Understanding how the drivers of sustainable edible insects fit into Generation Z's consumption patterns in the UK

SOPHIE HURST

Competition Category: Undergraduate

Course: BA Business and Marketing Management

Oxford Brookes University

Word Count: 2999

**Abstract**

This study investigates the drivers and sustainability of edible insects and the influence they have upon Generation Z. To help marketers understand and approach ways in which edible insects can be more readily accepted in the market.

Existing research proves that edible insects can be used as a sustainable protein in modern diets; however, Western views around the consumption of edible insects are viewed with disgust and negativity due to social and cultural influences.

However, research has shown that the option of Generation Z’s towards insect consumption has been under-researched.

This study consisted of 6 semi-structured qualitative interviews with both male and female participants from Generation Z.

Findings have shown a low perception and awareness of edible insects within Generation Z, with cultures playing largely in opinions. All participants confirmed that more education was needed to change their consumption habits. This study also highlights how Generation Z views sustainable products – noting that they were unsure when they were buying them.

Overall, marketers need to educate Generation Z to help them make sustainable food choices. Concerning edible insects, a more extensive social acceptance is required to take off in the market.

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# Introduction

Sustainable consumption consists of doing more and better with less, decoupling economic growth from environmental degradation, increasing resource efficiency and promoting sustainable lifestyles (UN, 2021). With climate change and global population growth threatening the sustainability of food systems, organisations are seeking solutions to help lead to a more sustainable consumption strategy (Legendre & Baker, 2021). Sustainability is a rapidly growing market, with 65% of consumers seeking products that enable them to live sustainable and socially responsible lives (Fromm, 2020).

In this paper, we will explore the sustainability of edible insects that the UN has scouted as a, nutritious and cost-effective approach to sustainable consumption (Legendre & Baker, 2021). Looking into the practices and drivers of the emerging consumer market of Generation Z born between 1995-2009 (Passport, 2018) and how they perceive edible insects and sustainability.

The research objectives for this study are as follows:

1. To investigate Generation Z's perceptions and awareness towards edible insects.
2. To explore the sustainability of edible insects and how they could fit into Generation Z's consumption behaviours.
3. To analyse the impact of cost on sustainable edible insects in relation to Generation Z.
4. To explore the effects of cultural and social influence on Generation Z towards the consumption of edible insects.

# 2.0 Review of Related Literature

2.1 Sustainable consumption of edible insects

Sustainable food production and consumption are among the food business sector's primary management and marketing issues (von Meyer-Höfer, 2015). There is a growing acknowledgement of insects' potential role as a suitable food source in the future, otherwise known as entomophagy (Van Huis, 2013. Mintel, 2015). With climate change and global population growth threatening the sustainability of food systems, organisations seek optimal solutions; insects can provide a sustainable, nutritious and cost-effective resolution (Legendre & Baker, 2021). Offering a higher protein value and production efficiency compared to livestock, using less land and water, opposed to 70% for livestock and contributes minutely to greenhouse gas emissions. Therefore, contributing to the reduction of negative impacts in food production (Dermody & Chatterjee, 2016). This implies that the majority of the population will consume insects for the greater good of the environment. Therefore, it is important to find out what it will take for consumers change their consumption patterns to include edible insects. Insects are a completely natural source providing a less processed alternative with a high protein content, essential fatty acids and mineral richness (Lisbona, 2021. Raubenhimer & Rothman, 2013), making it viable for human consumption. However, little is known about insect-derived foods compared to traditionally eaten proteins. It is also unknown whether some insect proteins may be allergenic, or impact the microbiome in the body (Lisbona, 2021). With all downfalls relating to one's health and safety, there may not yet be enough research to know the consequences of eating insects long-term.

