



Title: Exploring Consumer Perceptions on Meat Alternative Products

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DECLARATION

I declare that this research project is my own work. It is submitted in fulfilment of the requirements for the degree of BA Honours in Strategic Brand Communication at the IIE's Vega School. This work has not previously been submitted to another University or any institution of higher learning. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

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Date: 29 November 2021

ABSTRACT

Sustainability of the environment as well as the health and nutrition of consumers are some of the main global concerns right now. The aim of this research is to explore how vegetarian and vegan consumers perceive the consumption of meat alternative products in Cape Town. This knowledge will assist the researcher to determine whether vegetarian and vegan consumers believe that the consumption of meat alternative products has any impact on the sustainability of the environment and the health and nutrition of consumers. A semi-structured interview schedule that was developed from the literature review, probed whether the consumption of meat alternative products had any impact on the health of consumers and the sustainability of the environment. The interview schedule also probed the role played by the brands that manufacture meat alternative products in creating awareness. In-depth interviews were conducted with six participants, five of which are vegan with one being vegetarian. In this study, the researcher investigates sustainability of the environment and nutrition as the major cause of moving towards meat alternative products. The researcher also investigated health concerns as a reason to move towards meat alternative products, attitudes towards meat alternative products, meat alternative product brands as well as consumer willingness to pay for meat alternative products. The investigation discovered that consumers that follow a vegan and vegetarian diet are aware of meat alternative products. The study however discovered that consumers following a vegan and vegetarian diet prefer to consume meat alternative products sparingly as they believe they are highly processed and are not as nutritious as plant based proteins such as legumes.

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1. INTRODUCTION

1.1. Contextualisation

This research wants to understand the consumers' perceptions on meat alternative products in Cape Town. In Germany, proposals for a reduction in meat consumption have been made due to inefficient resource usage per protein ingested, as well as greenhouse gas emissions from animal farming (van der Weele, Feindt, van der Goot, van Mierlo and van Boekel, (2019). These are in line with concerns about dietary and public health issues such as zoonosis, veterinary antibiotic use, and epidemiological links between red and processed meat consumption and colon cancer or cardiovascular disease (van der Weele, Feindt, van der Goot, van Mierlo and van Boekel, (2019). Researchers in the Netherlands also found that meat consumption significantly contributes to negative environmental effects (Michel, Hartman and Siegrist, 2020). In order to mitigate these environmental effects, the approach of substituting meat with meat-alternative products was explored. Studies conducted in the Netherlands have also revealed that there is a low consumption of meat alternative products (Michel, Hartman and Siegrist, 2020).

These findings have been backed up by other scholars who have had similar findings in Canada, Australia and India (Marinova and Bogueva (2019). According to Marinova and Bogueva (2019) Australia is one of the countries with a high annual meat consumption per capita. High meat consumption, on the other hand, has been linked to negative effects on the planet's ecological systems, as well as potential negative effects on human health, primarily cancer risk. People continue to consume meat-rich diets despite scientific evidence of a negative relationship between the consumption of animal-based products and planetary health (Marinova and Bogueva (2019).

According to Van der Weele et al., (2019) while a "protein transition" to meat alternatives is technologically and organizationally feasible, meat's high social status, established economic interests in the meat chain, a lack of technological know-how on novel (plant) protein foods, and the optimal use of all by-products in the meat chain all pose barriers to making the transition more sustainable. This adds to the challenge of consumers moving away from a meat diet towards a meat alternative diet (van der

Weele et al., 2019). With this background in mind, the researcher wants to find out the perceptions of consumers in Cape Town on meat alternative products.

1.2. Rationale

The sustainability of the environment and nutrition are some of the reasons why consumers have chosen to follow a plant based diet. In a plant based diet these consumers substitute meat with meat alternative products (Estelle, Hughes and Grafenauer, 2021). According to Lynn (2018) there is a high global demand for meat and not enough resources to meet that demand. The meat industry uses up a lot of land and water which makes this industry a large contributor to climate change (Lynn, 2018). Sanchez-Sabate, Badilla-Brioness and Sabaté (2019) agree that meat consumption is a major contributor to global warming and environmental degradation. As a result of this, Australian researchers have suggested that one of the solutions to this challenge is a transition to a plant- based diet by consuming meat-alternative products (Estelle et al., 2021). Therefore, the rationale for this study is that understanding the perceptions of consumers on meat alternatives is critical to facilitating a shift towards a more environmentally friendly food consumption (Possidónio and Piazza, 2021). A study on consumer perceptions in a South African context will enable more people to have a choice of consuming food in a way that is friendly to the environment.

1.3. Problem Statement

According to van der Vyver, Potgieter and Barnard (2020) there has been an increase in plant-based diets globally however, there seems to be a very small number of South African consumers who are willing to switch to a plant-based diet. Michel, Hartman and Siegrist (2021) conducted an investigation in Germany and found that the low consumption of meat alternative products was due to negative perceptions consumers had about the products. This is because consumers in Germany associated meat alternative products with processed meat (Michel et al, 2021).

This was also found to be a problem in the Netherlands. Onwezen, Bouwman, Reinders and Dagevos (2019) state that in the Netherlands, supermarkets and restaurants have embraced meat alternative products and offer them to their customers. Despite this trend, market shares remain low for these alternative proteins (Onwezen et al., 2019). Weele, Feindt, van der Goot, van Mierlo and van Boekel (2018) believe that in the Netherlands, there is a resistance towards moving to meat alternative products even though consumers are aware of sustainability and health issues. He, Evans, Liu and Shao (2020) were also not satisfied with the acceptance level of meat alternative products in Canada. Marinova and Bogueva (2019) also encountered a similar problem in Australia which has a very high consumption of meat and very low consumption of meat- alternative products and plant based foods.

1.4. Purpose Statement

Recently there has been a lot of talk on sustainability of the environment and health. Weinrich (2019) states that global research in sustainability has brought the health aspect to the fore. In the investigation, Weinrich (2019) found that consuming a partly vegetarian diet of one or two meals weekly will nutritiously be of advantage to the consumer. According to Marinova and Bogueva (2019) meat alternative products are plant-based foods that imitate the taste, look and feel of meat. Some meat alternative products are highly processed and not nutritious and consumers are cautioned to choose carefully when buying these products. The purpose of the study is to investigate consumers' perceptions of nutritious meat-alternative products that can be used as a substitute to meat. This concept document aims to address a gap in studies regarding the subject of meat alternatives. The outcome of this study will contribute to the body of knowledge regarding consumers' perceptions of meat-alternative products.

1.5. Research question

1.5.1. Primary research question

- Are consumers in Cape Town aware of meat alternative products and the benefits of consuming them?

1.5.2. Secondary research questions

- Are meat alternative products brands creating enough awareness of the products?
- Do consumers understand the impact of meat alternative products consumption on the environment?

1.6. Objectives

- To determine whether consumers are aware of meat alternative products and what the ingredients contained in them.
- To establish the role of the brands who sell these meat-alternative products in creating awareness of these products.
- To ascertain whether consumers understand the impact consuming meat alternative products has on the environment.

2. LITERATURE REVIEW

2.1. Conceptualisation

2.1.1. *Healthy lifestyle*

The World Health Organisation (1999) defined a healthy lifestyle as a way of living that minimises the risk of getting sick and early death. It states that the reasons for early deaths like coronary disease can be prevented by adopting a healthy lifestyle. The World Health Organisation (1999) also defines a healthy lifestyle as a way of living that allows a person to enjoy more aspects of their life and helps the whole family to get the best out of each other (World Health Organisation, 1999). Onwezen et al. (2021) claims that there is a convincing body of evidence that shows that over consumption of meat contributes to lifestyle diseases. That is why introducing meat alternative products is encouraged so that consumers can change to eating less meat (Onwezen et al., 2021). Estell, Hughes and Grafenauer (2021) agree that consumers getting most of their protein from plant sources is one of the possible solutions to address the current health challenges. This concept shows that introducing meat alternative products to consumers' dietary habits can contribute towards their healthy lifestyle.

2.1.2. *Meat alternative products*

Rödl (2018) defines meat alternatives products as meat substitutes that include plant based meat alternatives that looks, tastes and feels like meat. Estell et al (2021) added that plant based alternative products mimic the taste, look and feel of animal based products. These meat alternative products are what the researcher seeks to get consumers' perceptions abt. In addition to assessing the awareness of consumers about meat alternative products, the researcher will seek to find out what consumers think of how these meat alternative products taste, look and feel. Meat alternative products are central to the study.

