18(2), pp. 188–209.
doi: 10.1108/QMR-06-2012-0030.
- Barbarossa, C. and De Pelsmacker, P. (2016) 'Positive and negative antecedents of purchasing eco-friendly products: A Comparison Between Green and non-green consumers', *Journal of Business Ethics*, 134(2), pp. 229–247. doi: 10.1007/s10551-014-2425-z.
- Bray, J., Johns, N. and Kilburn, D. (2011) 'An Exploratory Study into the Factors Impeding Ethical Consumption', *Journal of Business Ethics*, 98(4), pp. 597–608.
doi: 10.1007/s10551-010-0640-9.
- Bryman, A. & Bell, E., (2015). *Business Research Methods*. 4th ed. Toronto: Oxford University Press.
- Buranyi, S. (2018) 'The plastic backlash: what's behind our sudden rage – and will it make a difference?', *The Guardian*, 13 November. Available at: <https://www.theguardian.com/environment/2018/nov/13/the-plastic-backlash-whats-behind-our-sudden-rage-and-will-it-make-a-difference/> [Accessed: 31 March 2019].
- Collis, J. and Hussey, R. (2014) *Business Research: A practical Guide for undergraduates and postgraduate students*. 3rd ed. London: Macmillan Education.
- Convery, F., McDonnell, S. and Ferreira, S. (2007) 'The most popular tax in Europe? Lessons from the Irish plastic bags levy', *Environmental and Resource Economics*, 38(1), pp. 1–11. doi: 10.1007/s10640-006-9059-2.

Cooper, D.R., Schindler, P.S., (2014) *Business Research Methods*, 12th ed., New York : McGraw Hill Education.

Dilkes-Hoffman, L. S. et al. (2018) ‘Environmental impact of biodegradable food packaging when considering food waste’, *Journal of Cleaner Production*, 180, pp. 325–334. doi: 10.1016/j.jclepro.2018.01.169.

Elgaaied-Gambier, L. (2016) ‘Who Buys Overpackaged Grocery Products and Why? Understanding Consumers’ Reactions to Overpackaging in the Food Sector’, *Journal of Business Ethics*, 135(4), pp. 683–698. doi: 10.1007/s10551-014-2491-2.

Fisher, C. (2010) *Researching and writing a dissertation*, 3rd ed., Essex: Pearson Education Ltd.

Flood, A. (2018) “‘Single-use’ named 2018 word of the year”, *The Guardian*, 7 November. Available at: <https://www.theguardian.com/books/2018/nov/07/single-use-named-word-of-the-year-2018-environment-collins-dictionary/> [Accessed: 27 January 2019].

Gerson, K., and Horowitz, R. (2002). ‘Observation and Interviewing: Options and Choices’, in T. May (ed.), *Qualitative Research in Action*, London: Sage Publications Ltd.

Geyer, R., Jambeck, J. R. and Law, K. L. (2017) ‘Production, use, and fate of all plastics ever made’, *Science Advances*, 3(7), p. e1700782. doi: 10.1126/sciadv.1700782.

Ghuri, P., Gronhaug. K., (2005) *Research Methods in Business Studies*, 3rd ed., Harlow, Prentice-Hall.

Gleeson, C. (2019) ‘*Attenborough effect*’ praised for reduced use of plastic, *The Irish Times*. Available

at: <https://www.irishtimes.com/news/environment/attenborough-effect-praised-for-reduced-use-of-plastic-1.3945951/> (Accessed: 3 August 2019).

Goodbody, W. (2018) 'Summer 2018 one of the hottest and driest in decades'. Available at: <https://www.rte.ie/news/2018/0905/991844-weather-heatwaves-met-eireann/> [Accessed: 6 July 2019].

Herbes, C., Beuthner, C. and Ramme, I. (2018) 'Consumer attitudes towards biobased packaging – A cross-cultural comparative study', *Journal of Cleaner Production*, 194, pp. 203–218. doi: 10.1016/j.jclepro.2018.05.106.

Hornak, L. (2016) 'Will there be more fish or plastic in the sea in 2050?', 15 February. Available at: <https://www.bbc.com/news/magazine-35562253/> [Accessed: 27 January 2019].

Jackson, S. L. (2012). *Research methods and statistics: A critical thinking approach* (4th ed., p. 90). Belmont, CA: Wadsworth.

Johnstone, M. and Tan, L. P. (2015) 'Exploring the Gap Between Consumers' Green Rhetoric and Purchasing Behaviour', *Journal of Business Ethics: JBE; Dordrecht*, 132(2), pp. 311–328. doi: <http://dx.doi.org/10.1007/s10551-014-2316-3>.

Klaiman, K., Ortega, D. L. and Garnache, C. (2016) 'Consumer preferences and demand for packaging material and recyclability', *Resources, Conservation and Recycling*, 115, pp. 1–8.

Koutsimanis, G. et al. (2012) 'Influences of packaging attributes on consumer purchase decisions for fresh produce', *Appetite*. (The 36th annual meeting of the British Feeding and Drinking Group, March 29th and 30th 2012, Brighton, UK), 59(2), pp. 270–280. doi: 10.1016/j.appet.2012.05.012.

Kvale, S. and Brinkmann, S. (2009) *Interviews: Learning the craft of qualitative research interviewing*. 2nd ed. Los Angeles: Sage Publications.