Entomophagy is a customary practise in some nations, with no governmental barriers to production, sale, or consumption. However, laws in Western countries make it difficult to use insects in both feed and meals. Insect produce for human consumption will be classified as a "Novel Food" by the European Food Safety Authority (EFSA), and will require special permission before being commercialised (Dobermann et al., 2017). These regulations are expensive to follow in the UK (Lisbona, 2021), driving selling prices up for profits, costs are also high, due to low demand. However, market forces will help to enable a reduction, with an increased demand in the future. Therefore, currently eating edible insects in Western culture, you are paying for a new experience as an early adopter influencer supporting an emerging industry (Broadbent, 2021).

Cultural influence is defined by boundaries and traits becoming noticeable when comparisons between those who are affected, and those who are not (Hong et al., 2003). Insects can elicit negative reactions in Western societies, with the belief that insects are dirty, disgusting, and dangerous, and remain a taboo topic (Dobermann et al., 2017. Shelomi, 2015). The media enhance this view that insects are inedible through TV shows such as: 'I'm a Celebrity Get Me Out Of Here’, where contestants are forced to eat insects (Dobermann et al., 2017). This represents a challenge, as changing people's food preferences is difficult as they are a central aspect of their lifestyles and socio-cultural environments (Vermeir et al., 2020). It is also shown that where insects lose their "animalness", the idea of eating them is more acceptable (Hamerman, 2016). Proving communication plays a part in the acceptance, letting consumers understand proposed information, such as health and environmental benefits (Rumpold & Langen, 2020). This portrayal signals cultural and social influence upon the acceptance of eating insects.

2.2 Generation Z

Generation Z consists of consumers born from 1995-2009, growing up in the digital world (Passport, 2018). Considered as true digital natives requiring the business world to treat them differently regarding how they purchase products and interact with brands (Olsen, 2017).

It is crucial to target Generation Z as they can frame their food consumption patterns based upon climate concerns (Kymäläinen, Seisto & Malila, 2021). This is because they are diverse, open-minded and socially responsible (Passport, 2018). Prioritising their health when making food choices (Su et al., 2019), driving the better-for-you snacking trend consuming more eggs, meat, fish, fresh fruits and vegetables (Critical, 2016). Their eating behaviours are influenced by their social networks, physical and external environments in both positive and negative ways (Kamenidou et al., 2019).

The environment is the largest concern of Generation Z (Latham, 2021). Therefore, considered one of the most ethical, sustainable and sensitive cohorts, spending 10-15% more on sustainable products, with 73% saying they would pay more for a sustainable product (Robichaud & Yu, 2021). However, there are barriers preventing consumers from buying sustainable produce, such as a lack of trust in the concept of sustainable consumption, costs and availability preventing Generation Z from adopting sustainable eating habits (Kamenidou et al., 2019). This is important for organisations, as young consumers are behind the growth of ethical companies (BBC, 2019). Therefore, organisations must think beyond profits to attract new clients and interact with the increasing consumer market, currently making up 32% of the global population and forming the future of business (BBC, 2019. Su et al., 2019). However, organisations moving towards sustainability will likely struggle with what counts as 'sustainable enough' for price-conscious customers. Until this question is met, sustainable products are likely to remain within 'luxury' goods in a niche sector of sustainability that may fail to penetrate the mainstream market (Pickett-Baker & Ozaki, 2008. Petro, 2020). However, companies can change their focus and take sustainability from a trend into a core value (Su et al., 2019) to successfully target Generation Z.

Individuals liberate themselves from social and cultural bonds related to locality, religion or class norms. With the creation of social meaning and structures are beginning to revolve around consumption activities, a lack of active social engagement and collective decision-making continuously distorts socially optimal decisions (Briceno & Stagl, 2006). Therefore, these interactions are essential and form prominent decision-makers for new products entering the market. Although Generation Z are highly engaged participants in the so-called "experience economy". Prioritising experiences, over material possessions (Mintel, 2020). Indicating that this cohort is open to new ideas and experiences. However, they are heavily influenced by socio-cultural influences, strongly relying upon family and friends for habits, preferences and information. They are influenced by what they see older generations doing parroting this behaviour (Critical, 2016), therefore forming a large part of a social influence. Despite this, young people are open to change (Pickett-Baker & Ozaki, 2008), and 32% of 16-34-year-olds find the concept of high protein products made with insect proteins interesting (Mintel, 2019).