2.1.3. *Brand awareness*

Rossiter (2014) defines brand awareness as the ability of a consumer to identify the brand enough to buy that brand's products. Brand awareness is an important factor

and it leads to brand attitude (Rossiter, 2014). Awareness of the brands that produce meat alternatives will be a major part of the study. The researcher aims to investigate the role brands play in ensuring that there is awareness around meat alternative products.

2.2. Theoretical foundation and how it links to the research problem

The theory of planned behaviour was developed by Ajzen (1985) as an extension of the theory of reasoned action (Montaño and Kasprzyk, 2015). Montaño and Kasprzyk (2015) argue that the theory of reasoned action and the theory of planned behaviour are both concerned with factors that motivate consumers to behave in a certain way. Although the theory of planned behaviour has an added aspect which looks at the perceived control on how consumers behave. These theories suggest that the intentions and attitudes of consumers are influenced by their beliefs, social norms and how they have been socialised (Montaño and Kasprzyk, 2015). These theories fit in so well with this study as it will guide the researcher to explore whether the beliefs of participants and how they have been socialised plays a part in their awareness, feelings and attitudes towards meat alternative products.

Ajzen (2020) claims that when someone assess the theory of planned behaviour they need to first look at the principle of compatibility. This is because the theory of planned behaviour starts with the definition of the behaviour of interest in terms of its target, action, context and time frame. once the behaviour has been defined, all other constructs in the theory must correspond to the behaviour in all four elements (Ajzen, 2020). This theory applies to the researcher's study because the study will assess the interests of consumers in meat alternative products. The study will assess the interests by checking whether participants are aware, what participants think and how they feel about meat alternative products. Therefore, the principle of compatibility influences the behaviour of consumers in purchasing meat alternative products. The researcher will also assess how the consumers' perceptions affect their buying action. This also links in to the principle of compatibility which is central to the theory of planned behaviour (Ajzen, 2020).

Ajzen (2020) argues that the theory of planned behaviour also looks at the consumer's intention to perform the action of buying. He believes that the stronger the intention to buy the stronger the likelihood that the action will follow. However, this intention could be impacted negatively or positively by the consumer's ability to afford the products, lack or availability of time and other factors. This theory will assist the researcher to evaluate whether consumers who are aware of meat alternative products plan on buying them.

2.3. The issue being investigated

2.3.1. Sustainability of the environment and nutrition as the major cause of moving towards meat alternative products

Estell et al. (2021) believe that moving towards consuming plant based meat alternatives could be one of the solution for the current environmental challenges. This is because the consumption of animal based foods has been linked to high emissions of greenhouse gases (GHGe). It is predicted that as a result of food production, land erosion and increasing rates chronic diseases such as type 2 diabetes mellitus and coronary heart disease, by 2050 GHGe could increase by 80% globally (Estell et al., 2021).

The researchers used a cross-sectional self-administered online survey to participants over 18 years of age in Australia. There were 679 participants who qualified to be part of the study. Females constituted 71.1% of the participants. The majority of the participants who make up 56.4% of the study believe that following a plant based dietary pattern does promote good nutrition and is good for the environment. Participants who specified that they consumed meat alternatives for environmental concerns constituted 44.5% of the study (Estell et al., 2021).

Another study conducted by Arora, Brent and Jaenicke (2020) state that studies have recommended dietary behavioural changes that will lead to a reduction of meat intake. This is also influenced by the United Nations' Intergovernmental Panel on Climate Change estimate which place the share of livestock on GHGe between 12-18%. Meat

alternative products have been recommended as a substitute that consumers can use to supplement their reduced meat intake (Arora et al., 2020).

The quantitative study was conducted in Mumbai, India and collected the primary data through face-to-face interviews. There were 424 interviews conducted. Males constituted 72.3% of the sample size while females constituted 26.9% of the sample size. Non-vegetarians constituted 64.7% of the study while vegetarians constituted 35.3% of the study (Arora et al., 2020).

Vatanparast, Islam, Shafiee and Ramdath (2020) conducted a study in Canada which found that plant-based meat alternatives consumers received 12.7% of the daily energy intake in terms of nutrition. It was also found that meat alternative products consumers receive 14.9% protein intake. The study found that red meat provides more protein than meat alternative products. Even when participants were requested to double their meat alternatives, their protein intake was lower than the one received from red meat.

In a study conducted in Australia by Marinova and Bogueva (2019) found that almost all sustainable behavioral and technological changes, such as renewable energy and sustainable transportation, produce co-benefits for global health. They found that reduced consumption of animal-based products, on the other hand, has the most profound and immediate impact on global health. It is no longer possible to ignore the link between the consumption of animal products, particularly meat, and the health of the planet (Marinova and Bogueva, 2019).

According to Michel, Hartman & Siegrist (2021) even though in Switzerland meat eaters agree that vegetarian and vegan diets are healthier for the environment, only a minority of customers regularly purchase meat substitute goods, and the remainder do not consider them.

2.3.2. Health concerns as a reason to move towards meat alternative products

Estell et al. (2021) found that only 28.6% of the participants in the study in Australia consumed plant based meat alternative products for health reasons. In another study

conducted by Vatanparast et al., (2020) a cross-sectional survey data was collected from Canadians in one year in over ten provinces. The study included 34,005,286 participants who were 1 year or older. The study found that in children and adolescents a few males consumed plant based meat alternatives. The study also found that it was households with university graduates that consumed meat-alternative products.

Marinova and Bogueva (2019) have found that there appears to be a very clear and convincing picture that red meat is bad for planetary health because it has a negative impact on human wellbeing. This impact is seen primarily through its association with cancer, and colorectal cancer in particular, and on the planet through its direct impact on land use, fresh water withdrawals, greenhouse gas emissions, including the powerful methane and nitrous oxide and eutrophication (Marinova and Bogueva, 2019).

2.3.3. Attitudes towards meat alternative products

Estell et al. (2021) found that 49.3% of the participants had tasted plant based meat alternatives mostly because of curiosity as a result of how trendy meat alternative products have become. Other participants, who made up 44.5% of the study, consumed meat alternative products as a result of ethical concerns for animal welfare. Tarrega, Rizo, Murcianno, Laguna and Fiszman (2020) also conducted a qualitative study in Spain on attitudes of consumers towards meat alternative products. Participants were between the ages of 18 and 35 years' old who were not following any restrictive diet. There were 251 participants of which 51% constituted of men. Fifty-six participants indicated that they would be willing to introduce meat alternative products to their diet while 106 participants refused to introduce meat alternative products. Participants who had an in-between attitude towards meat alternative products amounted to 89 (Tarrega et al., 2020).

Marinova and Bogueva (2019) found that Australians are a meat-eating nation. Despite a steady increase in the number of Australian adults who self-identify as following a predominantly vegetarian diet, their share remains low at 9.7 percent, according to the 2016 Roy Morgan poll. The researchers believe that this has to do with the fact that Australians love meat and do not want to stop eating it. The study they conducted found that there is a lack of general awareness about the negative

implications to human wellbeing and the health of the natural environment of high meat consumption (Marinova and Bogueva, 2019).

They found that only 10% of the Sydney residents report to be currently following to a predominantly plant-based diet. A great portion of the participants who make up 42% enjoy meat and view meat as a healthy and nutritious choice as opposed to recent dietary guidelines. Other participants who made up 19% of the study believe that meat makes you stronger and therefore associate it with strength. Another portion of participants who made up 18% of the study associated meat eating with culture and family traditions. Only 29% of the respondent indicated awareness of the negative impact of livestock on planetary health and even within this group, a large portion which make up 88% consume meat. Even though these researchers found a sign of some changes with regards to the diet towards a more plant-based diet in Australia, their extent is not big enough to significantly transform the current trends and prevent further negative impacts from people's preference for meat (Marinova and Bogueva, 2019).

2.3.4. Taste, texture, appearance and ingredients of meat alternative products

Estell et al. (2021) report that 53.9% of the participants believed that the ingredients that the products are made from are an important factor. Participants who make up 57.3% of the study believe that the texture of the product plays an important role. A review of previous literature conducted by Sha and Xiong (2020) has found that successful meat alternative products are ones that taste like meat. It has been found that taste as well as the texture of the meat alternative product contribute as motivators for meat consumers to change their behaviour and substitute some of their meat intake with these meat alternative products.

Michel et al. (2021) stated that in Switzerland, regular consumers of meat alternatives regarded them as superior than meat in terms of flavour, texture, appearance, and smell, while moderate users of meat alternatives offered balanced scores, but were more favourable about meat. This is why it has been found that consumers who like meat want meat alternative items that look like meat; however, the more they like meat alternative products, the less they want them to look like meat (Michel et al., 2021).

