UNIVERSITY OF LJUBLJANA
SCHOOL OF ECONOMICS AND BUSINESS

MASTER THESIS

CONSUMER ATTITUDES REGARDING MEAT CONSUMPTION

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AUTHORSHIP STATEMENT

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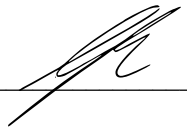
Ljubljana, September 26th, 2023 Author's signature: 

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GHG – greenhouse gas emissions

GHGE – greenhouse gas emissions

UN – United Nations

UK – United Kingdom

1 INTRODUCTION

Over the years, ethical consumerism has played a pivotal role in the pursuit of more sustainable products, businesses, and markets. Ethical consumerism, as defined in the Ethical Consumer Markets Report, refers to the 'personal allocation of funds, including consumption and investment, where choices are informed by specific concerns, whether related to human rights, social justice, the environment, or animal welfare' (Co-op, 2019). In the UK alone, spending by ethical consumers on food, drinks, clothing, and energy has increased nearly fourfold over the past two decades. According to the Ethical Consumer Markets Report of 1999, the value of ethical consumer markets in the UK was £11.2 billion. Fast forward almost two decades to 2018, and that figure had grown nearly fourfold to £41.1 billion. The most significant growth has been observed in Ethical Food and Drink expenditure. Ethical Food and Drink encompasses Fairtrade, organic, vegetarian, and plant-based alternatives, as well as free-range eggs, and it remains the largest segment of the market with an annual expenditure of £12 billion in 2018, compared to just over £1 billion in 1999 (Co-op, 2019).

According to Greenpeace (2018), animal agriculture stands out as a primary contributor to climate change. The food system, which includes changes in land use associated with agriculture, accounts for a quarter of all greenhouse gas emissions. Animal-based products, in particular, are responsible for approximately 60% of emissions related to food production. Moreover, the food system is a major driver of deforestation, responsible for 80% of such activity, with livestock expansion and animal feed production being the primary drivers of this destruction. Notably, animal agriculture can be considered one of the leading causes of biodiversity loss on our planet (Greenpeace, 2018)

In recent decades, numerous studies have raised concerns about the sustainability of meat production and consumption. The majority of reports indicate that current meat production systems are environmentally unsustainable and linked to elevated health risks, including diabetes and heart disease, associated with excessive meat consumption. In developed countries, a growing number of consumers have begun to reduce or replace meat in their diets, driven not only by personal health and environmental considerations but also by ethical concerns regarding animal welfare (Lin-Schilstra & Fischer, 2020).

Most motivations for reducing or eliminating meat consumption can be categorized into two main groups: personal health motivations and moral motivations. Moral motivations encompass concerns for animal welfare and environmental/ecological considerations. Meanwhile, health concerns revolve around the potential health risks associated with meat consumption, such as increased exposure to additives, hormones, and cholesterol levels (De Backer & Hudders, 2015, p. 72).

Other ethical reasons for reducing meat consumption include supporting community development, such as endorsing local suppliers, and promoting fair trade for the benefit of

developing countries. Nevertheless, vegetarians and vegans remain in the minority. In practice, despite many individuals expressing negative sentiments toward farm animal production, meat consumption remains the default choice for the majority of people. This disparity between consumer attitudes and behavior is often referred to as the 'meat paradox,' signifying that while most people object to the killing of animals, they continue to consume meat (Lin-Schilstra & Fischer, 2020, p. 4844)."

In response to the issue of overconsumption of meat products, various dietary approaches have emerged over time. These include veganism, vegetarianism, and flexitarianism. Consumers have become increasingly aware of ethical, environmental, and health concerns, prompting them to pose critical questions about the origin and production methods of their food. As a result, they have adjusted their dietary habits to steer clear of unethical practices, boycott offending industries, and disengage from socially irresponsible firms, among other actions.

Because different types of consumers are at various stages of meat reduction practices or the adoption of plant-based meat, consumer segmentation is an essential practice when promoting these concepts. Effective consumer segmentation assists marketers and product developers in developing their products most efficiently, selecting the appropriate communication strategies, and targeting specific groups with relevant messaging. Through past studies and ongoing research on this topic, marketers can successfully segment their consumers, market their products effectively, and avoid negative reactions within the larger traditional meat consumer segment.

The purpose of this master's thesis is to investigate consumer ethical behavior within the context of meat consumption, drawing from secondary literature sources and conducting empirical research among consumers. The objectives of this thesis can be outlined as follows:

a) To assess consumer awareness of ethical concerns related to meat consumption.

b) To explore consumer motivations for adopting a plant-based diet or reducing/avoiding meat consumption.

c) To examine consumer willingness to decrease or discontinue meat consumption.

My intentions also include categorizing participants into four distinct consumer groups: vegans, vegetarians, flexitarians, and omnivores. This categorization aims to investigate whether motivations for meat reduction or avoidance vary among these different consumer groups. The resulting insights will, in turn, assist marketers in comprehending the diverse consumer segments and inform the development of future marketing strategies. Consequently, a more effective approach might involve adopting a holistic strategy that addresses specific consumer segments rather than focusing solely on the general population.

The master's thesis consists of two main parts: the theoretical and empirical research sections. In the first part, I conducted a comprehensive literature review of both domestic and international scientific and professional sources. The empirical portion is founded on primary research conducted through an online survey questionnaire designed as an experiment.

The questionnaire comprises multiple sections, primarily featuring closed-ended questions. The survey exclusively targeted Slovenian consumers. I analyzed the collected data using relevant statistical techniques. Following the empirical section, the thesis includes a discussion of the survey results, their implications, and the conclusion.

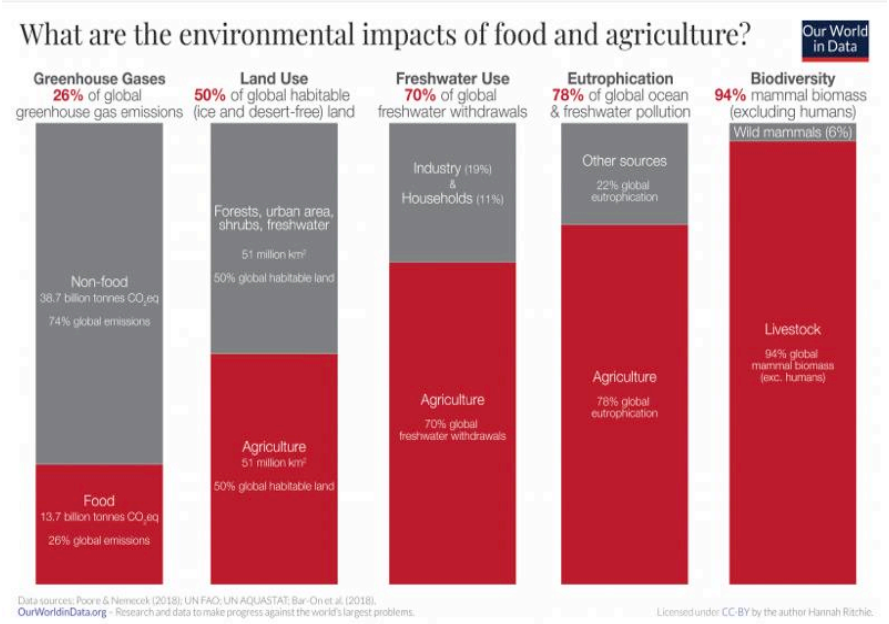
2 LIVESTOCK PRODUCTION AND MEAT CONSUMPTION

This chapter will begin with a brief introduction and overview of current and projected food production and the various environmental impacts linked to the current food system. It will describe how animal agriculture, specifically, contributes to these impacts, including water footprint, GHG emissions, land footprint etc. Current levels of meat production along with its associated consequences will be described both at a global scale and within Slovenia, in order to clearly establish its contributions to a variety of environmental issues, including climate change, land use, deforestation, soil degradation, water use, eutrophication and pollution.

2.1 Environmental impact of livestock production

The environmental impacts of food and agriculture play a significant role in tackling climate change. As shown in Figure 1, Food production accounts for over a quarter (26%) of global greenhouse gas (GHG) emissions, whether half of the world's habitable (ice- and desert-free) land is used for agriculture purposes (Ritchie & Roser, 2020). Furthermore, 70% of global freshwater withdrawals are used for agriculture and 78% of global ocean and freshwater eutrophication (the pollution of waterways with nutrient-rich pollutants) is caused by agriculture. In addition, 94% of mammal biomass (excluding humans) is livestock, meaning livestock outweigh wild mammals by a factor 15-1. Of the 28.000 species evaluated to be threatened with extinction on the IUCN Red List, agriculture and aquaculture is listed as a threat for 24.000 of them (Ritchie & Roser, 2020).

Figure 1: Environmental impact of food and agriculture



Source: Ritchie & Roser (2020).

Greenhouse gas emissions of agriculture

Over the past 171 years, human activities have contributed to the rise of atmospheric concentrations of CO_2 by 48% above preindustrial level found in 1850. This is more than what have happened naturally over a 20.000-year period (Change, 2021). Gases that contribute to greenhouse effect also include water vapour (H_2O), N_2O and CH_4. Greenhouse effect is explained as warming, that results when the atmosphere traps hear radiating from Earth towards space (The Causes of Climate Change, 2018).

Agriculture produces a substantial amount of greenhouse gas emissions (GHG), which contribute greatly to global warming and climate change. But when it comes to tackling climate change, the focus tends to be on 'clean energy' solutions, for example transition to low-carbon transport, improvements in energy efficiency or the deployment of renewable or nuclear energy (Ritchie & Roser, 2020).

Food is responsible for about 26% of global GHG emissions. It can be divided into four key elements (cite here):

- Livestock and fisheries that account for 31% of food emissions

Livestock produces emissions in the process known as 'enteric fermentation', the production of methane through their digestive system.

- Crop production that accounts for 27% of food emissions

21% comes from crop production for direct human consumption and 6% emissions comes from the production of animal feed. They are the direct emissions which result from agricultural production that includes release of N_2O from the application of fertilisers and manure, CH_4 from rice production and CO_2 from agricultural machinery.

- Land use that accounts for 24% of food emissions

Twice as many emissions result from land use for livestock (16%) than for human consumption.

- Supply chains that account for 18% of food emissions

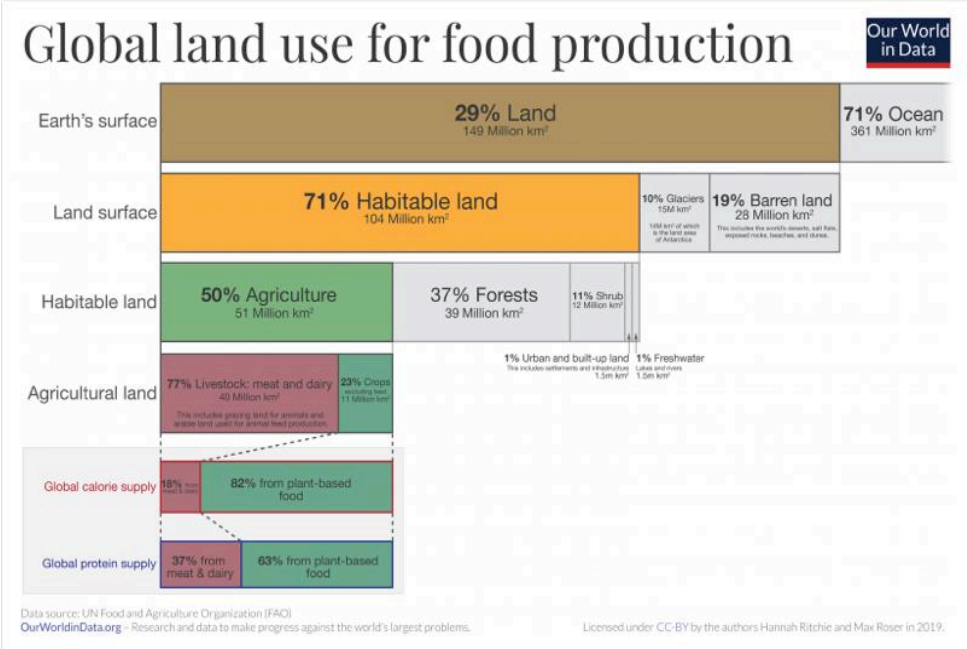
Food processing, transport, packaging and retail. The biggest impact has food waste followed by supply chains and transport emissions (eating local) (Ritchie & Roser, 2020).

Overall, agriculture accounts for an estimated 80% of N_2O emissions globally, mainly from the application of fertilizers - both synthetic nitrogen and manure added to soils or left on pastures. It also accounts for an estimated 45% of total CH_4 emissions, of which 80% are from livestock production.

2.2 Land footprints of livestock production

For much of human history, most of the world's land was wilderness: grasslands, forests and shrubbery dominated its landscapes. Over the last few centuries wild habitats have been transformed into agricultural land. As show in Figure 2, 10% of global land area is covered by glaciers and 19% is barren land (deserts, dry salt flats, sand dunes, beaches and exposed rocks). The remaining 71% is called habitable land, of which 50% is used for agriculture. This leaves 37% for forests, 11% as grassland and shrubs, 1% as freshwater coverage and the remaining 1% of built-up urban area, which includes cities, towns, villages, roads and other human infrastructure (Ritchie & Roser, 2020).

Figure 2: Global land use for food production



Source: Ritchie & Roser (2020).

It is clear there is also a highly unequal distribution of land use between livestock and crops for human consumption. Livestock accounts for 77% of global farming land if we combine pastures used for grazing and land used to grow crops for animal feed (Ritchie & Roser, 2020). In terms of sustainability, it matters whether crops are fed livestock or to humans. Feed efficiencies for livestock are very low when the input of feed crops to the output of meat produced are compared. Livestock only produces 18% of the world's calories and 37% of total protein, even though it takes most of agricultural land (Ritchie & Roser, 2020).

2.3 Water footprints of livestock production

The rise of global population and with that the increase in the consumption of animal products is likely to put further pressure on the world's freshwater resources. Nearly one-third of the total water footprint of agriculture globally, is related to the consumption of animal products. The water footprint of any animal product is larger than that of crop products with equivalent nutritional value (Mekonnen & Hoekstra, 2012).