There is a gap in the research on how Generation Z perceives edible insects and a lack of knowledge regarding whether they would purchase them to fit in with their consumption behaviours. Therefore, it is important to find out the socio-cultural impacts affecting consumers' approach towards edible insects, evaluate if the western view on edible insects has impacted their thoughts and options, and find out how they can fit in with sustainable consumption.

# 3.0 Data Collection

3.1 Research Design

Semi-structured and qualitative interviews were carried out in-person and recorded with the participant's consent lasting 20-30 minutes depending on the participant's responses; these were then transcribed. This worked as all participants were local to the researcher, and it was convenient to meet personally to interview. Semi-structured interviews were chosen over structured interviews, as they allowed flexibility in the dialogue to meander around the topics on the agenda (Adams, 2015), allowing the researcher to probe, paraphrase and build a rapport on encouraging an in-depth discussion (Rossetto, 2014) to get the highest quality data. Taking qualitative data over quantitative data was preferred as it makes it easier to compare the different perceptions and behaviours, focusing research on exploring, examining and describing people (Orb, Eisenhauer & Wynaden, 2001). Allowing for more thorough insights into the topic (Wilson, 2011). Using the qualitative data, thematic analysis is carried out to develop codes to identify various themes, therefore focusing on identifying and describing both implicit and explicit ideas (Guest, MacQueen & Namey, 2011).



3.2 Participants

To recruit participants, a non-probability convenience sample was used. This was chosen due to enabling the sample's high accessibility, therefore interviewing individuals the researcher directly knew. This sampling method worked in favour as it allowed access to the demographic for this research study (Wilson, 2011). The people the researcher knew fit into Generation Z and were aged between 18 and 25 to be interviewed ethically. Due to participants being familiar, it was easy to ask if they would participate. When taking the interview, there was less time spent on introductions and building rapport. Therefore, interviews complied with time limitations.

3.3 Ethics

The research taken for this study adhered to the Oxford Brookes University's Ethical Code of Conduct. Ensuring confidentiality, safety, dignity and rights were all taken into practice, with participants providing consent forms and being fully informed about the research study before participation.

# 4.0 Findings and discussion

Awareness

From analysing the findings and depicting various codes, various themes emerged in the data. The first theme to emerge was the perception and understanding of sustainable products. Participants were unclear in what defined a product’s sustainability. Believing that a lack of information restricts them from purchasing such products, participant 3 clarified this by saying "*they need to do more in terms of advertising as education*" to make information more transparent around sustainable products. With participant 2 contributing, "*I don't think sustainable foods are as readily available as some might think*", this may be due to a lack of information on what counts as a sustainable product. Coinciding with what Kamenidou *et al*., (2019) stated, with the barriers of Generation Z purchasing sustainable products holding a lack of trust in the concept of sustainable consumption, costs and availability. Participants' view on sustainability, links with Pickett-Baker and Ozaki (2008), finding that average consumers have less opportunities to form an attitude to sustainable products, than mainstream produce. This may have implications when consumers think of the benefits of edible insects, as they may not understand how sustainable they are.

In the findings, participants were not fully aware of the health and sustainability benefits surrounding edible insects, with most stating they had not seen anything around the topic before in either articles, social media or online with replies similar to participant 3 "*I haven't really seen much about edible insects online, I think it's quite a niche area*" with only participant 1 admitting they had stumbled across a few articles. Participants believed there is a lack of awareness and marketing of insects in the overall market. Therefore, making the topic of entomophagy poorly communicated when marketed to Generation Z. Participants are also unsure of how insects would complement their diets and how they would incorporate them into consumption patterns, with participant 2 saying, "*I don't know if they would supplement my diet enough to replace something*". This proves there is little education around the topic, agreeing with Rumpold and Langen (2020), who stated that the acceptance of insect-based products is likely to increase familiarity with the product and communication of the health and environmental benefits edible insects hold.