2.3.5. Product brand

Estell et al. (2021) reported that participants in this study believed that the meat alternative product brand was not important.

2.3.6. Willingness to pay for meat alternative products

Arora et al. (2020) used a latent class model (LCM) to estimate the willingness of the participants to pay for meat alternative products. Participants were separated into four classes, class 1 being the lowest LCM and class 4 being the highest LCM. Out of these four classes, class 3 who constituted 32% of the study, showed a positive coefficient to plant-based meat alternatives (Arora et al., 2020). Tarrega et al. (2020) also found that the fifty-six participants who were willing to introduce the meat alternative products in their diets were willing to buy the 100% vegetable burgers.

Michel et al. (2021) found that in Switzerland consumers raised concerns about the price of meat alternative products. Both consumers who regularly eat meat alternative products and those who don't eat them agree that meat alternative products should be cheaper than meat (Michel et al, 2021). Price and convenience has been cited by participants in Switzerland as a barrier to the consumption of meat alternative products (Michel et al., 2021). Participants believe that the perfect meat substitute should be less expensive, have more protein, vitamins, and have fewer calories (Michel et al., 2021)

2.3.7. Gaps and flaws in the literature

The researcher realised that there have not been any studies or reviews on consumers' perceptions on meat alternative products conducted in Africa as a continent, South Africa as a country and in the city of Cape Town. Secondly, some of the literature the researcher reviewed used quantitative research which failed to explore the feelings, thoughts and perceptions of the participants. Another shortcoming in these studies was the lack of mentioning the role the brands which produce meat alternative products play in the influencing the perceptions of consumers. Although most of the studies focus on the nutrition, health and

environment factors they don't fully address the perceptions of employees, particularly their purchasing decisions of meat alternative products.

3. RESEARCH DESIGN AND METHODOLOGY

3.1. *Research Paradigm*

The researcher has used the qualitative research approach. Qualitative research as explained by Ryan (2018) uses the interpretivist approach, which believes that the differences between objects and people should be respected when conducting research. This approach is applicable to this study as it has provided an in-depth understanding into consumers' thoughts on the subject. The researcher has also applied the ontology tradition in this approach.

3.2. *Interpretivism*

The literature review has scrutinised the problem using the interpretivism paradigm with ontological assumptions. du PlooyCilliers (2014) argues that the interpretivism paradigm is concerned with studying human beings within a social sciences environment. They believe that interpretivism is addressing the shortcomings of the positivism paradigm that is concerned with natural sciences and studies that are done in a laboratory (du Plooy-Cilliers, 2014). The interpretivism paradigm is more relevant to this study as it sought to gauge the awareness, thoughts and feelings of consumers through their perceptions. Interpretivism also believes that people should be studied in the environment in which they live in. This is because an interpretivist wants to understand why humans behave the way they do. They also want to gain an in-depth understanding of the person they are researching which might mean that the researcher spends a lot of time with the person they are researching (du Plooy- Cilliers 2014). This is why in this study the researcher has conducted in-depth interviews with the participants. The participants' responses have assisted the researcher to gain a better understanding of what they know, feel or think.

3.3. *Ontology assumption*

The researcher has used an ontological position of interpretivism. According to Kivunja and Kuyini (2017) the ontology paradigm questions what is real and what is knowable. The ontology looks at the researcher's underlying belief system about what is real. The researcher's assumption assisted when the researcher was looking at the research problem and its importance. This has helped the researcher to find a solution to this problem. That is why this ontology assumption is important to this interpretivism paradigm. It assists with providing context of what is real and known (Kivunja and Kuyini, 2017). This ontological assumption has also assisted as the researcher looks at what other researchers found to be real in the studies that are reviewed in this literature. This ontology has assisted the researcher to gauge what is real and knowable when interacting with participants who shared their perceptions of meat alternative products.

3.4. *Population and Sampling*

3.4.1. *Population*

According to Welman, Kruger and Mitchell (2005) individuals, groups, organizations, human products and events, as well as the conditions to which they are subjected, make up the population. The primary research question seeks to determine whether consumers living in Cape Town know what meat alternative products as well as their benefits. In order to get answers to this question, the researcher focused on the unit of analysis which is the individual consumer of meat alternative products living in Cape Town. The study was restricted to consumers of meat alternative products living in Cape Town. This is because Cape Town is an urban city that has a variety of consumers with different dietary preferences. Odunitan-Wayas, Okop, Dover, Alaba, Micklesfield, Puoane, Uys, Tsolekile, Levitt, Battersby, Victor, Meltzer & Lambert (2018) state that food environment and socioeconomic status are thought to have a large influence on food choice behaviours. In Cape Town, supermarkets are visited by more than 90% of the population and have been identified as a role player in providing local access to healthy food (Odunitan-Wayas et al., 2018).

3.3.1.1. Targeted population

The targeted population for the exploration of consumer perceptions on meat-alternative products was consumers of meat alternative products between the ages of 18 and 44 years living in Cape Town. This age group is more likely to make independent choices about the food they consume. According to recent research conducted by the U.S. market research firm Packaged Facts, younger consumers, particularly those aged 18 to 44, are most likely to purchase and consume plant-based meat products (Ho, 2020).

3.3.1.2. Accessible Population

The accessible population for this study was consumers aged between 18 and 44 years of age living in Cape Town. These are individuals who have finished Grade 12 and are either studying towards a university qualification, have graduated or are employed. The population of this study is made up of vegetarians and vegans. Choosing this population allowed the researcher to interview participants who might be aware of meat alternative products as they do not consume meat. Interviewing this population allowed the researcher to go more in-depth when asking questions related to the consumption of meat alternative products. This has also allowed the researcher to find out the perceptions of meat alternative products for those consumers who are aware of meat-alternative products.

3.3.1.3. Population Parameters

According to Western Cape Government (2020) the population of Cape Town is at 459 8785 people made up of 232 1185 females and 227 7600 males. The researcher was unable to conduct a study on every consumer that lives in Cape Town and targeted a certain sample of the population based on parameters that make those consumers suitable for this study.

The population parameters of this study included consumers between the ages of 18 and 44 years of age who are consumers. The population parameters also included:

- Consumers between the ages of 18 and 44 years of age who consumes a vegetarian or vegan diet. According to Sloan (2021) one third of consumers

aged 18 – 44 years who dine in restaurants are choosing vegetarian and vegan entrées as their first choice on menus. This is why the researcher focused on this population parameter.

- Consumers between the ages of 18 and 44 years who live in Cape Town. According to Cape{town}etc. (2020) Supermarkets such as Pick 'n Pay and Checkers are doing as much as they can to supply the growing demand for vegan, plant-based, meat-free and dairy-free options. This is why the researcher has focused on Cape Town for this research.
- Consumers who have access to smart phones, computers and internet connectivity such as Wi-Fi or data. This is because the researcher conducted in-depth interviews with participants via WhatsApp calls and Zoom, which required internet connection and a smart phone or computer.

The researcher conducted the in-depth interviews in this manner because that is what the participants preferred. The researcher had planned to conduct the in-depth interview via Google Meet or Zoom but participants requested to either do in-person interviews, do interviews via WhatsApp call and Zoom interviews. The researcher could only conduct one interview in person and had to conduct three via a WhatsApp call and two via Zoom to accommodate participants. The researcher had planned to conduct the interviews via Google Meet or Zoom due to the social distancing that is necessitated by the Covid-19 global pandemic.

3.3.2. Sampling

3.3.2.1. Sampling Technique

The researcher used the snowball sampling technique for this study. In a snowball sampling technique, the researcher must approach a few people from the relevant population in the first phase. These people then serve as informants, identifying other members of the same population for inclusion in the sample (Welman et al., 2005).

Snowball sampling is a non-probability sampling technique in which the samples have uncommon characteristics. For this study, the researcher used a non-discriminative snowball sampling technique where the first participant that was interviewed recommended two referrals which were also interviewed. These people then serve as

informants, identifying other members of the same population for inclusion in the sample (Welman et al., 2005)

The researcher chose to use the snowball sampling technique because of how difficult it was to gain access to participants who are familiar with the subject of meat alternative products. The researcher requested the first participant to recommend more participants that meet the criteria of the targeted population. The participant requested two more participants who were interviewed by the researcher. In turn, each of these participants also referred one person each that the researcher could interview for the study. The researcher reached out to those consumers and conducted in-depth interviews two more participants that were referrals.