According to the research titled The Water Footprint of Food (2020), water footprints are composed of three separate calculations:

- Blue water footprint: the amount of surface water and groundwater required to produce an item (for example crop irrigation)

- Green water footprint: the amount of rainwater required to make an item (for example dry farming where crops receive only rainwater)

- Grey water footprint: the amount of freshwater required to dilute pollutants and make water pure enough to meet EPA water quality standards (for example the water would have become polluted from agricultural runoff or leaching from the soil)

For example, in US, agriculture is responsible for 80% of all water consumed. In fact, individual's diet accounts for more than two thirds of one's own total water footprint. That is due to "virtual water" needed to produce one's food. Virtual water is the "hidden" component in a production process that adds up to the total water footprint. To put that in the perspective, for example, a single pound of beef takes, on average, 1.800 gallons of water to produce of which 98% goes to watering the grass, forage and feed that cattle consume over their lifetime. Worldwide consumption of meat and animal products maker 27% of humanity's total water footprint (Water Footprint of Food, 2020).

2.4 Animal welfare issue of livestock production

Animals have played a critical role in agriculture throughout human history. However, now we rather see them as units of production as a part of large interdependent systems, instead of sentient beings. Their welfare and health don't seem to be connected with the health of the whole, rather the main concern is only for the final product. To maximize efficiency and profits, operators of farm factories or so-called concentrated animal feeding operations (CAFOs) are accountable to generally prioritize rapid growth and production over animal health and welfare (Foodprint, 2021).

However, animals have objective and subjective needs. Objective needs are food, water and shelter. While humans satisfy these needs and protect them against diseases, predators and natural disasters, they have failed to meet animal's subjective needs. These are physical, social and emotional needs that do not disappear when their objective needs are met. Meaning, highly intelligent social animals, characterized by curiosity urges to socialize, play, wander about and explore their surroundings. Therefore, humans cause tremendous suffering to farm animals (Harari, 2018).

Bad animal welfare practices can also have other consequences besides animal discomfort and health issues. They can go higher up the food chain, meaning animals subjected to stress or pain are more prone to disease and produce lower quality of meat, milk or eggs. People approach animal welfare from different perspectives and based on various backgrounds. Some choose not to consume animal products at all, while others do so in keeping with a set of ethical standards (Foodprint, 2021).

3 CONSUMER BEHAVIOR REGARDING MEAT CONSUMPTION

Meeting the food needs of a growing global population in a sustainable manner represents a monumental challenge. The choices made by society in addressing this challenge will have profound and far-reaching implications, impacting areas such as public health and climate

change. In today's world, consumers play a pivotal role in driving the expansion of markets for more sustainable products and businesses. These markets are expected to flourish as we enter an unprecedented era of heightened awareness concerning the challenges facing both people and the planet.

3.1 Trends in meat consumption

According to the United Nations' (UN) Agenda for Sustainable Development, climate change stands out as one of the most urgent challenges of our time. Extreme weather events and environmental degradation are impacting people worldwide. Livestock production is a significant contributor to total greenhouse gas emissions (GHGE). Consequently, reducing agricultural emissions can be achieved by fostering changes in consumer behavior, including meat consumption reduction or substituting carbon-intensive beef and lamb with less intensive options like pork and poultry. Beyond reducing GHGE, lowering meat consumption can also enhance public health and have positive effects on precious water resources, biodiversity, and land use (Van de Pas, 2020).

As the global population continues to grow and living standards improve, consumers are purchasing meat more frequently and in larger quantities than ever before. Consequently, there is a continued increase in global demand for meat, particularly in developing regions such as Asia and Africa. However, a growing number of consumers are either reducing their meat consumption or completely eliminating it from their diets. This trend is driven by concerns related to health, animal welfare, and the environmental impact of meat consumption. In addition to Europe's vegetarian and vegan communities advocating for plant-based diets, there is a rising number of 'flexitarians' who have significantly reduced their weekly meat protein intake (Van de Pas, 2020).

3.1.1 Meat eaters

Initially, people consume meat because it is perceived as a primary source of protein. Several reasons make meat important for our health. Firstly, it offers a straightforward way to obtain essential protein, which can be more challenging to acquire from other food sources. Additionally, meat is nutrient-dense, providing a high concentration of essential nutrients per calorie or per 100-gram serving. It also possesses mild anti-inflammatory properties, meaning it does not negatively impact blood sugar balance. Thanks to its positive balance of omega-3 fatty acids, meat supports mood, brain function, and cell membrane health. Moreover, meat serves as a primary, non-supplement source of crucial nutrients like vitamin A, B12, and D, as well as creatine, carnosine, and the most beneficial forms of omega-3s. It plays a vital role in promoting muscle growth and maintenance. Lastly, animal proteins are known for their deliciousness and their ability to provide a satisfying meal that enhances positive mood and brain health (Kriegler, 2022). Nevertheless, due to concerns related to mass production and other issues, consumers have explored alternative meat consumption

practices, such as purchasing more organic products or substituting meat with alternative sources of protein.

3.1.2 Organic meat consumers

Meat produced with a focus on animal welfare is gaining popularity in Europe, driven by a desire for higher quality, authentic meat with associated health benefits. This trend has led to the emergence of organic products, including organic meat. In the context of organic production, 'organic' signifies that animals are raised in conditions that accommodate their natural behavior, such as the ability to graze on pasture (McEvoy, 2012). These animals are exclusively fed 100% organic feed and forage and are not administered any antibiotics or hormones. Organic farming practices are aimed at providing a better quality of life for livestock through proper care. For many consumers, 'organic' also signifies a more ethical and sustainable approach to meat production (McEvoy, 2012).

Today's consumers are more informed than ever before, and as a result, they are beginning to draw a connection between organic practices and benefits not only for the animals but also for themselves. Animal welfare has become a primary concern for consumers who seek transparency regarding various aspects of meat production, including origin, quality, available space per animal, outdoor access, and the use of growth hormones, among others. Consumers find satisfaction in their choice to support organic production, recognizing the positive impact on their health, animal welfare, ranchers, and the environment. As consumers become more knowledgeable about the quality and health aspects of their food, organic meat emerges as an ideal solution to address their concerns (Loria, 2021).

Consumer awareness of food production methods and health concerns has driven significant growth in organic food sales in Europe. Over the past decade, the sales revenue of organic products has more than doubled, increasing from 16.1 billion euros in 2007 to 37.3 billion euros in 2017 (Van de Pas, 2020). This growth is attributed to easier access and the increasing availability of organic products in retail stores.

However, the market share of organic meat products remains relatively low in most European countries due to the considerably higher prices of organic meat compared to conventional meat. Nevertheless, there is evidence of slow but steady market share growth. For instance, in Switzerland, the market share of organic meat increased from 5.6% in 2017 (Van de Pas, 2020) to 6.2% in 2019 (Wunsch, 2021). These figures highlight that organic meat still holds its status as a premium product for most consumers.

3.1.3 Flexitarians

The term 'flexitarian' is a blend of 'flexible' and 'vegetarian,' signifying that individuals who follow a flexitarian diet enjoy the benefits of vegetarian eating while still allowing for the

moderate consumption of animal products. While flexitarians do include animal products in their diet, they do not fall into the categories of vegetarians or vegans. This dietary approach emphasizes a predominantly plant-based diet while permitting the consumption of meat and other animal-derived products. Flexitarians prioritize obtaining protein from plant sources rather than animal sources, opt for less processed and more natural foods, and maintain flexibility in their meat intake (Streit, 2021).

In a recent poll conducted by YouGov, a UK-based polling company (Rogers, 2019), researchers delved into the attitudes and habits of flexitarians. The study revealed that the majority of flexitarians are primarily motivated by concerns for animal welfare, followed by health reasons, and lastly, environmental impact. These individuals also tend to place more importance on a brand's social views and ethics and are more inclined to believe that a meatless diet is both healthier and more ethical than one that includes animal products, in comparison to the general population. Moreover, flexitarians are more likely to engage in socially conscious behaviors in general, such as recycling or purchasing Fairtrade products (Rogers, 2019).

However, a challenge with flexitarianism lies in its lack of precise definitions. Unlike vegans or vegetarians who abstain from specific foods entirely, flexitarians vary widely in their consumption patterns. For instance, someone who includes meat in their daily meals might consider themselves flexitarian, while another individual who consumes meat only on a weekly or monthly basis might identify similarly. The primary obstacle that deters them from adopting a fully vegan or vegetarian lifestyle may be the perceived restrictiveness associated with these diets.

3.1.4 Vegans and vegetarians

Both veganism and vegetarianism are gaining popularity worldwide. The key distinction between the two lies in dietary choices. Vegetarians are individuals who abstain from consuming products or byproducts resulting from the slaughter of animals but are open to incorporating animal byproducts that do not involve animal slaughter, such as eggs, dairy products, and honey. Vegetarianism is generally considered less strict than veganism, and it encompasses various dietary forms, including (Eske, 2019):

- Lacto-ovo-vegetarian (avoiding all types of meat while consuming dairy products and eggs)
- Lacto-vegetarian (avoiding meat, fish, and eggs but consuming dairy products)
- Ovo-vegetarian (avoiding meat, fish, and dairy products but consuming eggs)
- Pescatarian (avoiding meat other than fish and seafood; although it doesn't fully adhere to the general definition of vegetarianism).

On the contrary, vegans adhere to a lifestyle that abstains from consuming or utilizing any animal products or byproducts. According to The Vegan Society, veganism is defined as 'a way of living, which seeks to exclude, as far as is possible and practicable, all forms of exploitation of and cruelty to animals for food, clothing, or any other purpose' (Eske, 2019).

Previous studies have identified various motives for choosing a vegan or vegetarian diet, which encompass ethical, environmental, health-related, taste, and religious reasons. However, primary reasons for embracing a plant-based diet tend to revolve around concerns related to animals, personal well-being and health, and environmental considerations (Janssen, 2016).

3.1.5 The future of meat

As awareness of the health benefits, climate change, and the environmental impact of meat production continues to grow, both omnivores and those who avoid meat are increasingly exploring meatless meal options. This heightened interest has led to the development and production of plant-based and cell-based alternatives to conventionally farmed meat. While there is limited evidence regarding whether meat alternatives provide comparable nutritional and health benefits, they do appear to have a smaller environmental footprint when compared to the production of traditional farmed meat.

While some individuals choose to completely avoid meat and animal products, others opt to replace a portion of their meat consumption with plant-based alternatives designed to mimic the texture, flavor, and nutritional profiles of traditional meat. These plant-based products utilize various ingredients derived from grains, oils, pulses, other plants, and fungi. In addition to these alternatives, there is a growing development stage for 'cell-based meats,' which are not yet commercially available but are advancing rapidly. These products, also known as 'cultured meat,' 'cultivated meat,' 'lab-grown meat,' 'cellular meat,' 'in-vitro meat,' or 'clean meat,' are cultivated from animal stem cells using tissue engineering techniques (Santo et al., 2020). They are created by taking a small sample of animal cells and cultivating them in a controlled environment, with the potential to replicate the taste, texture, aroma, nutritional composition, and appearance of conventional meat (Brennan et al., 2021)

At present, the production costs for cultivated meat remain significantly higher than those of conventional meat. This discrepancy arises from the lab-scale and pilot-scale production methods employed in cultivated meat production. However, it is estimated that more than 75% of these costs can be reduced through factors such as increased scale, improved manufacturing processes, research and development, and the integration of cultivated meats with plant-based proteins. Although it may take a few more years for consumers to see reduced prices for conventional meat, there is evidence suggesting that consumers are willing to pay a premium for products they perceive as healthier and more sustainable (Brennan et al., 2021).

Cultivated meat has garnered attention as a protein source that has the potential to fulfill consumer demand with a reduced environmental impact (Seth, 2023). Nonetheless, it is likely that additional investment and commitment will be required to transform this concept into one of the enticing protein options on people's plates.

3.2 Food choice motivations

In order to understand consumer meat consumption, we must first grasp the fundamentals of food choice motivations in general. Several factors influence food choice (Szejda et al., 2020):

- Biological determinants (hunger, appetite, taste preferences)
- Economic and physical determinants (cost, income, availability, access, education, skills, time)
- Social determinants (culture, family, peers, habits)
- Psychological determinants (mood, stress, attitudes, beliefs, knowledge about food).

Additionally, other factors contribute to food choice, including the food-choice environment, individual preferences for food attributes, and individual habits, motivations, and values (Monterrosa et al., 2020).

Once a consumer's fundamental food-choice drivers, such as taste, cost, and convenience, are satisfied, individuals have the opportunity to make food choices aligned with higher values, including health, environmental impact, and animal welfare.

Motivations for food consumption can be categorized into two distinct groups: traditional drivers (price, taste, convenience) and evolving drivers (health, wellness, safety, social impact, familiarity). As an increasing number of consumer options meet traditional drivers, evolving drivers are growing in importance for consumers (Ringquist et al., n.d.).

For the majority of consumers, health benefits, environmental impact, and animal welfare are unlikely to serve as primary food-choice motivators without the foundational factors of taste, cost, and convenience. Therefore, when creating marketing strategies, it is essential to define different consumer segments and tailor messages to appeal to specific groups. This approach tends to be more effective than messages aimed at the general public (Szejda et al., 2020). Targeted messages focus on understanding and influencing the shared characteristics of subgroups within a population (Kreuter & Wray, 2003) and may contribute to greater consumer adoption of plant-based meat.

3.3 Motivations and barriers to reduce meat consumption

Consumer segmentation studies on meat consumption typically identify three fundamental consumer groups:

- Traditional meat consumers
- Meat reducers
- Meat avoiders

Motivations to reduce meat consumption and consider plant-based options vary significantly among these consumer groups (Szejda et al., 2020).

Traditional meat consumers and meat reducers exhibit strong preferences for meat consumption, while meat avoiders have weaker preferences and share some motivations with the other two groups.