Socio-Cultural barriers were another factor that affected participants' views on eating insects and sustainability. Participant 1 contributed, "*I wouldn't say sustainability has been overly embedded in my culture*". Participants readily brought up the normalisation of entomophagy within the western culture. Every participant mentioned that if insects were more widely available, they would show a greater acceptance into the consumer market. Proving that if they are more accepted in society it might help persuade them to purchase and consume edible insects. This would increase awareness of edible insects. Corresponding with Briceno and Stagl’s (2006) process of creation in social structures, as Generation Z lack active social engagement with entomophagy, which distorts their decision-making to make socially optimal decisions.

Emotion

Participants' emotions around exploring new products and experiences showed that they were willing to encounter new experiences both with the foods they eat and within their lifestyles. Participant 2 stated, "it's always nice to try something new". And with participant 6 saying "*I’m not afraid to try different things*”. However, emotions around entomophagy when first asked were varied. The majority being negative emotions of disgust shown by participants 1, 2, 3 and 6, all stating that the thought of eating insects disgusted them, with participant 3 stating “*the thought of it just makes me feel gross*”. Worry was also a fear of participant 2 due to how insects are perceived. These emotions relate to what Dobermann *et al*., (2017) discuss in how insects are viewed as “*dirty*” and “*disgusting*” in the Western psyche.

On the other hand, participant 5 thought the idea of eating insects was “*tasty*” and was curious to find out more, with participant 4 having a similar perception towards the concept. Despite participant’s emotions being disgust and fear at first, they would still be open to the idea of trying insects. Negative connotations were just initial thoughts, with participant 6 saying, “*At first I think disgust, but I’m also not against the idea of eating them*”. It also suggests that if the product didn’t look like you were eating an insect, they would be more likely to consume it. Participant 3 suggested a protein powder linking with what Hamerman (2016) discussed, where insects are more accepted after losing their ‘animalness’. This means that perceptions are not closed off and agrees with the Mintel’s (2020) report seeking new experiences as part of the “Experience economy”. Therefore, this presents an area of marketing within Generation Z as they are curious to try new foods.

Costing

Findings indicated that most participants budgeted when buying food products, with participants 5 and 6 spending more as they are both employed, shown in the participant profile. Therefore, having more disposable income, rather than sticking to a budget. At the same time, the remaining participants are all students. When asked if they would spend more on a sustainable product, participants 1, 2, 3 and 4 all responded that “to an extent” and “within reason”, they would not spend more on sustainable foods. They would spend more, but need to understand the product's benefits before justifying paying extra. Participants 5 and 6 both reasoned that they would be willing to pay higher prices for sustainable products, but it would have to be labelled clearly and highlight the benefits. This could be due to having more disposable income and letting them do more good in society through being sustainable. These findings do not correlate with Robichaud and Yu (2021), believing that 73% of Generation Z are willing to spend more on sustainable products, as most of the participants are unwilling to pay more for a sustainable product. However, findings do coincide with Kamenidou *et al*. (2019) that costs prevent Generation Z from buying and consuming sustainable products. Therefore, edible insects would have to fit into the price ranges that Generation Z are willing to spend on sustainable products.

# 5.0 Conclusion

The research was taken to discover how Generation Z perceived edible insects and the barriers restricting them from purchasing, including socio-cultural influencers that drive their buying decisions. This addressed research objectives 1 and 4, finding that Generation Z’s perceptions and awareness of edible insects were low due to being unfashionable in their cultures. The impact of cost relating to objective 3 was also explored, showing that price plays a significant role. Paying more for a sustainable product can be difficult if consumers don’t know what makes it sustainable and, therefore, cannot justify paying a higher price.

Overall, for Generation Z to buy and consume edible insects, the awareness and education around sustainable products and edible insects as Generation Z believe that sustainable foods are the future of food consumption. Therefore, marketers need to focus on educating consumers on how and why their product is sustainable to justify that higher price category. This can be achieved through social media channels due to Generation Z being true digital natives (Olsen, 2017). This will build awareness and lead to larger social acceptance, hopefully leading to insect products being placed in stores. It would also be beneficial for the packaging to state the health and sustainability benefits to educate consumers further when purchasing a product containing insects.