3.3.2.2. Sampling size

The researcher conducted in-depth interviews with 6 participants. The researcher chose this sample size as it was very difficult to access participants who are willing to participate in the interviews on the meat-alternative products.

3.5. Data collection methods

3.5.1. Data collection

The researcher used a qualitative data collection method in a form of a semi-structured questionnaire, which contained both open and closed-ended questions. According to Maree (2020) in research projects, semi-structured interviews are frequently used to corroborate data from other data sources. It rarely lasts a long time and is usually based on a line of inquiry developed by the researcher prior to the interview (Maree, 2020).

The semi-structured questionnaire ensured that more information is gathered from the participants. The semi-structured questionnaire was used as a tool when the researcher was conducting in-depth interviews with the participants. The realities of the participants differed from one another when it came to the subject of consumption of meat alternative products. The semi-structured questionnaire afforded participants an opportunity to voice their realities. An in-depth interview is a qualitative data

collection method that allows the researcher to ask participants questions in order to learn more about their perspectives, opinions, and beliefs about a specific phenomenon. Interviews are a type of conversation in which the primary goal is to gather information through open-ended questions (du-Plooy-Cilliers et al., 2014).

The in-depth interview, using a semi-structured questionnaire as a tool, is applicable to this study on consumer perception on meat alternative products, as the researcher wants to know the perceptions of consumers about meat-alternative products. Understanding the opinions, and beliefs of the participants on meat alternative products will give the researcher an opportunity to interpret and understand the meaning of the answers to specific questions (du-Plooy-Cilliers et al., 2014).

3.4.2. Application of data collection methods

Firstly, the researcher sent the consent forms via e-mail to the first participant who agreed to participate on the study. This ensured that the participant understood the purpose of the research and gave them an opportunity to give consent to be interviewed. The first participant was given an alphabetical letter to identify them. The researcher inquired from all the participants which digital platform were they comfortable to use. Four of the participants wanted to use WhatsApp, one participant wanted to meet face to face and one participant chose to use Zoom. The participant who wanted a face to face interview requested for the interview to take place at her home as she had a suitable venue that was private. This participant was also given an alphabetical letter as a form of identification. This was to protect the participant's identity.

The first participant the researcher interviewed was a vegetarian. This participant referred three more participants who also follow a vegetarian lifestyle. Two of these participants also referred a participant each which made the total number of 6 participants. Each participant was labelled in an alphabetical order. The participants were labelled from A - F.

In each interview, the researcher began by explaining the purpose of the research to the participant. The researcher proceeded with the interview by posing demographic questions to get basic information about the participant. This gave the researcher

insight into where each participants fits into the population without exposing the identity of the participant

The researcher then asked the participants more general questions about meat alternative products which allowed the researcher to gauge how aware the participants are about the topic. Thereafter, the researcher proceeded to ask specific questions including their understanding of the benefits of meat alternative products. This allowed the researcher to link answers to this question to the main research question of this study which seeks to understand whether consumers are aware of meat alternative products and their benefits.

The researcher also enquired from participants who have consumed meat alternative products, the reasons behind their decision to consume meat alternative products. The researcher also asked participants whether they believe there is sufficient marketing of meat alternative products. The responses to this question allowed the researcher to gain an understanding that assisted in answering the secondary research question of this study which seeks to understand whether meat alternative product brands are creating enough awareness about their products.

The researcher also asked participants questions about the impact consumption of meat alternative products has on the environment. Responses to this question assisted in answering another research question of this study which seeks to find out whether consumers understand the impact of meat alternative products consumption on the environment. The researcher also gave the participants an opportunity to add whatever input they believe is relevant to the exploration of consumer perceptions on meat alternative products. Further input from participants assisted the researcher to gain information that will enrich the study.

The in-depth interviews were conducted over a period of two weeks. This was due to the fact that an appointment had to be scheduled for each interview at a time that is convenient for both the researcher and the participant. Each interview lasted for approximately 30 minutes.

3.6. Data Analysis Methods

3.6.1. Data analysis

The researcher has used thematic content analysis as a qualitative data analysis method. The data that has been collected will be analysed and firstly arranged by the various themes that arise from it. Kiger & Varpio (2020) describe thematic analysis as a qualitative data analysis method that involves searching across a data set to identify, analyse, and report on repeated patterns. Welman et al. (2005) agrees that one of the most fundamental tasks in qualitative research is theme identification. Themes are "umbrella" constructs that are typically identified by the researcher prior to, after, and during data collection (Welman et al., 2005).

Kiger & Varpio (2020) explain that thematic analysis can highlight the social, cultural, and structural contexts that influence individual experiences, allowing for the development of knowledge that is constructed through interactions between the researcher and research participants, revealing socially constructed meanings. The method of analysing data links in perfectly with the interpretivism paradigm that is relevant to this study. The in-depth interviews allowed the researcher to learn a lot about the participants through the interaction.

3.5.2. Application of data analysis methods

When analysing the data, the researcher firstly explained the sampling technique that was used which is snowball sampling. The researcher also detailed the how and where the each interviewed was conducted. This included explaining that four interviews were conducted and recorded via a WhatsApp call, one was conducted at the home of a participant and one was conducted on Zoom. After all the interviews were conducted, the researcher transcribed all of them separately, labelling them according to the alphabets. The researcher then read the data until they were familiar with the content. The researcher then arranged the data into the themes that had emerged from the literature review conducted by the researcher.

After the researcher had arranged the data into themes, a process of coding the data in order to make sense of it began. Codes are tags or labels that provide meaning to raw data collected during fieldwork. These tags or labels are used to retrieve and

organize text chunks in order to categorize them based on specific themes (Welman et al, 2005). For this study the researcher used pattern coding. This is due to the fact that data was collected through in-depth interviews and pattern coding connects the various sections of the text and assists the researcher in creating a meaningful whole (Welman et al., 2007).

The researcher used a deductive approach when analysing the data. This approach allowed the researcher to start analysing the data from the general to more specific content. Du-Plooy-Cilliers et al., (2014) surmise that when conducting a deductive qualitative content analysis, the researcher employs a conceptual framework derived from relevant theories which are general to identify several specific codes within the text, which are grouped into several specific themes. Using the deductive approach assisted the researcher to use the concepts that emerged from the literature review as a guide in analysing the data that has been collected.

The researcher defined each code and ensured that each code does not overlap with other codes while fitting logically within the larger coding framework (Kiger & Varpio, 2020). The researcher can begin the process of creating an audit trail to support the trustworthiness of a researcher's interpretations and analysis by recording how codes developed from observations and ideas (Kiger & Varpio, 2020).

When coding the data, the researcher ensured that the codes and themes that emerge accommodate all the data that has been collected. The researcher also created a miscellaneous category to allow for the data that does not fit into any of the themes that the researcher has created. The researcher also ensured that the categories are distinct and do not overlap onto others. This is to ensure that no theme can be placed in different categories. The researcher also ensured that the themes are specific so that even someone who is not familiar with the themes can be able to understand how they are structured (duPlooy-Cilliers et al., 2014).

4. FINDINGS AND INTERPRETATION OF FINDINGS

4.1. Characteristics of respondents

The researcher conducted in-depth interviews with six participants. Of the six participants, three were female and three were male. The researcher wanted a balanced view which is why there was an equal number of participants from both genders. All six participants reside in Cape Town and identify as African.

Participant A is female, 40 years old, Grade 12 is her highest qualification, and is employed. Participant B is male, 35 years old, has an Honours degree in Quantity Surveying, and is employed. Participant C is male, 31 years old, has a post-graduate diploma, and is currently employed. Participant D is female, 28 years old, has a BSC Honours Degree, and is employed. Participant E is male, 21 years old, and is completing his final year of a Bachelor of Arts Degree. Participant F is female, 20 years old, and is currently completing her final year of a Bachelor of Arts degree at one of the universities in Cape Town.

Characteristics of Respondents					
A	B	C	D	E	F
					
Participant A Age: 40 Gender: Female Grade 12 Employed Diet: Vegetarian	Participant B Age: 35 Gender: Male Honours Degree Employed Diet: Vegan	Participant C Age: 31 Gender: Male Post Graduate Diploma Employed Diet: Vegan	Participant D Age: 28 Gender: Female BSC Honours Graduate Employed Diet: Vegan	Participant E Age: 21 Gender: Male University Student Diet: Vegan	Participant F Age: 20 Gender: Female University Student Diet: Vegan

4.2. Finding: Consumers of a vegetarian and a vegan diet are aware of meat alternative products

All six of the respondents are aware of meat alternative products and do consume them. Participant C indicated that he became aware of meat alternative products when he kept seeing the green boxes in the fridges of the supermarkets where he buys groceries. The other respondents indicated that they became aware of meat alternative products when they were introduced to them by friends or family members. All six respondents indicated that the meat alternative brands they are aware of are Fry's, Beyond Burger, Woolworths brand, and Quorn. The respondents indicated that the meat alternative products they are aware of from these brands include burgers, sausages, schnitzels, pies, nuggets, mince, and strips.