Multiple studies have identified the motivations of these three groups. In a study conducted in Portugal by Graça et al. (2015b), consumer profiles were established based on their emotional connection to conventional meat and their willingness to change dietary habits. The findings revealed that:

- Traditional meat consumers expressed a strong emotional connection to meat, indicating greater resistance to dietary changes.
- In contrast, meat avoiders expressed a low affective connection to meat and were more willing to change their diets, primarily for health or animal welfare reasons.
- The last group reported not consuming meat, had no emotional connection to it, and expressed concerns about the harm imposed on animals (Szejda et al., 2020).

A study conducted by Apostolidis and McLeay (2016a) examined the motivations of UK consumers to consume plant-based meat and categorized them into the same three groups. Non-meat eaters' food choices were heavily influenced by ethical concerns related to animal and human welfare. Interestingly, traditional meat eaters also expressed these concerns, although to a lesser extent. As meat consumers share similar ethical concerns with vegetarians and vegans, they may be open to trying plant-based meat under the right conditions. The introduction of new product portfolios and a wider variety of plant-based meat options in the marketplace will provide more opportunities for traditional meat consumers to make healthier and more sustainable choices.

Overall, the primary motivation for reducing meat consumption appears to be health benefits, followed by concerns for animal welfare and environmental benefits. On the other

hand, there are also certain barriers to reducing meat consumption, as it is often perceived as difficult, inconvenient, unenjoyable, and unhealthy (Austgulen et al., 2018).

Barriers to reducing meat consumption are as important as the motivations behind it because they can hinder the positive effects of these drivers. Corrin and Papadopoulos (2017) found that, across a range of countries, common barriers to reduction included the enjoyment of eating conventional meat, health concerns, and resistance to making dietary changes. Other studies have identified additional barriers such as convenience, perceptions of masculinity, and fear of trying new foods.The strength of these barriers varies across countries and among different socio-demographic groups. Perceived barriers were more significant among individuals who regularly consumed conventional meat, lived in rural areas, were male, young, less educated, and those who placed a high value on tradition (Pohjolainen et al., 2015).

The barriers to reducing meat consumption often have a more significant impact than the drivers. Individuals who prioritize value-based motivations such as health, the environment, and animal welfare do not always align their actions with their attitudes. As a result, a gap between attitudes and behavior emerges.

3.4 Gap between attitudes and behavior

Previous studies have found a gap between intentions to change behavior and actual behavior change (Lentz & Garrett, 2020). While people express increasing concerns for animal well-being, they continue to consume more animal products than ever before. This phenomenon is known as the 'meat paradox.'

The term 'meat paradox' is used by researchers to describe how people enjoy eating meat but dislike the idea that animals have to suffer and be killed (Pulina, 2020). It also illustrates how some individuals care deeply for certain animals, such as cats and dogs, but still consume other animals.

To address this gap, a recent review by Ursin (2016) outlines three strategies to alleviate the psychological tension experienced by meat eaters due to the meat paradox:

a) Changing one's behavior to align with one's values,

b) Adjusting the meaning of one's values to align with one's behavior, and

c) Upholding one's values and modifying one's perception of the phenomenon to bring one's values and behavior into alignment.

3.5 Marketing meat within the European Union

It is widely recognized that we are confronting multiple crises, including global warming, the risk of countless species' extinction, health emergencies extending beyond COVID-19, and more. Within Europe's food system, one of the major challenges is the reduction in the consumption and production of animal products, such as meat, dairy, and eggs. This shift aims for a transition to more ecologically and ethically produced animal products, as well as increased consumption of fruits and vegetables (Eräjää, 2021).

In 2021, more than 70% of farmland in the European Union (EU) was dedicated to livestock farming or the production of animal feed. Additionally, nearly two-thirds of EU farm subsidies were channeled towards supporting the production of animal products, both directly and indirectly (Eräjää, 2021). Scientists are advocating for a reduction in European meat and dairy consumption by at least 70% by 2030. This reduction is seen as essential for protecting the environment, improving overall public health, and addressing climate emergencies.

Despite warnings from scientists and experts about the disastrous impact of industrial animal farming on nature, climate, and public health, national and EU politicians have been reluctant to address this challenge. This reluctance is evident in the substantial amount of taxpayer money allocated to fund the overproduction of meat and dairy and promotional campaigns aimed at increasing the consumption of European animal products (Eräjää, 2021).

Between 2016 and 2020, a striking 32% of funding was directed exclusively towards promotional campaigns for meat and dairy, while an additional 28% supported campaigns promoting mixed baskets of products, nearly all of which included some form of meat or dairy. In contrast, only 19% of the funding was allocated to promote fruits and vegetables exclusively. Even more concerning, a mere 9% of the promotional funding was allocated to projects involving organic produce. To put this into perspective, out of the total budget of 776.7 million EUR dedicated to the promotion of European farm products during this period, a staggering 252.4 million EUR was spent exclusively on promoting meat and dairy products. An additional 214.7 million EUR was allocated to mixed product campaigns, whereas fruits and vegetables received a comparatively modest 146.5 million EUR. Furthermore, the data reveals that only 6.2 million EUR were allocated to the promotion of exclusively organic meat, accounting for a mere 3% of all funding allocated to animal products. In essence, the EU spent 35 times more money promoting conventional animal products compared to the more ecologically produced organic meat (Eräjää, 2021).

The disproportionate allocation of promotional funding for animal products underscores a preference for meat consumption and some of the most environmentally detrimental forms of food production. This discrepancy also highlights that political commitments to promote healthier and more balanced diets, along with increased consumption of fruits and vegetables, have yet to be fully reflected in actual spending.

4 ETHICS AND CONSUMER BEHAVIOR

This chapter will commence with a brief introduction to the concept of the ethical consumer, highlighting distinctions between ethical and green consumers. It will also address the challenges consumers encounter within the current food system. Furthermore, various forms of ethical consumer behavior will be described. In contemporary times, consumers exhibit growing concern for environmental, social, and economic issues and express a willingness to take action on these concerns. Nevertheless, translating this willingness into tangible actions can sometimes be challenging.

4.1 Ethical consumer

The emergence of the ethical consumer can be traced back to the 1990s, driven by concerns such as child labor and controversies surrounding genetically modified organisms (GMOs) (Cowe & Williams, 2000). In academic research, there has been a notable increase in publications addressing consumer ethics. However, the concept of ethics in consumption is multifaceted, and scholars have explored it through various lenses. Two primary streams of research focus on distinct conceptualizations of ethical behavior in consumer contexts: consumer ethics and ethical consumerism (Chatzidakis & Mitussis, 2007).

First, 'consumer ethics' studies how consumers perceive and respond to potentially unethical purchase behaviors or situations. These may include buying pirated software, using expired sales coupons, receiving excessive change at the counter, changing price tags on products, counterfeiting, shoplifting, and similar actions (Papaoikonomou & Valverde, 2011).

Secondly, 'ethical consumer' behavior refers to making consumer decisions based on social and environmental considerations, such as animal welfare, social responsibility, and environmental impact (Low & Davenport, 2007). Ethical consumer behavior can be broadly defined as the 'decision-making, purchases, and other consumption experiences that are influenced by the consumer's ethical concerns' (Cooper-Martin & Holbrook, 1993, p.113). In essence, ethical consumers decide whether or what to buy based on their ethical and environmental concerns."

Furthermore, Roger Cowe and Simon Williams (2000) describe the term "ethical consumers" as people who are influenced by environmental or ethical considerations when choosing products and services. "Ethical" is used to cover matters of conscience such as fair trade and animal welfare, social aspects like labor standards, as well as more self-interested health concerns, which have contributed to the growth of organic food sales.

Consumers are increasingly concerned about environmental, social and economic issues and are willing to act on those concerns. However, consumer willingness often does not translate into sustainable consumer behavior due to variety of factors, such as availability,

affordability, convenience, product performance, conflicting priorities, skepticism, force of habit etc.

4.2 Defining the ethical consumer: Green Consumer and Ethical Consumer

Several authors consider the ethical consumer as an evolution of the green consumer. The ethical consumer behavior and green consumer have been researched mainly since the 1970's, prompted by consumerism movement that emerged during that period (Chatzidakis et al., 2006).

The green (Peattie, 2001), ecologically concerned (Kinnear, 1974) or environmentally conscious (Kinnear et al., 1974) consumers are defined as individuals that show an interest in the environment both by their predisposing purchasing behavior as well as their general attitude to environmental protection and conservation (Kinnear, 1974).

In the research by Elkinghton et al. (1989a), green consumers are defined in terms of their tendency to avoid products which endanger health of consumers and others, significantly damage the environment in production, use or disposal, cause unnecessary waste, consume disproportionately large amounts of resources, use materials from endangered species or environments, involve cruelty to animals and adversely affect other countries.

As drawn from the above-mentioned definitions, the concept of the green consumer goes beyond simply buying environmentally friendly products and/or avoiding products that harm the environmental equilibrium. According to research by Hendry and Sorell (1994, p. 83), 'something more than purchasing decisions is required to constitute distinctively ecological consumption.' Instead, other aspects of daily life and consumption decisions are taken into account, such as recycling and composting household waste, using public transport, and saving energy. All of these represent fragments of a general lifestyle reflected in different types of behaviors, such as environmental activism, working at environmental organizations, or donating money to such non-profit organizations (NGOs) (Papaoikonomou et al., 2011).

The difference between green and ethical consumers lies in the scope of their concerns. While green consumers primarily focus on general environmental issues and animal welfare, ethical consumers extend their concerns to broader societal welfare issues such as fair trade, social justice, human rights, and armament manufacture (Papaoikonomou et al., 2011; Shaw & Shiu, 2002). This distinction is important because being concerned about a wider range of issues can significantly increase the complexity of consumer decisions. Ethical concerns are often ongoing and complex, requiring more effort in the consumer decision-making process (Shaw & Shiu, 2002).

The transition from green consumer behavior to ethical consumer behavior occurred primarily in the 1990s. Consumers in the 1990s made purchasing decisions that considered not only price, quality, delivery, and environmental concerns but also the ethical dimension

of the marketing exchange. This marked a shift from the consumer behavior of the 1980s (Fletcher, 1990). Additionally, during this period, the term 'ethical consumer' began to appear more frequently in academic papers and dissertations.

In contrast, being an ethical consumer today means addressing global issues by altering one's consumption patterns. Being an ethical consumer in the modern world requires recognizing that consumption is not solely embedded in economic relations but also in political and social ones. Therefore, what we consume holds significance beyond the immediate context of our lives. When we purchase goods and services within the capitalist economic system, we effectively endorse how the system operates. We give our consent to the functioning of supply chains and the distribution of profits among various stakeholders. Our consumer choices not only support and affirm the existing economic system but also provide legitimacy to the global and national policies that sustain this economic framework. Ultimately, what we consume has far-reaching implications, as it places us in social relationships with all the individuals involved in our food chain, spanning production, packaging, exporting, importing, marketing, and selling processes (Cole, 2019).

In the Ethical Purchasing Index report (2001; cited in Doane, 2001), an ethical purchase was defined as a product that:

- Aligns with a specific ethical issue, such as human rights, animal welfare, or the environment.
- Provides consumers with a choice between the product and an ethical alternative.
- Reflects, as much as possible, personal or individual choice rather than corporate decisions.

Cowe and Williams (2001) define ethical consumption as choices made because they are morally right or align with one's values and beliefs. Others emphasize the long-term positive impact on society and the goal of minimizing or eliminating harm, including the exploitation of humans, animals, or the environment.

Webster (1975) introduced another element into the conceptualization of ethical consumerism: the power that consumers possess. He explored the idea of using consumption as a means to bring about social change. When consumers are aware of opportunities to purchase products and services that address societal issues, they can wield their purchasing power to influence these problems positively. Adams (1990) also discussed how consumers can 'vote' through their ethical purchasing behavior. This involves showing support by purchasing environmentally or animal-friendly products or expressing rejection by abstaining from buying products produced in sweatshop environments.

I have noticed that academics use different terms to describe the same phenomenon of ethical consumer behavior. Some synonyms include political consumption and political

consumerism, responsible consumption or fair consumption, active consumerism, and socially conscious or socially responsible consumer behavior.

At this point, it would be appropriate to distinguish between the terms 'consumption' and 'consumerism,' as they are often used interchangeably but have distinct meanings. According to the Oxford Dictionary, 'consumption' is defined as the 'purchase and use of goods.' Similarly, in the book 'Consumerism: As a Way of Life' (Miles, 1998), consumption is described as 'the selection, purchase, use, maintenance, repair, and disposal of any product or service.' It encompasses the act of fulfilling basic needs, such as buying food, clothing, and entertainment, as well as other products and services.

On the other hand, 'consumerism,' as defined by Miles (1998), is of greater sociological interest than mere consumption. It represents a way of life rather than a single act. Consumerism is often associated with an excessive preoccupation with consumption, and in this sense, it carries a negative connotation.

Consumerism is a theory that individuals will be better off if they consume goods and services in large quantities. The increasing consumption in the market is a desirable goal. It is a key driver of the economy. However, consumerism is commonly perceived as a tendency of people living in a capitalist economy to engage in a lifestyle of excessive materialism. In this sense, consumerism is widely understood to contribute to the destruction of traditional values, environmental degradation, negative psychological effects etc. (Hayes, 2021).

At ethical consumer magazine (Hunt,2020) provides two definitions of consumerism:

1. "The protection or promotion of the interests of consumers."

2. "The preoccupation of society with the acquisition of consumer goods."

The first definition is good enough but fails to take into account the economic system that we live in and the consequences of our consumption on people, the planet and animals (Hunt, 2020). Nowadays, the role of the consumer is to simply buy more and more goods to help the system create cheaper products, regardless of the problems, consequences and externalities it causes to the environment. Therefore, in the context of ethical consumer, the word consumption should be used since consumerism can never be ethical.

4.3 Types of ethical consumer behavior

As several issues have been incorporated into the agenda of the ethical consumer, consumers have responded by adopting a series of ethical consumer practices reflected in diverse lifestyles, consumption levels, product choices and disposal of products. Some of the ways that ethical consumers express their ideology through purchasing decisions are by buycotting, boycotting, downshifting of consumption etc. (Papaoikonomou & Ginieis, 2013).

As outlined below four main types of ethical purchase behavior have been identified in the literature:

1. Buycotting: This refers to the act of choosing and buying certain products and services over others due to social considerations (Shaw & Clarke, 1999; Shaw & Shiu, 2002, 2003). Harrison et al. (2005:3) also call it positive buying or affirmative buying. An example is the purchase of fair trade or environmentally friendly products.