Limitations of this study are that it only samples a minor proportion of Generation Z, so should be carried out on a larger scale, to achieve a more realistic representation. Research can also be taken to discover insect products' availability in the UK market and how much demand would be necessary for insect-derived products to be brought into UK supermarkets.

As the costs associated with insect-related products for human consumption are high, the government should look into reducing costs related to regulations surrounding them. In turn, this will drive the price of the products down and therefore, becoming better suited to Generation Z market who shop on a budget.

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# Appendices

### Appendix 1 – Original Assignment Brief

You are to conduct a **qualitative study** to address the following question:

**Are consumers eating responsibly?**

**Your task:**

For this assessment, you are required to add to existing research in attitudes of generation Z by exploring the specific topic of ‘sustainable food/beverage consumption”. Your question, in summary, is to:

***“Describe, explain and research the attitudes of Generation Z towards sustainable food/beverage consumption and explore these in a qualitative study in a country of your choice*”.**

There is plenty of research on attitudes towards sustainable consumption across various food and beverage categories. You are therefore required to narrow down by choosing any **ONE** food/beverage category and **ONE** country to focus on. Here are some examples of food and beverage categories you can choose (or you can choose your own):

* Sustainable meat-free products
* Lab-grown meat
* Diary substitutes
* Packaged drinking water
* Vegan ice cream
* Palm oil
* Canned fish

Please note that once you select a food product segment you must **not** focus on any one branded product, but the **food/beverage category** (for example, on sustainable meat free substitutes rather than Quorn). If in doubt about your choice of sector and product segment, please speak with your seminar leader.

You are then required to carry out a qualitative study which includes only **ONE** of the following methodological approaches**:**

|  |  |  |
| --- | --- | --- |
| **Data collection method** | **Number**  | **Duration**  |
| Interviews | 6-8 participants  | Min. 30 minutes |
| Focus Groups | 2-4 (Min. 3 participants in each) | Min. 45 minutes  |

**Assessment criteria**

The assessment criteria are included at the end of this section.

### Appendix 2 – Participant Profile

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Participant no.** | **Dietary Preference** | **Age** | **Gender** | **Occupation** | **Home Location** | **Current Location** |
| #1 | Gluten free | 21 | Male | UG Student | Bristol | Bath |
| #2 | Eats meat | 21 | Male | UG Student | Kent | Oxford |
| #3 | Eats meat | 21 | Female | UG Student | Suffolk | Oxford |
| #4 | Gluten free | 21 | Female | UG Student | Swansea | Oxford |
| #5 | Eats meat | 21 | Male | Employed | London | London |
| #6 | No pork | 21 | Female | UG Student + employed part time | Berkshire | Oxford |

### Appendix 3 – Interview Questions/ Guide

Perception and awareness

1. What is your perception around the consumption of edible insects?
2. Are you aware of the health benefits and sustainability of eating edible insects?
3. What do you think emotionally when you think of edible insects?
4. Do you like to encounter new experiences through trying new food products?

Sustainable consumption patterns and behaviours

1. What are your day to day consumption patterns and behaviours?
2. What type of lifestyle do you have? Do you consciously think about your food decisions?
3. Are you selective about what you buy?
4. Do you think sustainable foods are the future
5. What comes to mind when you think of a sustainable product and lifestyle?
6. Do you buy sustainable food and why?

Impact of cost

1. Does cost play a significant factor when buying food products?
2. Would you pay a higher price for a product if it was labelled sustainable?

Cultural and social influence

1. Has anything impacted your opinion on edible insects? E.g. campaigns/ TV/ influencers
2. Has your upbringing impacted your view on sustainability and edible insects?
3. Is there anything that would persuade you to eat edible insects?