- ***Interpretation of finding: Vegan and vegetarian consumers are aware of meat alternative products. Their awareness is mostly as a result of word of mouth.***

This finding by the participants that shows that awareness of meat alternative products is mostly by word of mouth has been echoed by participants in a study that was conducted in Switzerland on meat alternative products (Michel et al., (2021). Michel et al. (2021) found that unawareness has been recognized as one of the key impediments to the consumption of meat alternatives thus far and consumers are likely to adapt their eating habits as a result of an influence from their peers. According to Michel et al. (2021) in Switzerland, even though meat eaters agree that vegetarian and vegan diets are healthier for the environment, only a minority of customers regularly purchase meat substitute goods, and the remainder do not consider them.

- ***Finding in context: Awareness of meat alternative products***

This study has found that consumers are more likely to consume meat alternative products after they have seen their peers or family members consuming them. Michel et al. (2021) found that participants in Switzerland indicated that they are likely to consume meat alternative products when they see their peers consuming them.

4.3. Finding: Respondents' attitudes towards meat alternative products

Five of the six respondents said the main reason for following a vegetarian or vegan diet was to lead a healthy lifestyle. They stated that they believe that leading a plant-based diet protects one from diseases such as hypertension, diabetes, and other comorbidities. Participant B said religion was the main reason for changing his diet and health was a secondary reason. He holds the view that there are many people who consume meat who can lead healthy lives as long as they exercise and eat a balanced diet. Therefore, his reason is faith-based rather than health-based.

- ***Interpretation of finding: There are some negative attitudes towards meat alternative products due to them being processed food***

Two of the respondents said they consumed meat alternative products once a week while four of the respondents said they consumed them maybe once or twice a month. The four respondents who indicated they consumed meat alternative products once or twice a month said they prefer to consume plant-based protein such as legumes rather than the meat alternative products as they felt that meat alternative products are processed and therefore not as nutritious as legumes. The four respondents indicated that when they do consume meat alternative products it is out of convenience.

Michel, Hartman, and Siegrist (2021) investigated participants in Germany and found that the low consumption of meat alternative products was due to negative perceptions consumers had about the products because consumers in Germany associated meat alternative products with processed meat. The respondents echoed the same negative perception towards meat alternative products as consumers from Germany, as they indicated that they want to consume a purely plant-based diet. However, the respondents indicated that they would consume meat alternative products if they were at an event or place that only had them as an option.

- ***Finding in context: Attitudes towards meat alternative products***

This investigation has found that the attitudes of respondents towards meat alternative products are shaped by their beliefs and socialisation. Participant B indicated that his

main reason for following a vegan diet is his religious beliefs and ethical considerations to animal welfare. This ties in with a study conducted in Australia which indicated that some participants consumed meat alternative products for ethical reasons. Estell et al. (2021) found that 44.5% of the participants in Australia consumed plant-based meat alternatives products as a result of ethical concerns for animal welfare.

The other five respondents indicated that their main reason for consuming meat alternative products was to lead a healthy lifestyle, as they believe consumption of meat can cause various diseases in the body. When these findings are observed in the context of the theory of planned behaviour, it becomes clear that beliefs and socialisation have influenced the respondents. According to Montaña and Kasprzyk (2015), the theory of planned behaviour indicates that the attitudes of consumers are influenced by their beliefs, social norms, and how they have been socialised.

The theory of planned behaviour also looks at the customer's intention to buy products (Ajzen, 2020). Although four of the respondents have alluded to trying to cut back as much as possible from consuming meat alternative products, they have indicated that they would still consume them if there is no other alternative or if it is more convenient to do so. This is while the other two participants have indicated that they buy regularly buy meat alternative products as they consume them weekly. Ajzen (2020) argues that the theory of planned behaviour also looks at the consumer's intention to act for buying. He believes that the stronger the intention to buy the stronger the likelihood that the action will follow. However, this intention could be impacted negatively or positively by the consumer's ability to afford the products, lack of availability of time, and other factors (Ajzen, 2020).

The issue of the price of meat alternative products was raised by two respondents, participants' B and C, in the context of them not being affordable to everyone. A box of Fry's plant-based golden crumb schnitzels costs R54.99 at Checkers. This box only contains 4 schnitzels inside (Checkers, 2021). Participant C had raised the issue of affordability as being another reason why meat alternative product brands were not advertising their products in mainstream media.

4.4. Finding: Retail stores and brands that consumers prefer to buy meat alternative products

All six respondents indicated that they buy meat alternative products from Pick 'n Pay, Checkers, Spar, and Woolworths. Four of the respondents said they prefer the Fry's brand while the other two respondents said they preferred the Beyond Burgers brand. All six respondents believe that meat alternative products are not marketed sufficiently by their brands. Five of the respondents believed meat alternative products' brands should do more to market the products. They said they only saw posts from the brands on Instagram and online when they search for them. One recipient said the brands could conduct market segmentation to target the consumers who can afford meat alternative products and would be willing to try them out.

- ***Interpretation of finding: Could not ascertain the market share of meat alternative products in Cape Town***

The researcher found that four of the respondents preferred the Fry's brand while two of the participants preferred the Beyond Burgers brand. Participant B who is one of the respondents who prefers the Beyond Burgers brand also indicated that he enjoys the Quorn brand and buys it when he cannot afford to buy the Beyond Burgers brand. This is in contrast to a study in Australia that found that reported that participants believed that the meat alternative product brand was not important (Estell et al., 2021).

In the Netherlands, it was found that although supermarkets and restaurants have embraced meat alternative products and sell them to their customers, market shares remain low for these alternative proteins (Onwezen, Bouwman, Reinders, and Dagevos, 2019). Unfortunately, the researcher was unable to interview anyone from the supermarkets and restaurants that sell meat alternative products in Cape Town, to ascertain how the market share is in Cape Town or South Africa. The researcher was unable to get access to anyone who could state with authority how low or high the market share of meat alternative products is in Cape Town.

4.5. Finding: Taste, texture, appearance, and ingredients of meat alternative products

All six respondents found the taste and texture of the meat alternative products interesting at first and enjoyed their taste. All respondents mentioned enjoying Fry's products as they were the first meat alternative products they were introduced to.

- ***Interpretation of finding: Taste, texture, and appearance of meat alternative products helped in the transition from a meat diet***

The researcher found that the respondents did not have an issue with the texture, appearance, and taste of the meat alternative products. All six respondents indicated that the taste, texture, and appearance of meat alternative products helped them to transition smoothly from a meat diet to a vegetarian and vegan diet. This is because meat alternative products are made to taste, look and feel like meat. Respondents particularly mentioned the Beyond Burgers and the Woolworths brands like the ones whose products looked and tasted similar to meat. This finding was echoed by participants in Switzerland who regarded meat alternative products as superior than meat in terms of flavour, texture, appearance, and smell (Michel et al., 2021). It has also been found that consumers who like meat want meat alternative items that look like meat; however, the more they like meat alternative products, the less they want them to look like meat (Michel et al., 2021).

- ***Finding in context: Technology seems to have improved the taste, texture, and appearance of meat alternative products***

All six of the respondents said they didn't have an issue with the taste or texture of meat alternative products. They said the meat alternative products helped them to transition very well from eating meat to becoming vegetarian or vegan, mainly because they tasted and felt like meat. An interesting insight that emerged was from participant C, who said it looks like the advancement of technology has improved the production of meat alternative products and has led to them tasting, looking, and feeling more like meat. The Beyond Burger brand was regarded as the brand whose meat alternative products mimicked the taste, look, and feel of meat by all the respondents.

Estell et al. (2021) also found that 53.9% of the participants in Australia believed that the ingredients that the products are made from are an important factor. Participants who make up 57.3% of the study believe that the texture of the product plays an important role. A review of previous literature conducted by Sha and Xiong (2020) has found that successful meat alternative products taste like meat. It has been found that taste, as well as the texture of the meat alternative product, contribute as motivators for meat consumers to change their behaviour and substitute some of their meat intake with these meat alternative products.