2. Boycotting: Consumers may express their social concerns by avoiding certain actions or by not purchasing a product. This can be due to companies that commercialize the product having unethical social records (company-oriented boycotting) or because their products are unsustainable (product-oriented boycotting) (Harrison et al., 2005).

3. Voluntary Simplicity/Downshifting/Ethical Simplifiers: Ethical simplifiers are consumers who choose to reduce their overall consumption levels and adopt a simpler lifestyle due to social and environmental considerations (Shaw & Newholm, 2002). This ethical lifestyle permeates all aspects of behavior.

4. Sustainable Consumer Habits: Ethical consumer behavior also refers to individual post-purchase and other behaviors related to how products are used and disposed of. This includes recycling and waste management by ethically minded consumers (Grønhøj, 2006). This category refers to individual behavior, as opposed to the previous category which referred to an overall lifestyle.

4.4 Meat consumption in relation to ethical issues

Meat consumption has become deeply integrated into Western ideas of proper meal structure, nutrition, and cooking. The place of meat as a default in the diet makes efforts to reduce meat consumption a complex and difficult task. In the literature, we distinguish between "slow" and "fast" thinking, where slow thinking involves more deliberative attention and analysis, while fast thinking is a quicker and more intuitive process where individuals use less cognitive strain. Fast thinking would involve choosing what to buy based upon already ingrained beliefs and traditions, while slow thinking would involve an individual weighing the costs and benefits of whether to consume meat based on relevant information such as health impacts, environmental benefits, animal welfare, etc.

4.4.1 Meat consumption and animal welfare

The relationship between meat consumption and its impact on animal welfare has been a subject of significant research and discussion. In recent years, consumers and organizations have become increasingly aware of the impact meat consumption has on animal welfare. The era when food was purchased solely to satisfy basic physiological needs is no longer

prevalent. Nowadays, food, and meat in particular, is purchased and consumed to fulfill more complex social needs, including social impact, safety, health, wellness, etc. (Hughes, 1995).

Studies have shown that the demand for meat products, particularly from intensively farmed animals, has raised concerns about the welfare of animals raised for food production (Lassen et al., 2016). Intensive meat production systems often involve crowded and stressful conditions for animals, leading to concerns about their physical and psychological well-being (Fraser, 2008). These issues have prompted calls for greater awareness and changes in consumer behavior, with some advocating for reduced meat consumption or the choice of meat from more humane and sustainable sources (Lassen et al., 2016; Graça et al., 2015).

The impact of meat consumption on different consumer groups, including vegans, vegetarians, and traditional meat eaters, varies significantly and is influenced by diverse factors. For vegans and vegetarians, who have made a conscious choice to abstain from meat, their consumption is significantly lower or entirely eliminated due to ethical concerns about animal welfare and environmental sustainability (Rosenfeld & Burrow, 2017). These individuals prioritize plant-based diets and often advocate for reduced meat consumption, which is reflected in their dietary choices. In contrast, traditional meat eaters, who make up a majority of the population, tend to have relatively stable or increasing meat consumption levels despite increasing awareness of the ethical and environmental issues associated with meat production (Graça et al., 2015). The impact of such concerns on traditional meat eaters is influenced by cultural norms, personal preferences, and economic factors, often resulting in resistance to reducing meat consumption. Overall, the impact of meat consumption varies among these consumer groups, with vegans and vegetarians leading the way in reducing their meat consumption due to their ethical and environmental values, while traditional meat eaters are slower to change due to a range of social and personal factors.

In light of these concerns, research on consumer attitudes and behaviors regarding meat consumption is critical in understanding the potential for shifts towards more animal-friendly and sustainable dietary choices.

4.4.2 Meat consumption and environmental impact

The environmental impact of meat consumption is well-understood within scientific literature; however, consumers' understanding of these impacts may be tenuous or even absent. This is significant because consumers often base their consumption and purchasing decisions, at least partially, on their knowledge and beliefs regarding such actions. When consumers lack knowledge about the environmental impacts of meat, they are unable to use it as motivation to reduce their meat intake. Studies across various nations have shown that there is generally low awareness among the public regarding the environmental impacts of meat. This lack of awareness hinders efforts to reduce meat consumption, as this knowledge would likely lead to reduced meat intake, particularly among environmentally concerned consumers (Lentz, 2020).

A study conducted in the UK (DEFRA, 2011) revealed that 85% of consumers stated they would consider altering their diets for the benefit of the environment. Furthermore, another study (Bailey et al., 2014) indicated that the willingness to reduce meat consumption increased from around 30% among those unaware of the climate impact to 60% among those who were aware of the climate impact. Therefore, we can conclude that there is evidence supporting a link between awareness of the environmental impact and the willingness to change dietary habits, including meat consumption.

Raising awareness of the environmental impact of meat production and consumption is a crucial issue to address, especially in conjunction with other motivators that are likely more prevalent and salient in society, such as health and animal welfare concerns.

4.4.3 Meat consumption and health concerns

One of the most significant trends that has developed over the past few years has been the increasing consumer concerns about the impact of food consumption on physical appearance and health. This factor has had a significant impact on consumers' food choices. The same trend applies to livestock products. Furthermore, the consumption of some products has been in decline. For example, certain red meats, due to concerns over cholesterol and bovine spongiform encephalopathy (BSE), have been replaced with more versatile, better value-for-money white meat. Eggs have seen a decline in consumption, largely due to concerns over health and salmonella. Similarly, whole milk and butter have witnessed a decline in consumption due to concerns about fat (Hughes, 1995).

At the production level of industrial livestock farming, we are witnessing heavy antibiotic usage to accelerate weight gain and control infection. Over 80% of all antibiotics used in the US are consumed by the livestock industry, contributing to the growing public health problem of antibiotic resistance. High meat consumption, typically in rich industrialized countries, is linked to poor health outcomes, such as stroke, heart disease, various cancers, and diabetes (Pickles, 2017). However, red meat also provides several important nutrients in the diet.

In conclusion, it is reasonable to assert that high consumption of meat, particularly red and processed meat, is associated with increased health risks and environmental burdens. Consequently, some European countries have already incorporated these concerns into their new dietary guidelines, recommending a reduction in the consumption of red meat (Wolk, 2017).

5 EMPIRICAL RESEARCH OF CONSUMER ATTITUDES REGARDING MEAT CONSUMPTION

The purpose of this master's thesis is to examine consumer attitudes toward meat consumption in Slovenia. This chapter outlines the goals of the primary empirical research,

identifies and explains the hypotheses, details the research methodology, discusses survey limitations, and provides an interpretation of results. This interpretation includes research analysis, key findings, and hypothesis tests.

5.1 Purpose and goals

The purpose of the empirical part of this master's thesis is to examine consumer attitudes regarding meat consumption in Slovenia based on secondary literature sources and existing empirical research, and to understand the main drivers of their meat purchasing decision-making.

Specifically, the objectives of this research are threefold:

a) to examine consumer awareness of ethical concerns regarding meat consumption,

b) to explore consumer motivations for adopting a plant-based diet or reducing/avoiding meat consumption, and

c) to examine consumer willingness to stop or reduce meat consumption.

Consumers will be divided into three different categories to explore whether motivations for meat reduction/avoidance differ among different consumer groups. The three categories include:

a) Abstainers (following a vegan and/or vegetarian diet),

b) Reducers (also referred to as flexitarians, who have significantly reduced their weekly meat protein intake), and

c) Standard (omnivores, who are not following any particular diet and usually eat meat on a daily basis).

The results of this empirical research will contribute to a better understanding of consumer attitudes toward meat consumption in Slovenia. These findings can assist marketers in understanding diverse consumer types and inform future marketing strategies.

5.2 Research hypotheses

I have formulated my research hypotheses based on the literature reviewed in the theoretical part of my master's thesis. Through hypothesis testing, I aim to validate whether the findings of similar international studies align with the results of the present study among Slovenian consumers.

Hypothesis 1: Consumers will rank 'eating less meat' in the bottom half of sustainable behaviors in terms of environmental benefit compared to other sustainable behaviors.

Market research conducted in New Zealand (Lentz, 2020, p. 130-131) indicated that the environmental benefit of consuming less meat was consistently rated lower than all other sustainable food behaviors. This ranking occurred despite the fact that reduced meat consumption is likely to yield greater and more widespread environmental benefits. 'Eating less meat' was consistently placed in the bottom half of sustainable behaviors. The effect size between the most perceived sustainable behaviors and 'eating less meat' was found to be large.

Hypothesis 2: Abstainers, those who don't eat meat, will rank 'animal welfare' as the primary reason to reduce meat consumption.

Market research conducted in New Zealand (Lentz, 2020, p. 131) revealed statistically significant differences in the factors influencing meat consumption reduction among standard consumers, reducers, and abstainers. Notably, individuals who abstain from meat cited health benefits as the most important factor for reducing meat intake, followed by the high cost of meat and environmental concerns.

Hypothesis 3: The motivations for reducing or avoiding meat consumption will exhibit statistically significant difference among standard consumers and reducers of meat consumption.

Market research conducted in New Zealand (Lentz, 2020, p. 131-133) has indicated statistically significant distinctions among various consumer groups in their motivations to reduce meat consumption. For reducers, the motivation related to 'health benefits' is significantly higher compared to standard consumers, even surpassing the motivation of the 'high cost of meat.' Additionally, motivations such as 'environmental friendliness,' 'animal welfare concerns,' and 'weight control' also exhibit statistically higher significance among reducers when contrasted with standard consumers.

Hypothesis 4: Consumers with higher level of education view veganism as more ethical than consumers with lower level of education.

Market research conducted in the United Kingdom (UK) (Bryant, 2019, p. 10) has shown a positive correlation between education levels and opinions about veganism. Specifically, individuals with higher levels of education tend to perceive veganism as more ethical. This hypothesis was confirmed.

Hypothesis 5: Women hold more positive views of vegetarianism compared to men.

Research conducted in the United Kingdom (UK) (Bryant, 2019, p. 8) supports the hypothesis that women tend to have more favorable opinions of vegetarianism than men.

This aligns with previous research indicating that men generally consume more meat and are less likely to adopt vegetarian or vegan diets compared to women.

Hypothesis 6: Women are more likely than men to hold beliefs that meat production is bad for the environment.

Research conducted in Belgium (Mullee, 2017, p. 301) supports the hypothesis that women are more likely than men to hold the belief that meat production is detrimental to the environment.

Hypothesis 7: Consumers are willing to pay more for products that respect animal welfare.

According to a study conducted among European slow food members (Ghione, 2013), over 90% of respondents expressed their willingness to pay a higher price for animal products that prioritize animal welfare.

5.3 Methodology

The empirical research in this thesis was based on the information and findings presented in the theoretical part of the work. Given the nature of the problem under study, a quantitative method was chosen as the most suitable approach. The preferred method was a web-based survey questionnaire, which was distributed among consumers through social media channels.

This survey was designed to test the working hypotheses developed earlier. Surveys are a widely-used data collection method in economics, business, and the social sciences in general (Bregar, Ograjenšek, & Bavdaž, 2005, p. 86). I chose an online survey due to its ease of data collection and fast response time.

To ensure the questionnaire's effectiveness, it was pre-tested on a sample of seven individuals. Their feedback, recommendations, comments, and results were considered in the final version of the web-based questionnaire, leading to improvements such as sentence reordering within questions and clearer definitions of consumer categories. The final version of the questionnaire is included in Appendix 2.

The target population for this survey includes Slovenian consumers of all genders, aged 18 to 71 years and older. The survey questionnaire consisted of 28 questions, of which seven were specifically designed for testing hypotheses. All questions in the survey are close-ended.

The second question aimed to assess how different sustainable behaviors are perceived in terms of their environmental benefits. The eighth question was utilized to identify the primary factors contributing to the reduction of meat consumption. Additionally, this question allowed for the analysis of differences among consumer categories in relation to

meat consumption reduction. Question 17 was employed to examine how a meatless diet is perceived based on an individual's level of education, while question 16 was used to compare perceptions of meatless diets between genders. Lastly, question 18 sought to understand how meat production is perceived with respect to gender differences.

The remaining questions in the questionnaire were not utilized for hypothesis testing but were instead intended for generating descriptive statistics.

Individual variables and constructs in the hypotheses, along with their measurements, were derived from relevant literature and adapted to the context of this study.

For data analysis, I utilized computer software programs, including Microsoft Excel and SPSS, for conducting statistical analyses.

The analyses included basic univariate statistical methods such as frequency distributions, arithmetic means, and standard deviations. The statistical significance threshold was set at $\alpha = 0{,}05$.

5.4 Data analysis

The data analysis includes sample description with figures and tables, along with descriptive statistics. The results are presented in a content-specific manner, with the analysis of hypotheses conducted at the end.

5.4.1 Sample description

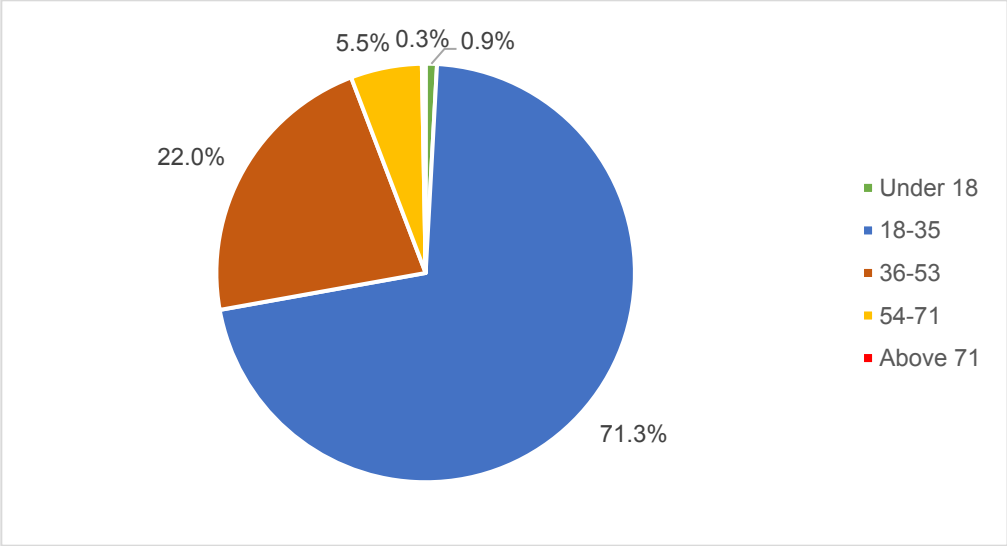
The research was conducted in Slovenia using an online survey questionnaire from November 30, 2021, to March 1, 2022. A total of 510 respondents participated, out of which 345 respondents completed the questionnaire adequately. The remaining 165 respondents did not fully complete the questionnaire and were therefore excluded from the analysis. The sample includes individuals with diverse characteristics, including variations in gender, age, education, employment status, income, and diet.