### Appendix 4 – Participant General Themes From Interviews

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Question** | **Participant 1** | **Participant 2** | **Participant 3** | **Participant 4** | **Participant 5** | **Participant 6** |
| Perception and awareness |
| What is your perception around the consumption of edible insects | Knows that it is a growing industry. Not a strong perception but has read articles but was not something they actively searched for.  | Seen a lot in China, insects are seen as dirty creatures “I think people are worried about putting them in their mouth and eating them.”Seen them eaten in different cultures. “people sort of shiver at the idea of doing so” | Insects are seen as dirty and would not consider eating them | Edible insects is something they have always wanted to try. Is aware they are eaten in different cultures and has seen a documentary on them. “Fascinated me” | Edible insects are not currently embedded in our own culture, however there is potential for us to explore | They believe that it is something sone in other cultures however not here. There are also negative stereotypes around them being branded as dirty and disgusting |
| Are you aware of the health benefits and sustainability of eating edible insects | Is somewhat aware of the health benefits of edible insects and is a push towards a more sustainable diet | “I don’t know if they would supplement a diet enough to replace something”. Somewhat aware of the heath benefits but hasn’t seen enough. Not seen anything in social media. Not been mainstream due to the connotations bought from consumption of insects. Knows that insects are sustainable which entices them to want to know more | Not aware of the sustainability benefits but is aware of health benefits. Worries about how much you would need to have in order to substitute meat and to get the nutritional benefit. However believes that if everyone began to eat insects it may counteract the benefits due to the need for mass farming | Unaware of the health benefits they have, but knows that they are good and contain protein. | Not aware of the health benefits, has not seen this marketed. Because no in their interests they have not seen or followed anything related to it or seen anything | Not aware of the benefits surrounding insects, and hasn’t read anything on it or seen anything on social media. They are unsure on how beneficial they would be for them in their diet |
| What do you think of emotionally when you think of edible insects | Not afraid of them and is open minded with the ideas. Would need to be small insects | “Worried” down to different perceptions of different insects, some worry them less. “I still think there is a long way to go with the public image of insects” Different opinion for different insects | “the thought of it just makes me feel a bit gross” | Would not want to see the head of an insect as that clarifies that they are eating an animal and that puts them off. Would also depend on the insect as different emotions link to different insects | “Tasty”, just like eating any other meat or fish. Curious to find out more. | Firstly disgust, then on the other hand intrigued. Would rather consume them when they are unrecognisable  |
| Do you like to encounter new experiences through trying new food products | Not great at trying new things, sticks to what they know. Although tries new things through their friends and network, then if liked they will incorporate It into their diet | Yes likes to try new things however thinks that insects are testing the boundaries. | Open to trying new things. Would potentially try insects in the future would need a lot of persuasion | Is open to trying new foods and concepts. Has tried various exotic foods which we don’t eat in British culture so therefore isn’t opposed to trying insects. | Is open to trying new foods and considering edible insects | Always up for trying new products. Likes to know what different things taste of, would be up for a different food experience |
| Sustainable consumption patterns and behaviours |
| What are your day to day consumption patterns and behaviours | Is gluten free due to coeliac, so food products will have to evolve around this. Heavily meat based diet. Price doesn’t affect eating habits. Tends to snack | Heavily meat based diet. Worries that if they cut down on meat, where they would get all their nutrients from | Eats a balance of vegetarian and non vegetarian meals as this is better from themselves as well as the environment. Likes to buy local produce | Has to eat gluten free due to coeliac therefore has to find substitutes. If they are to try new foods they have to be certain they don’t contain gluten. Eats a lot of fresh ingredients and makes everything from scratch due to doing so with family. Cooking from scratch reassures them that they can eat the product and knows it will not contain gluten. Makes sure to eat 5 fruits and vegetables a day. Avoids red meat | Eats routine meals which are not that adventurous, typically eats meat in their meals | Shops once a week, always incorporates meat into their diet. Tends to buy frozen vegetables for convenience due to lasing longer. However will buy fresh meat due to the taste |