4.6. Finding: Role of sustainability of the environment in the consumption of meat alternative products

All six of the participants said the sustainability of the environment was not the main reason they consume meat alternative products. Sustainability was a secondary reason after health. One participant said they had realised the importance of sustainability after watching a documentary on the impact of meat-eating on the environment.

- ***Interpretation of findings: Sustainability is not the main reason for the consumption of meat alternative products***

Five of the respondents indicated that they consumed meat alternative products mostly for health reasons while one respondent stated that it was for religious reasons. This finding corresponds with a finding from the Netherlands that discovered that there is a resistance towards moving to meat alternative products even though consumers are aware of sustainability and health issues (van der Weele, Feindt, van der Goot, van Mierlo and van Boekel, 2018). However, the researcher discovered a correlation only in the aspect of sustainability as five of the respondents indicated that health is what influenced them to follow a vegetarian or vegan lifestyle.

- ***Finding in context: Sustainability of the environment and nutrition as the major cause of moving towards meat alternative products.***

Despite this, respondents did say that once they became aware of the impact of meat consumption on the environment they became more conscious about the sustainability

of the environment. Does this finding answer one of the research questions that sought to know whether consumers understand the impact of meat alternative products consumption on the environment? In the context of sustainability, the consumption of meat has been linked to high emissions of greenhouse gases.

Estell et al. (2021) state that the consumption of animal-based foods has been linked to high emissions of greenhouse gases (GHGe). It is predicted that as a result of food production, land erosion, and increasing rates of chronic diseases such as type 2 diabetes mellitus and coronary heart disease, by 2050 GHGe could increase by 80% globally (Estell et al., 2021). Marinova and Bogueva (2019) have also found that there appears to be a very clear and convincing picture that red meat is bad for planetary health because it harms human wellbeing. This impact is seen primarily through its association with cancer, and colorectal cancer in particular, and on the planet through its direct impact on land use, freshwater withdrawals, greenhouse gas emissions, including the powerful methane and nitrous oxide, and eutrophication (Marinova and Bogueva, 2019).

4.7.1. Research question - Main research question

Research Question	Concept	Theme Name	Explanation	Quotes from interviews	Objectives
Are consumers in Cape Town aware of meat alternative products and the benefits of consuming them?	Healthy Lifestyle	Health concerns as a reason to move towards meat alternative products	Some meat alternative products are highly processed and not nutritious and consumers are cautioned to choose carefully when buying these products.	Participant C: "Not big on meat alternatives as they are highly processed" "Trying to stick to a whole foods diet" "meat alternatives are a healthier alternative to eating meat which has hormones"	To determine whether consumers are aware of meat alternative products and the benefits of consuming them.
Finding	The researcher found that five of the respondents are following a vegetarian or vegan diet because they want to lead a healthy lifestyle. The respondents are aware that meat alternative products are highly processed and that is why they don't consume them regularly, however they see them as a great transition product from a meat diet to a vegetarian/vegan diet.				

4.7.2. Research sub-question 1 - Research question

Research Question	Concept	Theme Name	Explanation	Quotes from interviews	Objectives
Are meat alternative products brands creating enough awareness of the products?	Brand awareness	Product brand	Rossiter (2014) defines brand awareness as the ability of a consumer to identify the brand enough to buy that brand's products. Brand awareness is an important factor and it leads to brand attitude (Rossiter, 2014). Awareness of the brands that produce meat alternatives is a major part of the study. The researcher aims to investigate the role brands play in ensuring that there is awareness around meat alternative products.	Participant A: "I have never seen an advert for meat alternative products on TV or in magazine. I have only seen them on Instagram or online when I search for them."	To establish the role of the brands who sell these meat-alternative products in creating awareness of these products.
Finding	The researcher found that all the respondents believed that the lack of advertising meat alternative products on television and other traditional mediums like magazines could be the cause of the lack of consumption of these products in South Africa.				

All respondents said meat products are often advertised in mainstream media yet they have never seen an advert of meat alternative products on television. Two respondents revealed that some of their friends or family members were surprised the first time they saw them eating meat alternative products as they did not know such products existed. This ties in well with the problem identified in this research which

states that although there has been an increase in plant-based diets globally, there seems to be a very small number of South Africans who are willing to switch to a plant-based diet (van der Vyver, Potgieter and Barnard, 2020).

4.7.3. Research sub-question 2

Research Question	Concept	Theme Name	Explanation	Quotes from interviews	Objectives
Do consumers understand the impact of meat alternative products consumption on the environment?	Sustainability	Sustainability of the environment and nutrition as the major cause of moving towards meat alternative products.	The sustainability of the environment and nutrition are some of the reasons why consumers have chosen to follow a plant-based diet. In a plant-based diet these consumers substitute meat with meat alternative products (Estelle, Hughes, and Grafenauer, 2021)	Participant B: "Sustainability is. Important but it is not the main reason" "have watched various documentaries that depict the terrible treatment of animals that are to be slaughtered"	To ascertain whether consumers understand the impact consuming meat alternative products has on the environment.
Finding	Consumers became aware of the impact of meat consumption on the environment after becoming vegetarians or vegans. However, none of the respondents consume meat alternative products as a result of the sustainability of the environment.				

4.8. Trustworthiness of the research

4.8.1. Trustworthiness

du-Plooy-Cilliers et al., (2014) state that in qualitative studies, trustworthiness is the overarching term that is used for validity and reliability. Therefore, the researcher focused on trustworthiness for this investigation as validity and reliability are used for a quantitative study. Trustworthiness is further divided into credibility, transferability, dependability and confirmability (du-Plooy-Cilliers et al., 2014). Maree (2021) agrees that trustworthiness is very important in qualitative research. How a researcher analyses the data has an impact on trustworthiness. du-Plooy-Cilliers et al., (2014) state that the credibility of the body of research is determined by how the data analysis and interpretation are presented. The researcher was open and honest in unpacking the data analysis and interpretation, and provided the reader with the necessary insight and understanding.

4.8.2. Credibility

Maree (2021) explains that the issue of credibility is concerned with the following questions: How congruent are the findings with reality? How can I be certain that the reader will accept my findings? Maree (2021) also believes that the development of an early familiarity with the participants and the participating organizations also improves credibility. For this study the researcher established credibility by ensuring that the data collection method which is in-depth interviews and the data analysis method which is a thematic content analysis are established methods in research (Maree, 2021). Conducting in-depth interviews ensured that the researcher spends time with the participants and was able to gain more insight from the opinions and other content they offered in above responding to the questions that are posed. DuPlooy-Cilliers, et al., (2014) explains that when the researcher spends extended periods of time with the participants in order to better understand them and gain insight into their lives, the researcher's credibility grows. While conducting the interview, the researcher kept asking the participants to verify that the information they have given has been captured correctly. This is another way that the researcher ensured credibility. For this study the researcher used the option of verifying while conducting the interview. This is because sending the transcripts back to the participants for

verification after the interview has been conducted might have taken more time and delayed the researcher. The researcher also ensured that there is a detailed description of the topic that is being investigated. Maree (2021) states that the use of a detailed description of the phenomenon under consideration adds to the credibility.

4.8.3. Transferability

Transferability, as opposed to generalisability, encourages readers of research to draw parallels between elements of a study and their own experience or research (Maree, 2021). To improve transferability, qualitative researchers should consider how typical the participants are to the context under study as well as the context to which the findings apply (Maree, 2021). du-Plooy-Cilliers et al., (2014) explains that the ability of the findings to be applied to a similar situation and produce similar results is referred to as transferability. This would allow for generalisation within a method that does not lend itself to generalisation. To ensure transferability occurs, for this study the researcher provided an in-depth understanding of the context (Maree, 2021). This makes this study transferable as the knowledge gathered from this study as well as the information in the literature review could be used by other researchers who are exploring perceptions of consumers on meat alternative products.

4.8.4. Dependability

Maree (2021) states that in qualitative research, dependability is used instead of reliability. Du-Plooy-Cilliers et al., (2014) explains that the quality of the integration process that occurs between the data collection method, data analysis and the theory generated from the data is referred to as dependability. The researcher ensured that there is consistency in how the data is collected and analysed how the theory from the literature review is generated. The semi-structured questionnaire that was used during the in-depth interviews was used for all the participants. Even though the participants were interviewed at different times and on different platforms such as zoom, WhatsApp and in-person, they were recorded the same way and a journal was kept where the content was recorded the same way. This consistency has ensured that there is dependability.