- Lindh, H., Olsson, A. and Williams, H. (2016) ‘Consumer Perceptions of Food Packaging: Contributing to or Counteracting Environmentally Sustainable Development?’, *Packaging Technology and Science*, 29(1), pp. 3–23. doi: 10.1002/pts.2184.
- Magnier, L. and Crié, D. (2015) ‘Communicating packaging eco-friendliness: An exploration of consumers’ perceptions of eco-designed packaging’, *International Journal of Retail & Distribution Management*, 43(4/5), pp. 350–366.
- Martinho, G. et al. (2015) ‘Factors affecting consumers’ choices concerning sustainable packaging during product purchase and recycling’, *Resources, Conservation and Recycling*, 103, pp. 58–68. doi: 10.1016/j.resconrec.2015.07.012.
- Monnot, E., Parguel, B. and Reniou, F. (2015) ‘Consumer responses to elimination of overpackaging on private label products’, *International Journal of Retail & Distribution Management*. doi: 10.1108/IJRDM-03-2014-0036.
- Monnot, E. et al. (2017) “Thinking Outside the Packaging Box”: Should Brands Consider Store Shelf Context When Eliminating Overpackaging?’, *Journal of Business Ethics*, 154(2), pp. 355–370. doi: 10.1007/s10551-017-3439-0.
- McCarthy, (2018) ‘Infographic: The Countries Banning Plastic Bags’ *Statista Infographics*. Available at: <https://www.statista.com/chart/14120/the-countries-banning-plastic-bags/> [Accessed: 27 January 2019].
- Nørgaard Olesen, S. and Giacalone, D. (2018) ‘The influence of packaging on consumers’ quality perception of carrots’, *Journal of Sensory Studies*, 33(1), pp. 1–11. doi: 10.1111/joss.12310.
- O’Sullivan, K. (2018) *A Chinese ban on plastic that brought the world some good*, *The Irish Times*. Available at: <https://www.irishtimes.com/news/environment/a-chinese-ban-on-plastic-that-brought-the-world-some-good-1.3425564/> [Accessed: 3 August 2019].

Prothero, A., McDonagh, P. and Dobscha, S. (2010) 'Is Green the New Black? Reflections on a Green Commodity Discourse', *Journal of Macromarketing*, 30(2), pp. 147–159. doi: 10.1177/0276146710361922.

Prothero, A. *et al.* (2011) 'Sustainable Consumption: Opportunities for Consumer Research and Public Policy', *Journal of Public Policy & Marketing*, 30(1), pp. 31–38. doi: 10.1509/jppm.30.1.31.

Ragaert, P. *et al.* (2004) 'Consumer perception and choice of minimally processed vegetables and packaged fruits', *Food Quality and Preference*, 15(3), pp. 259–270. doi: 10.1016/S0950-3293(03)00066-1.

Rokka, J. and Uusitalo, L. (2008) 'Preference for green packaging in consumer product choices – Do consumers care?', *International Journal of Consumer Studies*, 32(5), pp. 516–525. doi: 10.1111/j.1470-6431.2008.00710.x.

Rundh, B. (2005) 'The multi-faceted dimension of packaging: Marketing logistic or marketing tool?', *British Food Journal*, 107(9), pp. 670–684. doi: 10.1108/00070700510615053.

Saunders, M., Lewis, P., & Thornhill (2016) *Research Methods for Business Students*, (7th ed.), Essex: Pearson.

Schwepker, C. H. and Cornwell, T. B. (1991) 'An Examination of Ecologically Concerned Consumers and Their Intention to Purchase Ecologically Packaged Products', *Journal of Public Policy & Marketing*, 10(2), pp. 77–101. Available at: <https://www.jstor.org/stable/30000237> [Accessed: 26 January 2019].

Seidel, J., & Kelle, U. (1995). *Different functions of coding in the analysis of textual data. Computer-aided qualitative data analysis: Theory, methods, and practice*. Thousand Oaks, CA: Sage.

Tobler, C., Visschers, V. H. M. and Siegrist, M. (2011) 'Organic Tomatoes Versus Canned Beans: How Do Consumers Assess the Environmental Friendliness of

Vegetables?’, *Environment and Behavior*, 43(5), pp. 591–611.
doi: 10.1177/0013916510372865.

Watson, B. (2016) ‘The troubling evolution of corporate greenwashing’, *The Guardian*, 20 August. Available at: <https://www.theguardian.com/sustainable-business/2016/aug/20/greenwashing-environmentalism-lies-companies/> [Accessed: 29 March 2019].

Wikström, F. et al. (2014) ‘The influence of packaging attributes on consumer behaviour in food-packaging life cycle assessment studies - a neglected topic’, *Journal of Cleaner Production*. (Towards eco-efficient agriculture and food systems: Selected papers from the Life Cycle Assessment (LCA) Food Conference, 2012, in Saint Malo, France), 73, pp. 100–108. doi: 10.1016/j.jclepro.2013.10.042.

Van Birgelen, M., Semeijn, J. and Keicher, M. (2009) ‘Packaging and Proenvironmental Consumption Behavior: Investigating Purchase and Disposal Decisions for Beverages’, *Environment and Behavior*, 41(1), pp. 125–146.
doi: 10.1177/0013916507311140.

Vermeir, I. and Verbeke, W. (2006) ‘Sustainable Food Consumption: Exploring the Consumer “Attitude – Behavioral Intention” Gap’, *Journal of Agricultural and Environmental Ethics*, 19(2), pp. 169–194. doi: 10.1007/s10806-005-5485-3.