Gender and age

The gender distribution in the sample included 61 male respondents, accounting for 17.7%, and 284 female respondents, making up 82.3% of the sample.

Regarding age, the sample was categorized into five age groups. The majority of respondents, 246 individuals (71.3%), fell into the age group of 18 to 35. Another substantial age group, consisting of 76 respondents (22%), was between 36 and 53 years old. A small number of respondents belonged to the age groups 'Under 18,' which had 3 respondents (0.9%), 'From 54 to 71,' with 19 respondents (5.5%), and 'Above 71,' with only 1 respondent (0.3%)."

Figure 3: Age structure of the respondents

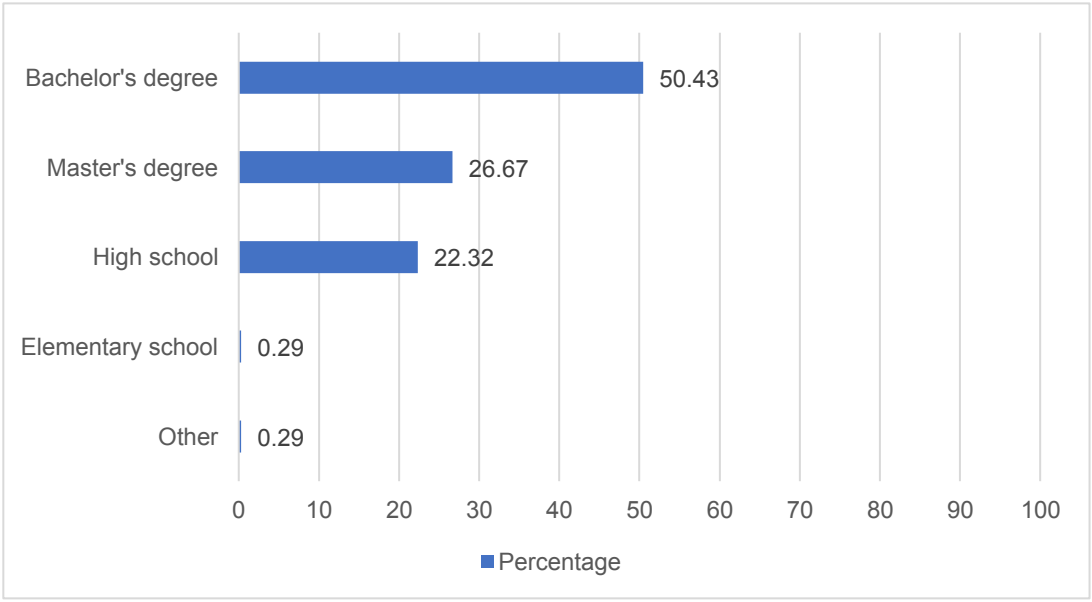


Source: Own work.

Education

Respondents were categorized into four groups based on their level of education. Figure 4 illustrates the survey results, with the largest group of respondents holding a bachelor's degree (50.4%). Following that, respondents with a master's degree accounted for 26.7%, while those who completed high school made up 22.3%. Only a small percentage of respondents had completed only elementary school (0.3%). Furthermore, there was one respondent with a doctoral degree.

Figure 4: Education of the respondents

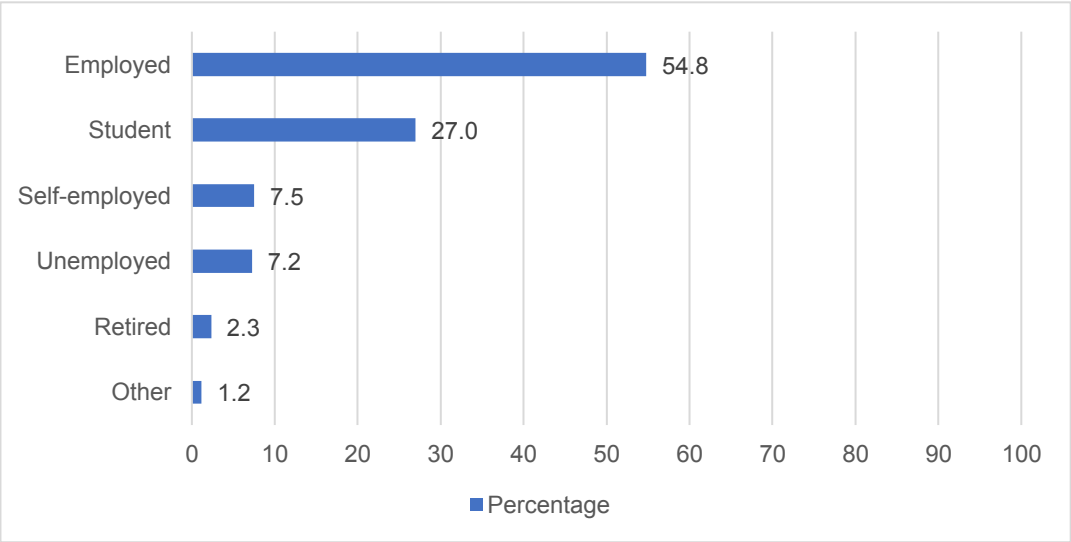


Source: Own work.

Employment status

Figure 5 illustrates the employment status of the respondents. The majority (54.8%) of respondents are employed. The second largest group consists of students (27%). A smaller percentage of respondents identified as self-employed (7.5%), unemployed (7.2%), or retired (2.3%). Additionally, there were four respondents who selected "Other," including two on maternity leave, one who is a housewife, and one who is still in high school.

Figure 5: Employment status of the respondents

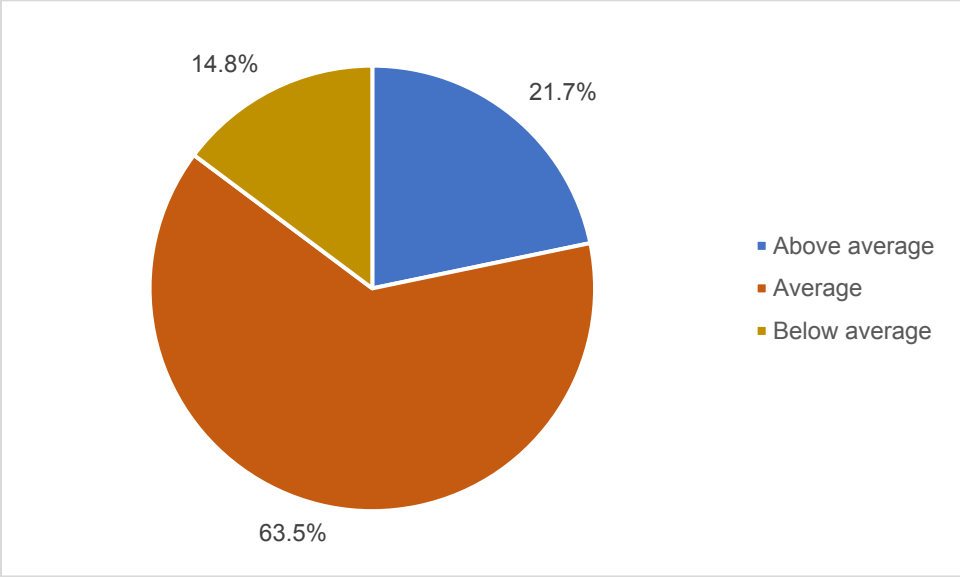


Source: Own work.

Income

The data regarding the income of the respondents was categorized into three groups, as illustrated in Figure 6: average, below average, and above average. To maintain respondent privacy, specific numerical values were avoided. The majority of respondents reported having average income (63.5%), followed by those with above-average income (21.7%), and those with below-average income (14.8%).

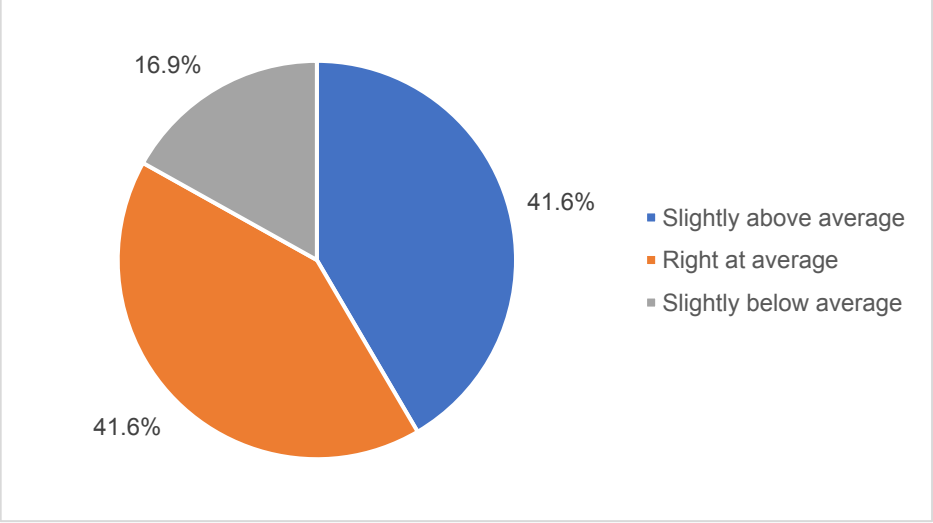
Figure 6: Income of the respondents



Source: Own work.

I have further subdivided the 'average income' category into three subcategories: slightly above average, right at average, and slightly below average. Figure 7 illustrates that only 16.9% of respondents reported having income slightly below average, while the majority fell into either the right at average or slightly above average income groups.

Figure 7: Distributed average income of the respondents



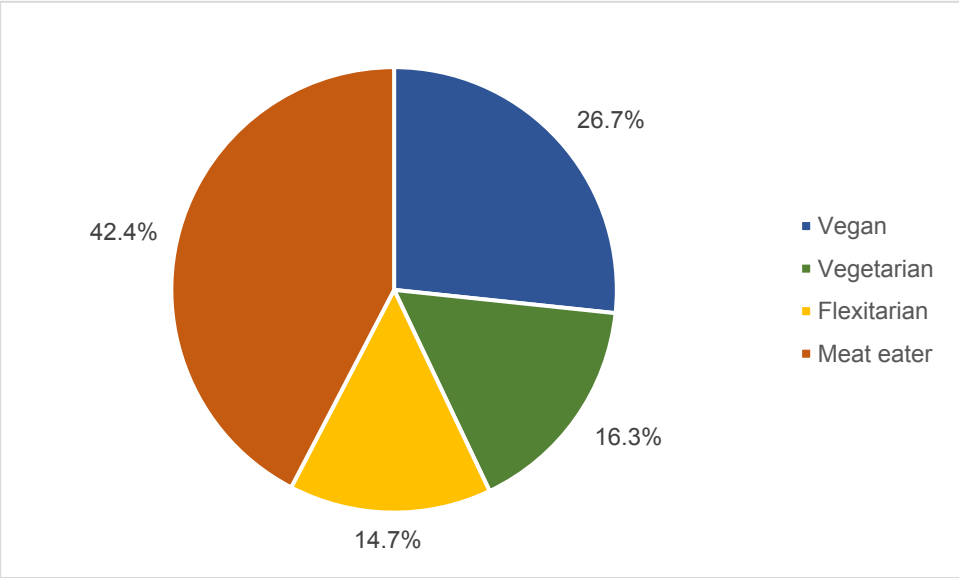
Source: Own work.

Way of eating

Respondents have been categorized into four distinct consumer groups based on their meat consumption habits. As illustrated in Figure 8, the largest group consists of meat eaters,

comprising 42.4% of the respondents (146 individuals). They are followed by vegans, accounting for 26.7% (92 respondents), vegetarians at 16.3% (56 respondents), and flexitarians at 14.7% (51 respondents).

Figure 8: Way of eating of the respondents



Source: Own work.

5.4.2 Descriptive data analysis

Consumer awareness of meat consumption

Respondents were asked to assess the environmental impact of meat consumption in the 2nd question of the questionnaire provided in Appendix 2. They were required to rate how various eating behaviors affect environmental benefit on a Likert scale ranging from 1 (indicating very low environmental benefit) to 5 (indicating very high environmental benefit).

Among the six sustainable food behaviors evaluated, consumers perceived that buying foods with less packaging material had the most substantial positive impact on the environment. This was followed by buying local products, consuming seasonal fruits and vegetables, avoiding air-transported foods, eating less meat, and purchasing organic products. Notably, respondents rated the environmental benefit of eating less meat significantly lower in comparison to all other sustainable food behaviors.

Figure 9: Means for perceived environmental benefit of six sustainable food behaviors

Source: Own work.

In question four of the questionnaire, respondents were asked about the frequency of their meat consumption. Forty-eight percent of respondents reported that they never eat meat, followed by 14% who rarely eat meat. Additionally, 24% of respondents indicated they eat meat several times a week, while 12% reported consuming meat daily. A further 7% stated that they eat meat several times a day.

In the 9th question of the questionnaire, when asked whether they think about animal welfare when buying meat, 20.7% of respondents said "most of the time," 37.7% said "sometimes," and 32.8% never think about it. Another 5.1% don't buy meat products, and 3.5% don't know.