4.8.5. Confirmability

Confirmability refers to how well the data collected supports the researcher's findings and interpretation. It indicates how well the findings are derived from the data. In order to assist others in scrutinizing the research design, the researcher must have fully described the research process (du-Plooy-Cilliers, 2014). Confirmability is also defined as the degree of neutrality, or the extent to which the findings of a study are shaped by the participants rather than the researcher bias and the need for the researcher to admit their own disposition (Maree, 2021). The questions in the in-depth interview aim to get the information that is necessary for the researcher to understand consumers' perceptions on meat-alternative products. The researcher conducting this study has a supervisor that oversees the work of the researcher. Any bias or inferences of bias were eliminated and do not form part of this study. This has ensured that whatever data has been collected and findings that are interpreted are neutral and unbiased.

5. CONCLUSION

In conclusion, the researcher found that consumers living in Cape Town who follow a vegetarian or vegan diet are aware of meat-alternative products. They are also aware that meat alternative products are highly processed and that is why they don't consume them regularly; however, they see them as a great transition product from a meat diet to a vegetarian or vegan diet. The researcher also discovered that meat alternative product manufacturers need to perform more advertising because consumers learn about meat alternative products through word of mouth. Furthermore, the study found that consumers become conscious of the environmental consequences of meat eating after becoming vegetarians or vegans. However, none of the respondents consume meat alternatives as a result of environmental sustainability.

The researcher also found that the respondents living in Cape Town echoed the same sentiments as consumers in Germany who associated meat alternative products with processed meat. The researcher discovered that this is one of the reasons that respondents consume less of meat alternative products as they regard plant based protein such as legumes as healthier than meat alternative products. However, the researcher learned that meat alternative products are a great substitute for meat when consumers who are vegans or vegetarian are at an event or place that only has them as an option. The researcher also found that meat alternative products are a great way of assisting consumers to transcend from a meat diet to a vegetarian or vegan diet.

The goal of this research was to address a gap in studies regarding the subject of meat alternative products in Cape Town. This was so that the study would contribute to the body of knowledge regarding consumers' perceptions of meat-alternative products. These findings will assist researchers who are exploring consumer perceptions on meat alternative products to get a Cape Town perspective on the subject. The researcher also gained insight into consumers' perceptions on meat alternative products in Cape Town which has closed the gap of knowledge in the area of meat alternative products in South Africa. The contribution of this study increases and offers a different perspective that will be beneficial to other researchers.

5.1. Ethical implications and how they were addressed

5.1.1. Informed consent

The researcher ensured that participants are formally informed about the study they are participating in and that they should give consent of being participants in the study. Participants were requested to sign a consent form that has been kept confidential and has only been seen by the researcher. The researcher has ensured that participants clearly understand what is expected of them during the participation by explaining the process the in-depth interview will take beforehand. Participants were informed that their identities will be protected as the researcher will use alphabetical letters to identify the participants instead of their names. The researcher also ensured that participants are aware of risks that are involved in taking part in this study and the manner in which the data collected will be used. Participants were given a right of refusal to be part of the study and their information was used only after they gave written consent (du-Plooy-Cilliers et al., 2014).

5.1.2. Collecting data from participants

The physical and psychological comfort of participants was made a priority when the researcher conducted the in-depth interviews. The participants were informed of how their identities and sensitive information will be protected. They were informed that they will be referred to by alphabetical letters in the study. The researcher ensured that participants will not answer embarrassing questions where other people will hear them. The researcher ensured that the interviews are conducted in a private area where the participants felt free to answer the questions. The researcher was punctual and arrived on time for the interviews to ensure that the participants' time was not wasted. The researcher was also on time during Zoom and WhatsApp interviews. The semi-structured questionnaire was not too long.

5.1.3. Dealing with sensitive information

The researcher has protected any sensitive information from the participants that arose during the course of the interview. The researcher did not show any bias towards any answers that are provided by the participants.

5.1.4. Providing incentives

The researcher did not provide any incentives to the participants as this might have distorted the responses they gave which might have led to a distorted study. Incentives affect how people participate in the study because people may feel they need to answer in a certain way in order to get the incentive. Du-Plooy-Cilliers et al., (2014) state that researchers can use incentives but they should rather be as a token of appreciation rather than large gifts. They should also be incentives to the rest of the population within which the researcher is conducting the study (du-Plooy-Cilliers et al., 2014).

5.1.5. Avoiding harm

The researcher avoided causing harm to participants by not asking them questions that might have caused them to recall emotionally painful memories which might have caused them emotional and psychological harm. The researcher did not ask questions in a group setting that would have led to one participant being embarrassed in front of other participants. The researcher also avoided creating a situation where any future career prospects of a participant will be harmed.

5.1.6. Confidentiality and anonymity

The researcher ensured anonymity by not recording any name of the participants and by ensuring that nothing in the data collected will point back to them. The questions in the in-depth questionnaire were asked in a way that does not reveal the identity of the participant. The researcher ensured that there is confidentiality by ensuring that the information from the participants is known only by the researcher. The questionnaire was filled using the alphabetical letter, however the researcher has a list that matches the alphabetical list with the participant. That list is only known by the researcher. This list will enable the researcher to identify the participant if ever the researcher is required to do so.

5.1.7. Deception

To avoid deceiving the participants the researcher was upfront about every detail of the study. The researcher gave the participants the specific details of what was required from the study.

5.2. *Limitations of the study*

du-Plooy-Cilliers et al. (2014) define limitations as any problems that might affect the research. A limitation is anything that threatens the validity of the study (du-Plooy-Cilliers et al., 2014). For this study, the researcher conducted in-depth interviews with 6 participants. This is due to the fact that South Africa was under lock-down level 3 as a result of the Covid-19 pandemic when the researcher conducted the interviews. The lockdown made it difficult to find participants who were willing to participate in an in-depth interview with the researcher. Another limitation that has resulted in the researcher to only interview 6 people is the fact that the topic of meat-alternative products is not a popular topic and there are a few people who are aware of the subject. This made it difficult for the researcher to explore consumer perceptions from a big group of consumers. Another limitation of this investigation was that it was looking to explore the subject of meat alternative products amongst consumers who consume a vegetarian and vegan diet.

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7. ANNEXURES

7.1. CONSENT FORM

Explanatory information sheet and consent form for participants
To whom it may concern, My name is Nonyaniso Faith Ndenze and I am a student at Vega School of Brand. I am currently conducting research under the supervision of Samuel Enow about the consumer perceptions on meat-alternative products in Cape Town. I hope that this research will enhance our understanding of how consumers think and perceive meat alternative products in Cape Town. I would like to invite you to participate in my study. In order to explain to you what your participation in my study will involve, I have formulated questions that I will try to fully answer so that you can make an informed decision about whether or not to participate. If you have any additional questions that you feel are not addressed or explained in this information sheet, please do not hesitate to ask me for more information. Once you have read and understood all the information contained in this sheet and are willing to participate, please complete and sign the consent form below.
What will I be doing if I participate in your study?
I would like to invite you to participate in this research because your responses will assist me to gain an insight into how consumers perceive meat-alternative products. If you decide to participate in this research, I would like you to participate in an in-person interview where I will be asking open-ended and close-ended questions on this subject. You can decide whether or not to participate in this research. If you decide to participate, you can choose to withdraw at any time or to decide not to answer particular interview questions.
Are there any risks/ or discomforts involved in participating in this study?
Whether or not you decide to participate in this research, there will be no negative impact on you. There are no direct risks or benefits to you if you participate in this study. You might, however, indirectly find that it is helpful to talk about your thoughts on meat-alternative products. If you find at any stage that you are not comfortable with the line of questioning, you may withdraw or refrain from participating.
Do I have to participate in the study?
• Your inclusion in this study is completely voluntary; • If you do not wish to participate in this study, you have every right not to do so; • Even if you agree to participate in this study, you may withdraw at any time without having to provide an explanation for your decision.
Will my identity be protected?
I promise to protect your identity. I will not use your name in any research summaries to come out of this research and I will also make sure that any other details are disguised so that nobody will be able to identify you. I would like to ask your permission to record the interviews, but only my supervisor, I and possibly a professional transcriber (who will sign a confidentiality agreement) will have access to these recordings. Nobody else, including anybody at Vega School of Brand, will have access to your interview information. I would like to use quotes when I discuss the findings of the research, but I will not use any recognisable information in these quotes that can be linked to you.

What will happen to the information that participants provide?

Once I have finished all interviews, I will write summaries to be included in my research report, which is a requirement to complete my BA Honours in Strategic Brand Communications. You may ask me to send you a summary of the research if you are interested in the final outcome of the study.

What happens if I have more questions about the study?

Please feel free to contact me or my supervisor should you have any questions or concerns about this research, or if there is anything you need to know before you decide whether or not to participate.