| What type of lifestyle do you have? Do you consciously think about your food decisions | No particular food decisions other than gluen free, eats what they desire. Therefore there is little consideration. Aims to eat their 5 a day and have a balanced diet. Looks at the nutritional value to reduce the amount of fatty and sugary foods  | Reasonably active, is trying to make their diet healthier. Does not pay much attention to the nutrition of food though, bases his options on current knowledge of food nutrition. ‘think if I saw something and it, it had on its labelling that it was high in protein or something, it would be more of a selling point to me’. | Likes to eat nice food thet they enjoy rather than fuelling on less nutritional products and foods. Has an active lifestyle so needs to make sure they fuel their body with the right foods that are going to benefit them. Sometimes consumes protein powder | Very active to help ADHD and keeps busy. Makes sure to eat well to fuel the active lifestyle to not get rundownDoesn’t really know or understand food nutrition when buying food. However does know certain aspects and eats lots of fresh fruit and veg. Has to think about iron content due to anaemia so researched products to fulfil this | Fairly active and likes to eat well or they feel bad in themselves. Sticks to the same products when shopping, will occasionally buy something that catches the eye | Goes to the gym a fair amount and likes to fuel their body therefore tries to consciously include protein as this makes them feel stronger. When shopping they doesn’t consciously think about buying sustainably. Looks for convenience when shopping for food, often using online shopping |
| Are you selective about what you buy | Has to be selective due to taking a gluten free diet | Very stuck in their own ways with what they like to eat, but is interested in trying new things but would need to know more. | Is not very selective however makes sure to buy locally sourced produce, but other than that does not think about the sustainability of a product. | Always takes a list to map out meals and ingredients they want so if often selective also has to make sure they are buying gluten free products, “I always look at the ingredients within those meals” | Tends to buy higher quality foods and products | Picks up the cheapest products due to not liking food shopping. Will buy fresh fruit and meat, looks to buy some branded products  |
| Do you think sustainable foods are the future | Yes. They understand that current consumption patterns and behaviours are unsustainable, linked with eating high amounts of red meat | Definitely. Believes red meat is unsustainable | “in order to save the planet, and help battle climate change, we all need to eat a bit more sustainably and try new sustainable foods” | “I think sustainable food is definitely the future. It's just a matter of how you make everybody happy and make it more sustainable” Thinks about farmers as this is something she has been bought up around and doesn’t want them to be out of jobs. | Definitely. “It is our generation who needs to change and make sustainable diets more welcome”  | Definitely, “I think that's definitely on us as consumers”. The food industry needs to come up with more innovative ideas in order to contribute to the environment and making consumers more educated on sustainable products |
| What comes to mind when you think of a sustainable product and lifestyle | “Living within one’s own means, and not causing any degradation or any impacts for future generations”.  | Something that you can maintain for weeks on end. Something where doesn't endanger your planet by having it and you also get your nutritional benefit benefits. Also believes health pays a part in food sustainability. Benefiting the planet by not eating as much meat due to bad heath and environmental effects | A meat alternative and a diet with little red meat. Farming animals correctly. Small things you can do regularly to help the environment such as using reusable items. “People changing their current, like patterns and lifestyle patterns, and switching them to more sustainable things” | Thinks of solar panels and electric cars buying locally sourced fresh produce. Making tweaks to current consumption patterns to make it more sustainable, making changes to the small things. Making sure everything is still here for future generations | “Where you're thinking about the greater effect of what your actions” | “Doing what you can with what you have and not buying things that you don't need to buy”.Carrying out recycling and not contributing to food waste where you can, and only buying enough for what you need |
| Do you buy sustainable food and why | Doesn’t actively buy sustainable foods. If they could have sustainable food at a competitive price, it would come into consideration more, however is not top of the priorities. | Doesn’t currently but would like to in the long term. Doesn’t think that sustainable foods are as readily available as some might think | Tries to, however is unclear when a product is sustainable. This needs to be made clearer and more transparent to consumers therefore, being more educated. “I think they need to do a bit more in terms of their like advertising, especially on like social media, because obviously, like, our generation uses that platform a lot” | Buys lots of fresh vegetables as a replacement to meat, which can be seen as more sustainable due to being less processed | They think that a sustainable indicators mean higher quality, this is what they look for when shopping, so they are not directly looking for sustainable products but is looking for good quality | Doesn’t buy sustainable foods, lack of information holds them back from doing so |