In question twelve, when respondents were asked about their attitudes towards the act of consuming meat, they leaned more towards negative attributes than positive ones. They had to respond on a Likert scale from 1 to 5, with 1 indicating more agreement with the attribute on the left and 5 indicating more agreement with the attribute on the right. They considered consuming meat to be more bad than good, more unpleasant than pleasant, more against it than for it, and they thought it was more unfavorable than favorable. The results, including mean values and standard deviation, are shown in Table 1.

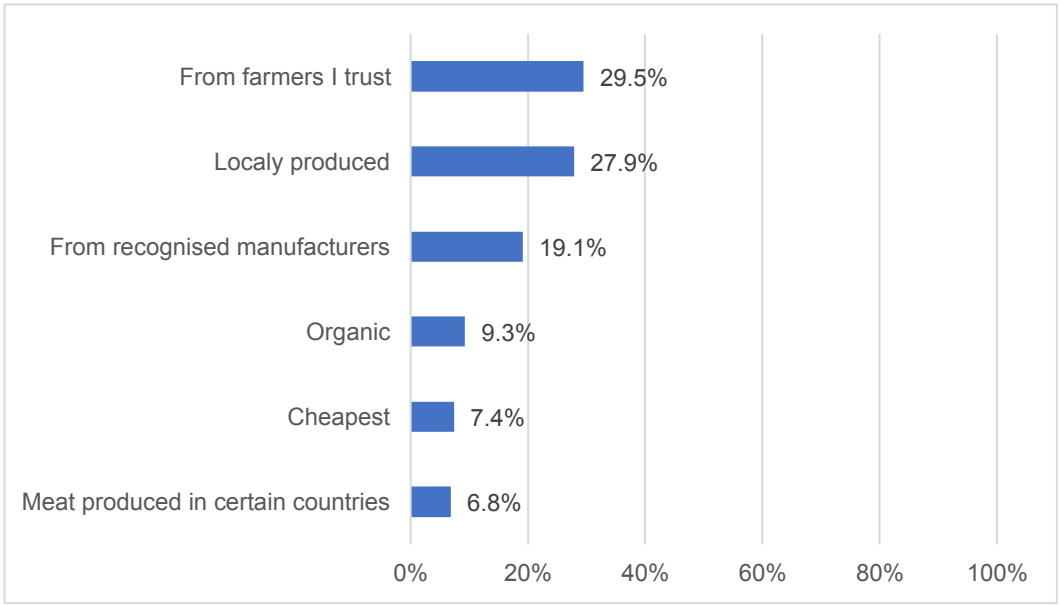
Table 1: Arithmetic mean and standard deviation of respondent's attitudes and thoughts towards the act of consuming meat

	Mean	Std. Deviation	
Bad	2,59	1,54	Good
Unpleasant	2,59	1,55	Pleasant
Against	2,51	1,51	For
Unfavorable	2,41	1,39	Favorable
Negative	2,34	1,39	Positive

Source: Own work.

In the 10th question, respondents were asked about the type of meat they choose to buy. The majority (29.5%), as shown in Figure 10, indicated that they buy meat from farmers they trust, followed by locally produced meat (27.9%), meat bought from recognized manufacturers (19.1%), and organic meat (9.3%). Additionally, 7.4% of respondents stated that they buy the cheapest option available on the market, while 6.8% are attentive to the country of origin of the meat.

Figure 10: Type of meat chosen by the respondents



Source: Own work.

Consumer motivation to stop or reduce meat consumption

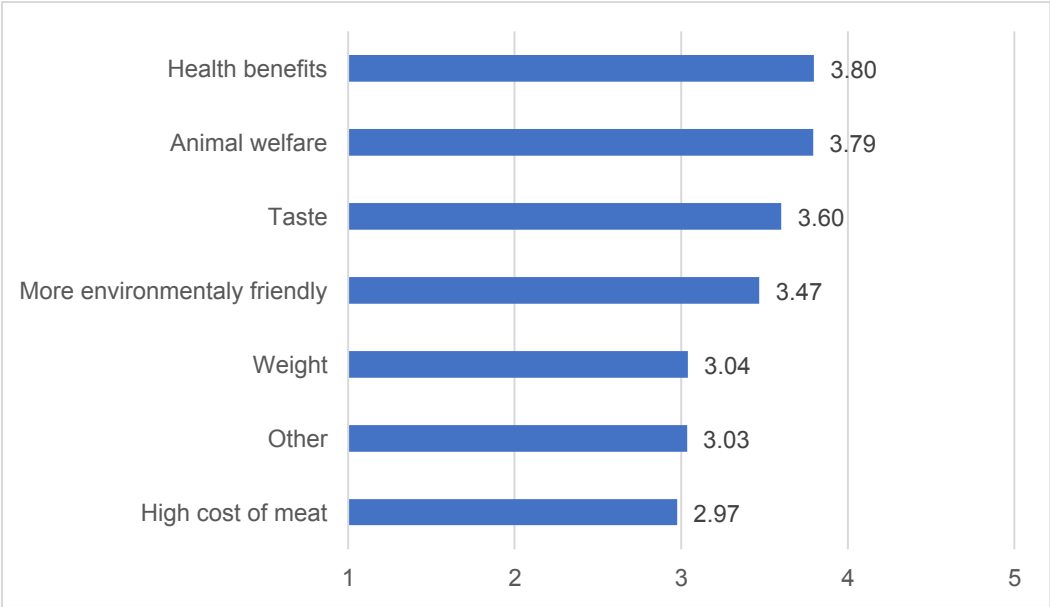
For motivations to reduce meat consumption, participants were asked one of two questions based on how they answered previous questions. Standard consumers were asked question

eight, which inquired, "How important would each of the following factors be in reducing your overall meat intake?" In contrast, reducers and abstainers were presented with an alternative question, question eleven, which asked them to reflect on the factors that influenced their decision to reduce meat intake, stating, "Think back to when you first decided to cut down on meat consumption. How important was each of the following factors in your decision to reduce your meat intake?

Six potential motivations to reduce meat consumption (along with an optional "other" box) were presented to participants to assess what has influenced or could potentially influence them to reduce their meat intake. These options included 'health benefits,' 'environmental friendliness,' 'animal welfare concerns,' 'high cost of meat,' 'taste preferences,' and 'weight control.' Participants were asked to rate the importance of these factors on a 5-point Likert Scale, with 1 indicating "not at all important" and 5 indicating "extremely important

Figure 12 indicates that for standard consumers, the most significant factor in reducing their meat intake is health benefits, followed by animal welfare, taste preferences, environmental friendliness, weight control, and the high cost of meat. Other reasons mentioned for reducing meat intake included allergies, well-being, and access to other quality products.

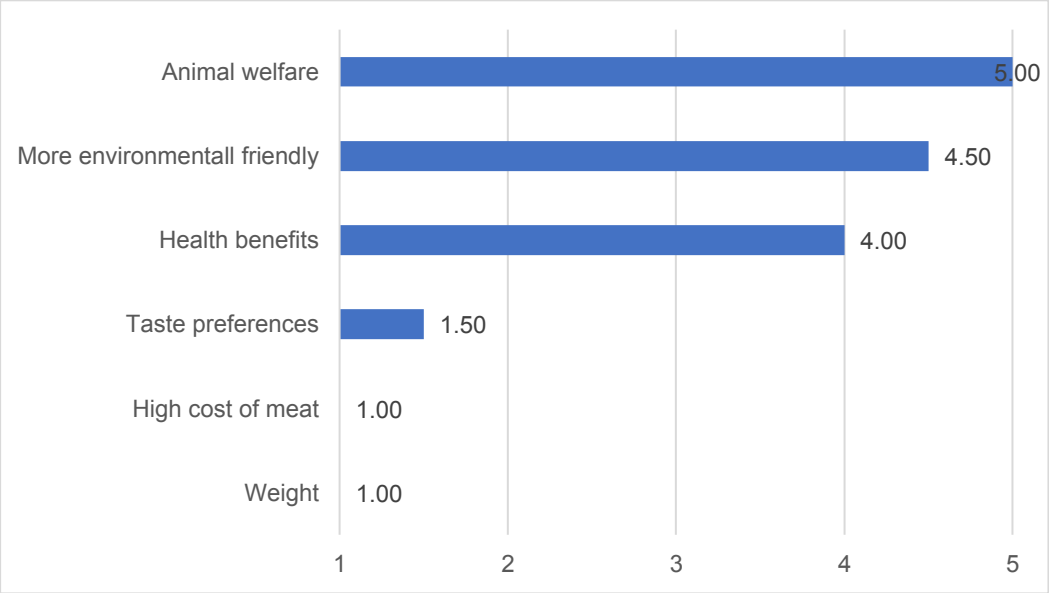
Figure 11: Motivations to reduce meat consumption for standard consumers



Source: Own work.

In Figure 13, it's evident that for reducers and abstainers, the primary motivation to reduce or stop meat consumption is animal welfare. This is followed by considerations of environmental friendliness, health benefits, taste preferences, the high cost of meat, and weight control.

Figure 12: Motivations to reduce meat consumption for reducers and abstainers



Source: Own work.

In conclusion, it's evident that ethical concerns have played a significant role in motivating individuals to alter their meat consumption habits. This is underscored by the fact that the two most crucial factors for reducers and abstainers are animal welfare and environmental benefits. Interestingly, among standard consumers, health benefits take precedence, followed somewhat surprisingly by considerations of animal welfare, with environmental benefits ranking as the fourth most important factor.

Consumer willingness to stop or reduce meat consumption

When standard consumers were asked whether they are currently trying to reduce their personal meat intake, 50% of respondents said "yes" and 50% of respondents said "no".

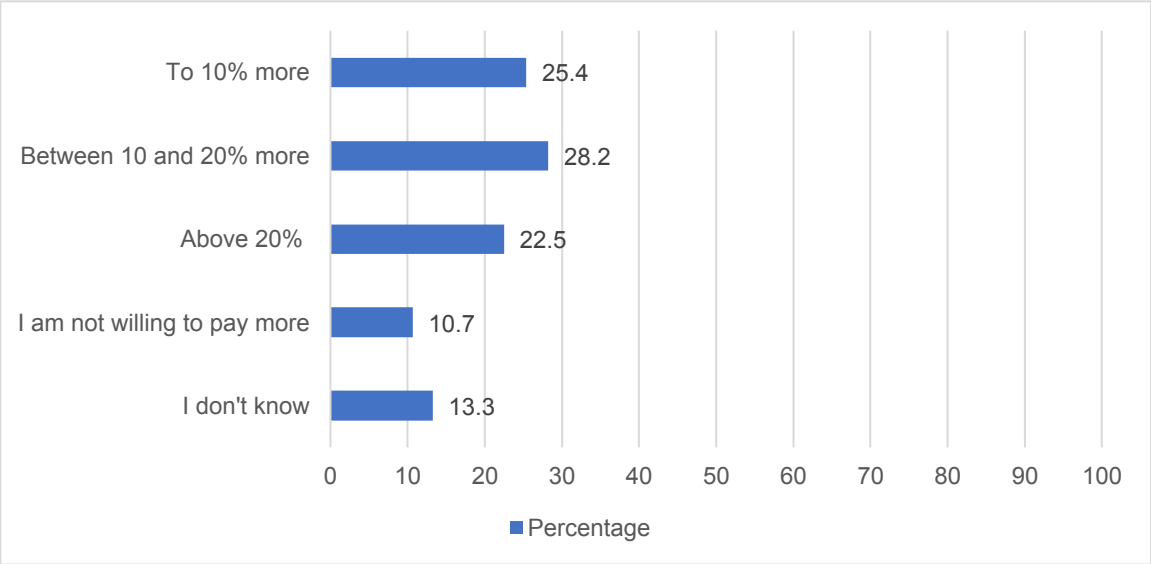
Additionally, respondents were asked to rate their preparedness to consider reducing meat consumption in the near future on a scale from 1 to 7, with 1 indicating "not at all willing" and 7 indicating "extremely willing." The average score was 3.87, with a standard deviation of 2.4. This suggests that they are somewhat willing to consider this option.

When asked if they have specific plans to reduce their meat intake in the next six months, the average response was 3.13, with a standard deviation of 2.32. This indicates that, on average, respondents do not have strong intentions to reduce their meat intake in the coming months.

However, when they were asked in the 20th question of the questionnaire whether they are willing to pay more for products that prioritize animal welfare, 76.1% of respondents expressed a willingness to pay more. Among them, 22.5% are willing to pay more than 20%,

28.2% are willing to pay between 10 and 20% more, and 25.4% are willing to pay 10% more. On the other hand, 10.7% are not willing to pay more for products that consider animal welfare, and 13.3% don't know. The results are displayed in Figure 14. At this point, I can emphasize the inconsistency of this result with the other results. We can explain this phenomenon with the so-called "meat paradox," which suggests that actual behavior is not always aligned with one's attitudes or intentions.

Figure 13: Respondent's willingness to pay more for products that respect animal welfare



Source: Own work.

5.4.3 Hypotheses testing

Hypothesis 1: Consumers will rank 'eating less meat' in the bottom half of sustainable behaviors in terms of environmental benefit compared to other sustainable behaviors.

In the first hypothesis, I aimed to test whether respondents rank 'eating less meat' in the upper or lower part of the six sustainable behaviors in terms of environmental benefit. I conducted a one-sided t-test, comparing the mean, which was set at level 3, with the actual mean. You can find the results in Appendix 5, Table 8 for Hypothesis 1.

The six sustainable behaviors in terms of environmental benefits included:

- Buying locally sourced products
- Buying products with less packaging materials
- Avoiding products that have been transported by plane
- Eating less meat

- Buying organic products

- Eating seasonal fruit and vegetables

Using a one-sample t-test, it is observed that the p-value is below 0.05 for all the claims. However, the claim "Eating less meat" is the second lowest rated claim, just after buying organic products. Therefore, we can conclude that consumers place it in the bottom half of sustainable behaviors, confirming the hypothesis. Participants prioritize other sustainable behaviors in terms of environmental benefit. Their top choices include buying products with less packaging materials, buying locally sourced products, eating seasonal fruits and vegetables, and avoiding products transported by plane when considering perceived environmental friendliness. They perceive buying organic products as least important when it comes to applying sustainable behavior with an environmental impact in mind.

Hypothesis 2: Abstainers, those who don't eat meat, will rank 'animal welfare' as the primary reason to reduce meat consumption.