You should not agree to participate unless you are completely comfortable with the procedures followed.

My contact details are as follows:

Nonyaniso Faith Ndenze

[REDACTED]

[REDACTED]

The contact details of my supervisor are as follows:

Samuel Enow

[INSERT TELEPHONE NUMBER OF SUPERVISOR]

[REDACTED]

Participant or respondent consent

I, _____, agree to participate in the research conducted by Nonyaniso Faith Ndenze about consumers' perceptions on meat alternative products.

This research has been explained to me and I understand what participation in this research will involve. I understand that:

- I agree to be interviewed for this research.
- My confidentiality will be ensured. My name and personal details will be kept private.
- My participation in this research is voluntary and I have the right to withdraw from the research at any time. There will be no repercussions should I choose to withdraw from the research.
- I may choose not to answer any of the questions that are asked during the research interview.
- I may be quoted directly when the research is published, but my identity will be protected.

Signature

Date

7.2. Research Questionnaire

Topic: *Exploring consumer perceptions on meat alternative products*

The purpose of the study is to explore consumer perceptions on nutritious meat alternative products that can be used as a substitute to meat. The outcome of this study will contribute to the body of knowledge regarding consumers' perceptions of meat-alternative products.

1. How old are you?
2. What is your gender?
3. What race are you?
4. What is your employment status?
5. What is your highest level of education?
6. Where in Cape Town do you live?
7. Are you familiar with the term meat alternative products?
8. How did you become aware of meat alternative products?
9. Which meat alternative products are you familiar with?
10. Which meat alternative product brands are you familiar with?
11. Have you consumed any meat alternative products?
12. If yes, how often do you consume them?
13. What influenced you to consume meat alternative products?
14. What did you think of the taste and texture of the meat alternative product?
15. Would you consider introducing meat alternative products more regularly to your diet?
16. Why would you introduce them more regularly? If not, why would you not introduce them more often?
17. Which retail stores do you buy the meat alternatives from?
18. Which meat alternative product brand do you prefer?
19. Do you think meat alternative products are marketed sufficiently by their brands?
20. Why do you think so?
21. What motivates you to continue consume meat alternative products?
22. Does the sustainability of the environment play a role in your consumption of meat alternative products?

23.If yes, how do you hope your introduction of meat alternative products contributes to the sustainability of the environment?

24.Do you have any more suggestions or comments about the topic?

7.3. Ethics clearance letter



Vega Ethics checklist: RESE8419/p/w

Student Details												
Title	Prof	☐	Dr	☒	Ms	☐	Mrs	☐	Mr	☐	Mx	☐
First name(s)	Nonyaniso Faith											
Last name(s)	Ndenze											
Title of study	Consumers' perceptions on meat-alternative products											
Qualification	BA Honours in Strategic Brand Communications											

Supervisor Details												
Title	Prof	☐	Dr	☐	Ms	☐	Mrs	☐	Mr	☒	Mx	☐
First and last names	Samuel Enow											

Co-supervisor Details (if applicable)												
Title	Prof	☐	Dr	☐	Ms	☐	Mrs	☐	Mr	☐	Mx	☐
First and last names	Click or tap here to enter text.											

Explaining your research process						
Philosophical paradigm	Positivism	☐	Interpretivism	☒	Constructivism	☐
	Realism	☐	Objectivism	☐	Pragmatism	☐
	Functionalist	☐	Subjectivism	☐	Humanist	☐
	Other:					
Research design:	Interview	☒	Questionnaire (self administered)	☒	Focus group	☐
	Ethnography/ Observation	☐	Artefact analysis/website/ social media analysis	☐	Action Research	☐
	Case Study	☐	Design Research (Practice based)	☐		☐
	Other (if so, state)	☐	Click or tap here to enter text.			
Brief explanation of the population and	The study will be restricted to consumers living in Cape Town. The consumers will be both male and female between the ages of 22 and 40 years. The research will be conducted amongst participants who					

number of participants/items	have a university degree. The participants will be residing in the urban areas of Cape Town.					
Target group sampling methods/artefact (No under 18's or vulnerable groups allowed)	Purposive	☐	Random	☐	Snowball	☒
	Convenient	☐	Stratified	☐	Census	...
	Explain selection process		Click or tap here to enter text.			

Ethics		
Documentation submitted with proposal	Gatekeeper's letter (institutional consent)	☐
	Completed Annexure E if you conduct research on IIE sites/students/staff	☐
	Instrument(s) (interview schedule or questionnaire)	☒
	Participant or respondent consent form	☒
	Audio-visual consent form (if applicable)	☒

Campus ethics committee recommendation	
Proposal has been reviewed by the supervisor and necessary ethics considerations have been included. ☐ Accepted as is and provide letter ☐ Accepted with provisions: Nature of provision: e.g. Instrument is not sufficient / included and need to be signed off by the supervisor ☐ Major issues: Student should not continue with fieldwork. Actions to be taken: Click or tap here to enter text.	
Supervisor signature	
	2021/06/29
Co-supervisor/Campus ethics panel member signature	
	Click or tap to enter a date.

Annexure A: Final Research Report Summary Document Table

TITLE: Exploring Consumer Perceptions on Meat Alternative Products

Research Purpose/	Primary Research	Research Rationale	Seminal Authors/	Literature Review –	Paradigm	Approach	Data Collection	Ethics	Anticipated Findings	References
The purpose of the study is to explore whether consumers are aware of nutritious meat-alternative products. This study aims to address a gap in studies regarding the subject of meat alternatives in Cape Town.	Are consumers in Cape Town aware of meat alternative products and the benefits of consuming them?	Studies have found that there are low consumption levels of meat alternative products worldwide. There are insufficient studies in South Africa around the subject of consumer awareness of meat alternative products	Ajzen, I., 2020. The theory of planned behaviour	Theme 1: Consumers' associations, perceptions and acceptance of meat and plant-based meat alternatives. Theme 2: Plant Protein and Plant-Based Meat Alternatives: Consumer and Nutrition Professional Attitudes and Perceptions.	Paradigm Interpretivism Ontology According to Kivunja and Kuyini (2017) the ontology paradigm questions what is real and what is knowable. This paradigm fits in well with this study as the researcher is trying to gauge the levels of awareness of participants on nutritious meat-	Qualitative	The qualitative data collection method that will be used will be a semi-structured questionnaire, which will contain both open and close-ended questions.	Ethical clearance was sought from the IIE Vega. Written consent was also sought from the participants. Research was on a voluntary basis. The rights and identities of participants were protected. Participants are anonymous for this study and confidentiality has been upheld.	The researcher hopes to gain an understanding of the consumer awareness levels when it comes to nutritious meat alternative products. This will assist the researcher the reasons for the low consumption of meat alternative products.	Marinova, D. and Bogueva, D., 2019. Planetary health and reduction in meat consumption. Sustainable Earth, 2(1). He, J., Evans, N., Liu, H. and Shao, S., 2020. A review of research on plant-based meat alternatives: Driving forces, history, manufacturing, and consumer attitudes. Comprehensive Reviews in Food Science and Food Safety, 19 (5), pp.2639-2656.
						Population Males and females. Age: 20 – 40 years old in Cape Town.				
Research Problem	Secondary Questions/ Hypotheses/ Objectives	Key Concepts	Key Theories	Theme 3: Drivers and Inhibitors in the Acceptance of Meat Alternatives: The Case of Plant and Insect-Based Proteins. Theme 4: Meat alternatives: an integrative comparison	alternative products. This paradigm will also assist the researcher to understand the realities of the participants, which might have an impact on what they know about meat alternative products.	Sampling	Data Analysis Method(s)	Limitations	Anticipated Contribution	
The consumption of meat-alternative products may be low due to the lack of awareness by consumers.	To determine whether consumers are aware of meat alternative products and what the ingredients contained in them.	Healthy lifestyle Meat alternative products Awareness of products	The theory of planned behaviour: The researcher will gain insight on whether the budgets, and income levels of consumers have an impact on their awareness of meat alternative products.			Non-probability sampling Sampling method: Snowball sampling Size: 6	The age, gender and the socio-economic status of the participants. In-depth interviews in person, via Zoom and via WhatsApp..	Covid-19 pandemic has caused the government to put the country under lock down which limits the amount of people that can be interviewed. Few vegetarians and vegans available for interviews.	The study will give a South African perspective of the knowledge and awareness of meat alternative products.	Kivunja, C. and Kuyini, A., 2017. Understanding and Applying Research Paradigms in Educational Contexts. International Journal of Higher Education, 6(5), p.26.