| Impact of cost |
| Does cost play a significant factor when buying food products | Works to a budget when buying food | Likes a bargain, however due to not partying and drinking quite as much would be happier to pay more on food items | Works to a budget and therefore buys cheaper foods, generally fresh fruits ad veg is cheaper so will buy them | Due to gluten free products being more expensive cost isn’t considered quite as much they have to spend more to be able to eat properly “tend to buy more of the fresh vegetables or fruits because I know that cheaper then my buying premade”  | Pays more for their food as they look for quality items | Plays quite a large part in the products that they buy, however does not always consider this, as they want the product to be nice. |
| Would you pay a higher price for a product if it was labelled sustainable | To an extent they would pay more | Not sustainable for the planet as that doesn’t come into consideration. However if it had benefits for health they would pay more. All within reason | If the product looked nicer and more fresh compared to the cheaper unsustainable option they would pay more. | “Unless I knew that I would benefit from it, or I knew of the benefits of it. I don't think I would.”Would need to be more educated on what a sustainable product was before they spend more on it | Would pay more for a product within reason if it was labelled as sustainable | Would pay more if it was labelled correctly and  |
| Cultural and social influence |
| Has anything impacted your opinion on edible insects | Read a number of articles of the use in animal foods, however they have not yet kicked off in the consumer market. The influence of I’m a celeb put them off the idea of insects. Not seen much marketing around the area of edible insects. | Doesn’t think its been pushed enough on TV. Believes people will judge them if they were to start eating insects due to not being socially acceptable. Shows such as I’m a Celeb portray insects as a punishment | TV shows such as I’m a celebrity where they make insects look awful therefore giving them a bad reputation. If they fit into our social norms they wouldn’t think twice and would eat insects. | Watching documentaries that show edible insects in a positive light, learning more about them and that other cultures are willing to eat them. However would need to know that the insect had been reared properly and been fed a diet that wouldn’t effect the health of humans, they also need to be marketed clearly to really know what you are buying | There is a depiction that insects are dirty and disgusting this is shown on TV shows however they believe that is is our culture that has the largest influence |  |
| Has your upbringing impacted your view on sustainability and edible insects | “I wouldn't say sustainability has been particularly overly in embedded in my culture”. Views sustainability of more of an up and coming theme, which has led to more awareness | Edible insects were never part of their upbringing. Sustainable in the way of planting trees, not what they ate. | Only really something that cam into consideration halfway through childhood. But their family would do small things where they could to help. Inscets were fed to their chickens making them think that they wouldn’t want to eat something like that. | “My upbringing has impacted the way I think about food or what I cook”Younger sister had an impact on view of sustainability which changed the habits within the household which has led them to carry on with this whilst living away from home. “she's more aware of unconscious of like, how it's going to impact future generations” | I think my parents were quite good, they would also buy high quality produce which is why I now buy in that way. However they would have never bought edible insects into our diet. |  |
| Is there anything that would persuade you to eat edible insects | Getting the environmental view across, being labelled more clearly. Having something to aid the use of edible insects such as a cookbook making their inclination to purchase insects more likely. Would need to be clear marketing of the product so you know exactly what you are getting  | If society went more into the way of eating insects and became more socially acceptable. “if they looked more acceptable, more edible”. “Getting over the fear of the unknown” | “add insects or like integrated into a protein powder. That might be a bit more appealing”. If they inderstood the health benefits and it was made clear about what you were eating | Seeing them more widely available in shops as this will show that is is more accepted within society and makes it easier than going out of your way to find a website that sells them.Raising the awareness and availability and making the population more educated on the benefits of edible insects for both health and sustainability | If everyone was consuming them it would make it easier to get hold of and also more socially acceptable  |  |