For the second hypothesis, I aimed to determine the most important factor for abstainers in reducing meat consumption among six different options: health, environmental friendliness, animal welfare, meat price, taste, body weight, and other.

I conducted a one-sample t-test to examine whether the average of the test values differs from the averages of the other variables and whether these differences are statistically significant.

As demonstrated in Appendix 5, Table 8 for Hypothesis 2, the p-value for animal welfare is below 0.05, indicating statistically significant differences between the test value and the variable. Furthermore, animal welfare has the second-highest mean score. Therefore, I cannot confirm the hypothesis, as respondents ranked health as the most important factor for reducing meat consumption, followed by animal welfare.

Hypothesis 3: The motivations for reducing or avoiding meat consumption will exhibit statistically significant difference among standard consumers and reducers of meat consumption.

Before testing the research hypothesis regarding whether there are significant statistical differences among standard consumers and reducers in their motivations to reduce or avoid meat consumption, I conducted a Kolmogorov-Smirnov test to assess whether the variables followed a normal distribution. The p-values obtained were below 0.05, indicating that the data were not normally distributed. Consequently, I proceeded to use a non-parametric test. You can refer to the statistical output in Appendix 5, Table 9 for Hypothesis 3.

Furthermore, I assessed whether there were statistically significant differences in mean ranks for specific variables between reducers and abstainers.

The variables considered in this hypothesis were as follows:

- Health
- Environmental friendliness
- Animal welfare
- Meat price
- Taste
- Body weight

The average ranks were calculated in relation to another independent variable that differentiates the consumer groups.

The statistical significance of these differences was assessed using the non-parametric Mann-Whitney U test for independent samples. Among the selected variables (health, environmental friendliness, animal welfare, taste), p-values were below the 0.05 threshold, indicating statistically significant differences between the groups. However, for the variables meat price and body weight, the p-values were above 0.05, suggesting that there are no statistically significant differences among the groups for these variables, and they should be treated as equal.

In conclusion, we can confirm the hypothesis for the four selected variables (health, environmental friendliness, animal welfare, taste) that there are significant statistical differences among standard consumers and reducers. However, based on the results, we cannot make the same claim for the variables meat price and body weight.

Hypothesis 4: Consumers with higher level of education view veganism as more ethical than consumers with lower level of education.

For the fourth hypothesis I also needed to check whether data are normally distributed with the help of Kolmogorov Smirnov test which showed that the data are not normally distributed. In the following, I used a non-parametric test. I have tested ethical views on veganism based on education. The results are shown in Appendix 5, Table 10 for Hypothesis 4.

Firstly, I checked for statistically significant differences in mean ranks for the selected variable. The average mean ranks for education were calculated with respect to another independent variable, which divides the selected variables.

In the following, I used a Kruskal Wallis test to check whether the groups are statistically significantly different on average. The results showed p-values above the 0,05 threshold; therefore, we cannot talk about a statistically significant average.

Finally, I cannot confirm the hypothesis that those with higher level of education view veganism as more ethical.

Hypothesis 5: Women hold more positive views of vegetarianism compared to men.

Before testing the research hypothesis whether women tend to have more positive views of vegetarianism compared to men, I used the Kolmogorov Smirno test to check whether variables are normally distributed. Furthermore, with the help of this test, I determined which statistical test would be used later on. Refer to Appendix 5, Table 11 for Hypothesis 5.

The test showed p-values under the 0.05 threshold, indicating that the data are not normally distributed. Consequently, I used a non-parametric test. I tested for statistically significant differences in the average ranks of the selected variables (gender). While differences in average ranks are evident, the question is whether they are statistically significant. Women have a higher mean rank in 3 out of 5 variables. The high mean rank for women was observed in ethical views regarding vegetarianism, affordability, and nutritiousness of the vegetarian diet.

The statistical significance of differences was tested using the non-parametric Mann-Whitney U test for independent samples. This test does not require the data to meet conditions such as normal distribution. The p-value is below 0.05 for three pairs. Based on this, we can assert that women have statistically significantly more positive views, as indicated by their higher average rank in these three pairs.

Therefore, we can confirm the hypothesis. Women view vegetarianism as healthier, more affordable, and more nutritious than men.

Hypothesis 6: Women are more likely than men to hold beliefs that meat production is bad for the environment.

Before testing the research question whether women are more likely to hold beliefs than men that meat production is bad for the environment, I used the Kolmogorov Smirnoff test to check whether variables are normally distributed. Test showed p-values under 0,05 threshold, meaning that data are not normally distributed.

Secondly, I have applied a non-parametric test to analyze the hypothesis. Here I tested for statistically significant differences in the average ranks of the selected variables. Women have higher mean rank (183,07).

Statistical significance of differences was tested using the non-parametric Mann-Whitney U test for independent samples. The Kruskal-Wallis test checks whether the groups are statistically significantly different on average. Since the p-value is less than 0,05 we can claim that the groups are statistically different on average. Since women have a statistically higher mean rank, I confirmed the hypothesis that women are more likely to hold beliefs than men that meat production is bad for the environment.

Hypothesis 7: Consumers are willing to pay more for products that respect animal welfare.

With this hypothesis, I tested whether consumers would be willing to pay more for products that respect animal welfare or not. I used a binomial test to examine this hypothesis and confirmed that consumers are indeed willing to pay more for products that respect animal welfare. The proportion of answers indicating "I am willing to pay more" is 88%, which is statistically significant and higher. For the detailed statistical results, please refer to Appendix 5, Table 13 for Hypothesis 7.

5.5 Limitation of empirical research

I acknowledge that my online survey and recruitment methods may have contributed to a bias in participants' demographics, as most of the respondents were female. Additionally, only 15% of participants identified as flexitarians, and 16% identified as vegetarians. This unrepresentative sample may have skewed the number of participants within each consumer group. However, consumer profiles themselves represent distinct 'patterns of response,' which are valid constructs irrespective of the number of participants in each group. It should be further tested using a representative sample.

The questionnaire was intended for self-completion, which requires more effort from the respondents and consequently may result in low motivation to answer all the questions. I used closed-type questions to make it more user-friendly and easier to fill out; however, I did not obtain different variations which could be obtained with open-type questions. Despite the electronic means of survey administration, there is a possibility that some of the answers were given in accordance with socially desirable standards rather than reflecting the actual situation.

Due to all of the factors mentioned above, the survey results cannot be generalized to the entire population. Nevertheless, we gain some insights into the attitudes of consumers towards meat consumption in Slovenia.

6 DISCUSSION

The majority of results and findings obtained through data analysis were largely consistent with previous research studies.

To begin, among the 345 Slovenian respondents, 82% were female, suggesting that women tend to be more engaged with meat production and consumption practices. The most common respondent in this study tends to be employed, falls within the age group of 18 to 35, holds a bachelor’s degree, and has an average income. Furthermore, among the respondents, the majority identified as meat eaters.

Consumer awareness of the impact of meat production on the environment was assessed by placing the claim 'eating less meat' among other sustainable food behaviors. Surprisingly, it was rated significantly lower by the respondents compared to all other sustainable behaviors.

This suggests that Slovenian consumers may not be well-informed about the environmental impact of meat production and consumption, as well as its effects on animal welfare and human health. This is surprising, considering that reduced meat consumption could likely have much greater and more widespread environmental benefits compared to many, if not all, of the other listed behaviors. These findings align with a study by Lentz (2020, pp. 139), where consumers also rated eating less meat as less environmentally friendly.

These findings are consistent with the fact that more than half of the respondents, including the majority who identify as omnivores, still consume meat. What's surprising, however, is that more than half of the respondents mentioned considering animal welfare when buying meat products. This suggests that they are aware of the ethical aspect but face a gap between their attitudes and behaviors.

To understand consumer motivation to reduce or stop meat consumption, we examined different consumer groups: standard consumers, reducers, and abstainers. For standard consumers, the most important factor was health benefits. In contrast, for abstainers and reducers, animal welfare ranked as the most crucial factor. These results indicate that ethical concerns have been the primary motivation for individuals who have altered their meat consumption habits. However, this does not hold true for standard consumers.

Interestingly, a different study by Lentz (2022, pp. 131) reported distinct results, where the cost of meat was the dominant factor for standard consumers. For reducers, health was the most significant factor, while for abstainers, animal welfare topped the list. These disparities confirm that there are statistically significant differences among various consumer groups regarding their meat consumption practices.

Consumer willingness to either stop or reduce meat consumption was evenly split, with half currently attempting to reduce meat consumption, while the other half was not. When asked about their willingness to reduce meat intake in the near future, consumers seemed less enthusiastic, but they still expressed some degree of openness to considering this option. However, when the same question was asked with a six-month time frame, the majority—more than 75% of respondents—were not very inclined to make dietary changes.

In contrast, a substantial majority, more than 75% of respondents, were willing to pay more for products that consider animal welfare. This finding aligns with a study by Ghione (2013, pp. 15), which reported an even higher percentage—91%—of respondents willing to pay more for such products. These results suggest that consumers might not be comfortable with immediate dietary changes, but they are open to considering options that promote their health, animal welfare, and the environment.

The research results indicated that education did not have a statistically significant effect on the perception of veganism as being more ethical. The p-values obtained were above the 0.05 threshold, indicating that there was no statistically significant difference in perception based on education level. This contrasts with the findings of a study by Bryant (2019, pp.

8), which reported a positive correlation between education and various opinions regarding vegetarianism and veganism. Specifically, individuals with a higher level of education viewed vegetarianism as more affordable and veganism as more ethical.

In contrast, gender had a statistically significant effect on beliefs regarding whether meat production is detrimental to the environment. The research results indicated that women are more likely than men to hold the belief that meat production is harmful to the environment. These findings align with a study by Mullee (2017, pp. 301), which also reported that women were more inclined than men to hold such beliefs about the environmental impact of meat production and the healthiness of meat consumption. Additionally, this study confirmed that men generally exhibited more positive attitudes towards meat consumption. This aligns with expectations, as previous research by Gossard and York (2003) has shown that meat is often associated with masculinity.

In summary, despite the likelihood of meat consumption having greater and more widespread environmental benefits compared to many other sustainable behaviors, respondents consistently ranked 'eating less meat' significantly lower. Interestingly, over half of the respondents indicated that they consider animal welfare when purchasing meat products, suggesting awareness of the issue but also revealing a gap between attitudes and behavior. Differences among various consumer groups became evident when examining motivations to reduce meat consumption. However, when assessing consumer willingness to actually reduce meat consumption within specific timeframes, the initial enthusiasm seemed to wane. This suggests that respondents are indeed aware of the issue but face challenges in translating their attitudes into concrete actions. Additionally, my findings indicate that education does not have a statistically significant effect on the perception of veganism as more ethical. In contrast, gender significantly influences beliefs regarding the environmental impact of meat production.

7 CONCLUSION

In conclusion, the results of our data analysis align with previous research in several aspects. The study, conducted among Slovenian respondents, revealed that women tend to be more engaged in meat production and consumption practices, as evidenced by the majority of respondents being women, which suggests a higher level of interest in these topics among females. Furthermore, the majority of respondents were employed, falling within the 18-35 age group, held bachelor's degrees, and reported earning an average income. Additionally, most of our respondents identified themselves as meat eaters.

However, our study has brought to light certain gaps in consumer awareness regarding the environmental impact of meat production. Notably, the claim that 'eating less meat' is a sustainable behavior received a significantly lower rating compared to other sustainable behaviors. This finding suggests that there is a lack of information among Slovenian

consumers about the far-reaching consequences of meat consumption on the environment, animal welfare, and human health.

This knowledge gap is of paramount importance because an uninformed consumer base may remain indifferent to the environmental repercussions of meat consumption, hindering potential behavioral changes. Greater awareness of the environmental impact of meat production is crucial, as it could not only prompt individuals to reduce their meat intake on a personal level but also lay the groundwork for broader policies encouraging reduced meat consumption.

Of course, the effectiveness of such awareness-raising efforts may hinge on the receptiveness and characteristics of the target audience. Identifying consumers who are genuinely concerned about the environment or those who are open to reducing meat consumption is key to crafting persuasive messages. Ultimately, reducing meat consumption has the potential to yield significant environmental benefits, making informed consumer choices all the more important.

Interestingly, more than half of the respondents expressed concerns about animal welfare when purchasing meat products, demonstrating an awareness of the issue. However, this awareness did not always translate into corresponding behavior, indicating a gap between attitudes and actions. For future studies, it would be interesting to further investigate the causes that prevent consumers from altering their meat consumption practices. It would be valuable to understand the factors that act as barriers, hindering consumers from taking action and moving forward. With this knowledge, I believe marketers could identify the challenges and choose the right communication strategies to bridge the gap.

Understanding motivations is complex, regardless of the behavior under study. When it comes to meat reduction, the strength of motivations is heavily dependent on current meat-eating habits. This study explored consumer motivations among different groups, revealing that ethical concerns, particularly animal welfare, were the main factors driving individuals who had reduced or abstained from meat consumption. Conversely, for standard consumers, more personal concerns like health benefits seem to be the primary motivation. Encouraging initial interest in plant-based diets among meat-eating consumers may be best achieved through messages that address potential health benefits, followed by more thorough discussions about the environmental and/or animal welfare impacts, in order to shift initial interest into long-term motivation to reduce meat intake. Overall, the degree of meat reduction seems to correlate with an increase in more ethically driven motivations.

Regarding consumer willingness to reduce meat consumption in the future, respondents showed some hesitancy, particularly when considering a six-month timeframe. However, a majority expressed a willingness to pay more for products that considered animal welfare, indicating a desire for healthier and more ethically conscious options.

The study found no statistically significant effect of education on the perception of veganism as being more ethical. However, gender had a significant impact on beliefs about meat production's environmental impact, with women more likely to hold negative views. These results align with previous studies that also indicated women's greater concern for the environment and a more positive attitude toward vegetarianism compared to men. For future studies, it would be interesting to further investigate and understand why differences in perception exist between men and women.

It is important for future studies to continue focusing on meat reduction motivations and the differences in perception across consumer groups. It is also vital to not adopt too narrow of a focus, as addressing other factors such as barriers (e.g., difficulty in breaking habits, the perceived necessity of meat for nutrition, etc.) can also be important when promoting meat reduction among consumers. It is important to note that individuals may be deterred from the idea of meat reduction due to perceived barriers rather than a lack of motivation.

There is evidence that ethical consumers, people who are influenced by environmental and ethical considerations when choosing products and services, are on the rise. More and more people are becoming aware of the issues that come with meat production and consumption practices, as shown in my research; however, they often fail to act accordingly. Furthermore, these consumers seek out products and brands that align with their ethical principles, driving businesses to adopt more sustainable and socially responsible practices. As they demand transparency, fair wages, and eco-friendly options, companies are increasingly compelled to rethink their strategies and make positive changes. Ethical consumerism represents a pivotal shift towards a more conscious and responsible approach to consumption, ultimately contributing to a more equitable and sustainable world.

Understanding these insights, marketers can effectively segment consumers, develop tailored products, and implement appropriate communication strategies to target specific groups. This knowledge, coupled with past research and ongoing studies, equips them to comprehend consumer behavior and mitigate negative reactions, particularly among the larger traditional meat consumer segment.

In summary, this research reveals that meat consumption can indeed offer significant environmental impact. However, it is noteworthy that respondents ranked "eating less meat" lower in terms of sustainability. This study also highlights a significant gap between attitudes and behavior, as many respondents expressed concerns about animal welfare and a willingness to reduce meat consumption, yet this sentiment doesn't always translate into actual consumption patterns. Variations in motivations and willingness to change meat consumption habits were observed among different consumer groups. Interestingly, education did not significantly influence perceptions of veganism's ethicality, whereas gender had a substantial impact on beliefs regarding meat production's environmental impact. These findings underscore the complex dynamics of consumer behavior and

emphasize the importance of bridging the gap between attitudes and actions in promoting sustainable and ethical food choices.

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APPENDICES

Appendix 1: Summary in Slovene language

Skozi leta je etična potrošnja igrala ključno vlogo pri iskanju bolj trajnostno naravnanih izdelkov, podjetij in trgov na sploh. Etično potrošništvo, kot je opredeljeno v Etičnem poročilu o potrošniških trgih, pomeni "osebno razporeditev sredstev, vključno z potrošnjo in naložbami, kjer je potrošnik obveščen o določenih zadevah - bodisi človekovih pravicah, socialni pravičnosti, okolju ali dobrem počutja živali" (Co-op, 2019).

Po poročilu Greenpeace (2018) je kmetijstvo eden od ključnih dejavnikov podnebnih sprememb. Prehranski sistem, je odgovoren za četrtino vseh emisij toplogrednih plinov. Del potrošnikov v razvitih državah je začel zmanjševati ali nadomeščati meso ne samo zaradi lastnega zdravja in okoljskih vplivov, ampak tudi zaradi etičnih skrbi za dobro počutje živali (Lin-Schilstra & Fischer, 2020). Kot odziv na prekomerno potrošnjo mesnih izdelkov so se skozi čas razvile različne vrste prehrane. Med njimi so veganstvo, vegetarijanstvo in fleksitarianstvo. Potrošniki so postali bolj ozaveščeni o etičnih, okoljskih in zdravstvenih skrbih ter se naučili postavljati težka vprašanja o izvoru svoje hrane in načinu proizvodnje.

Namen magistrske naloge je preučiti etično potrošniško vedenje potrošnikov v kontekstu uživanja mesa. Cilj je preučiti ozaveščenost potrošnikov o etičnih pomislekih v zvezi z uživanjem mesa, raziskati motivacije potrošnikov za uživanje hrane rastlinskega izvora ali zmanjšanje uživanja mesa, ter preučiti vzroke oziroma motivacijo potrošnikov za prenehanje ali zmanjšanje porabe mesa.

V magistrskem delu preverjamo sledeče hipoteze:

Hipoteza 1: Potrošniki bodo "zmanjševanje porabe mesa" postavili v spodnjo polovico trajnostnih vedenj glede okoljskih koristi v primerjavi z drugimi trajnostnimi vedenji.

Hipoteza 2: Tisti, ki ne uživajo mesa, bodo navedli "dobrobit živali" kot najpomembnejši razlog za zmanjšanje porabe mesa.

Hipoteza 3: Motivi za zmanjšanje ali izogibanje uživanju mesa bodo statistično značilno različni med standardnimi potrošniki in potrošniki, ki so zmanjšali porabo mesa.

Hipoteza 4: Potrošniki z višjo stopnjo izobrazbe dojemajo veganstvo kot bolj etično v primerjavi s potrošniki z nižjo stopnjo izobrazbe.

Hipoteza 5: Ženske imajo bolj pozitivno mnenje o vegetarijanstvu v primerjavi z moškimi.

Hipoteza 6: Ženske so bolj verjetno prepričane, da je proizvodnja mesa škodljiva za okolje, kot moški.

Hipoteza 7: Potrošniki so pripravljeni plačati več za izdelke, ki spoštujejo dobrobit živali.

Raziskava je bila izvedena v Sloveniji z uporabo spletnega vprašalnika, na katerega je 345 respondentov ustrezno izpolnilo vprašalnik. V vzorec je bilo vključenih 61 moških, kar predstavlja 17,7%, ter 284 ženskih respondentov, kar predstavlja 82,3% celotnega vzorca. Večina anketirancev je bila uvrščena v starostno skupino od 18 do 35 let, kar predstavlja 71,3% vzorca. Največji delež vprašanih je imelo zaključeno dodiplomsko izobrazbo, ki jim sledijo vprašani z magisterijem. Največ vprašanih je bilo zaposlenih, ravno tako jih največ prejema povprečen dohodek. Malo manj kot polovica respondentov je bilo standardnih potrošnikov, ki jejo meso, sledili so jim vegeterijanci, vegani in nato fleksitarijanci.

Če povzamemo, raziskava kaže, da medtem ko uživanje mesa prinaša znatne koristi za okolje, so anketiranci manjšo porabo mesa uvrstili nižje v smislu trajnosti. Študija je poudarila vrzel med stališči in vedenjem, pri čemer je veliko anketirancev razmišljalo o dobrobiti živali in pripravljenosti zmanjšati porabo mesa, vendar tega niso odražali v svojem dejanskem vedenju glede uživanja mesa. Različne skupine potrošnikov so pokazale razlike v motivaciji in pripravljenosti spremeniti svoje navade glede uživanja mesa. Najpomembnejši dejavnik za standardne potrošnike, ki želijo zmanjšati vnos mesa, bi bili zdravstveni razlogi kateri sledi dobrobit živali. Druge razloge za zmanjšanje vnosa mesa bi predstavljale alergije, počutje in dostop do drugih kakovostnih izdelkov. Po drugi strani pa je za vegeterijancih in veganih največji faktor za zmanjšanje porabe mesa dobrobit živali, kateri sledi okoljska korist. Ko sem testirala, kakšna bi bila pripravljenost zmanjšanja porabe mesa v prihodnosti, specifično v naslednjih šestih mesecih, sem ugotovila, da niso ravno pripravljeni zmanjšati porabe mesa v tem časovno omejenm obdobju. Po drugi strani pa je zanimivo, da so pripravljeni plačati več za meso, ki upoštva dobrobit živali. Izobrazba ni bistveno vplivala na dojemanje etičnosti veganstva, medtem ko je spol pomembno vplival na prepričanja o vplivu proizvodnje mesa na okolje. Te ugotovitve poudarjajo zapleteno dinamiko vedenja potrošnikov in pomen odpravljanja vrzeli med stališči in dejanji pri spodbujanju trajnostne in etične izbire hrane.

Za prihodnje študije bi bilo zanimivo nadalje raziskati, kateri so vzroki, ki potrošnikom preprečujejo, da bi spremenili svoje prakse uživanja mesa. Zanimivo bi bilo razumeti, kateri so tisti vmesni dejavniki, ki potrošnikom preprečujejo, da bi ukrepali in naredili korak naprej. Zanimivo pa bi bilo tudi raziskati razlike v percepciji uživanja mesa med spoloma in njenim vplivom na okolje in človeško telo.

Appendix 2: Survey questionnaire in Slovene language

Pozdravljeni,sem študentka Ekonomske fakultete in v okviru magistrske naloge raziskujem stališča porabnikov do uživanja mesa.Anketa je anonimna, za izpolnjevanje pa boste potrebovali približno 5 minut časa. Zbrani podatki bodo obravnavani strogo zaupno in bodo uporabljeni izključno za pripravo te magistrske naloge.Za vaše sodelovanje se vam zahvaljujem.

Q1 - Kakšen je vaš način prehranjevanja?

◯ Vegan
◯ Vegeterijanec
◯ Flexitarijanec
(Jem povečini hrano rastlinskega izvora, vendar sem fleksibilen/-na glede uživanja mesa, bodisi je to na dnevni, tedenski ali mesečni ravni)
◯ Vsejedec

Q2 - Na lestvici od 1 do 5 (1 – zelo majhna okoljska korist in 5 – zelo velika okoljska korist) ocenite, kako menite, da vsaka izmed naštetih prehranjevalnih vedenj vpliva na okoljsko korist.

	Zelo majhna okoljska korist	Majhna okoljska korist	Niti majhna niti velika okoljska korist	Velika okoljska korist	Zelo velika okoljska korist
Kupovanje proizvodov lokalnega izvora	◯	◯	◯	◯	◯
Kupovanje proivodov z manj embalažnega materiala	◯	◯	◯	◯	◯
Izogibanje proizvodom, ki so bili transportirani z letalom	◯	◯	◯	◯	◯
Jesti manj mesa	◯	◯	◯	◯	◯

Kupovanje organskih izdelkov	○	○	○	○	○
Uživanje sezonskega sadja in zelenjave	○	○	○	○	○

Q3 - Preostanek ankete se bo nanašal na uživanje mesa. Pri odgovarjanju na vprašanja upoštevajte, da se beseda "meso" nanaša na rdeče in belo meso (npr. govedina, jagnjetina, svinjina, piščanec, puran, ribe, morski sadeži itd.), ki je bodisi nepredelano (npr. piščančje prsi, zrezek, ribji file) ali predelano (npr. klobase, salama, mleto meso)

Q4 - Kako pogosto uživate meso ali izdelke, ki vključujejo meso?

○ Večkrat na dan
○ Dnevno
○ Večkrat na teden
○ Redko
○ Nikoli

IF (1) Q4 = [1, 2, 3, 4]

Q5 - Ste morda že ali pa se trenutno trudite zmanjšati osebno porabo mesa?

○ Da
○ Ne

IF (1) Q4 = [1, 2, 3, 4]

Q6 - Na lestvici od 1 do 7 (1 – sploh ne pripravljen, 7 – zelo pripravljen), kako pripravljeni bi bili razmisliti o zmanjšanju porabe mesa v bližnji prihodnosti?

Sploh ne pripravljen — Zelo pripravljen

0 — 7

IF (1) Q4 = [1, 2, 3, 4]

Q7 - Specifično, ali nameravate v naslednjih šestih mesecih zmanjšati porabo mesa?

Sploh ne nameravam — V celoti nameravam

0 — 7

IF (1) Q4 = [1, 2, 3, 4]

Q8 - Kako pomemben, če sploh, bi vsak od naslednjih dejavnikov bil pri zmanjšanju porabe mesa?

	Zelo nepomem-bmo	Nepomembno	Niti pomembno, niti nepomem-bno	Pomembno	Zelo pomembno
Zdravje	○	○	○	○	○
Bolj okolju pri-jazno	○	○	○	○	○
Dobrobit živali	○	○	○	○	○
Visoka cena mesa	○	○	○	○	○
Okus	○	○	○	○	○
Telesna teža	○	○	○	○	○
Drugo:	○	○	○	○	○

IF (1) Q4 = [1, 2, 3, 4]

Q9 - Ko kupujete meso ali pomislite na dobrobit živali za ta izdelek?

○ Da, večino časa
○ Da, včasih
○ Ne, nikoli
○ Ne kupujem mesa

○ Ne vem

IF (1) Q4 = [1, 2, 3, 4]

Q10 - Ko kupujete meso, kakšno meso izberete?

Možnih je več odgovorov

☐ Organsko meso
☐ Proizvedeno lokalno
☐ Meso kupujem od kmetov, ki jim zaupam
☐ Meso pridelano v določeni državi
☐ Od priznanih proizvajalcev
☐ Najcenejše

IF (2) Q1 = [1, 2, 3] and Q5 = [1] and Q4 = [5]

Q11 - Pomislite, kdaj ste se prvič odločili o zmanjšanju porabe mesa. Kako pomemben je bil vsak od naslednjih dejavnikov pri vaši odločitvi o zmanjšanju vnosa mesa?

	Zelo nepomem-bmo	Nepomembno	Niti pomembno, niti nepomem-bno	Pomembno	Zelo pomembno
Zdravje	○	○	○	○	○
Bolj okolju pri-jazno	○	○	○	○	○
Dobrobit živali	○	○	○	○	○
Visoka cena mesa	○	○	○	○	○
Okus	○	○	○	○	○
Telesna teža	○	○	○	○	○
Drugo:	○	○	○	○	○

Q12 - Na lestvici od 1 do 5, izberite kar najbolj sovpada z vašimi stališči glede uživanja mesa. OPOMBA: Točke ki so bližje številki 1, pomenijo da se bolj strinjate z atributom na levi, ocene

bližje številki 5 pa pomenijo, da se bolj strinjate z atributom na desni.

	1	2	3	4	5	
Slabo	○	○	○	○	○	Dobro
Neprijetno	○	○	○	○	○	Prijetno
Proti	○	○	○	○	○	Za
Neugodno	○	○	○	○	○	Ugodno
Negativno	○	○	○	○	○	Pozitivno

Q13 - Ocenite svoje strinjanje z naslednjimi trditvami.

	Sploh se ne strinjam	Ne strinjam se	Niti se strinjam, niti se ne strinjam	Strinjam se	Popolnoma se strinjam
Ljudje, ki so mi blizu in mi veliko pomenijo, menijo, da bi moral/-a jesti meso.	○	○	○	○	○

Q14 - Glede na ljudi, ki vam veliko pomenijo, koliko vplivajo na vašo odločitev o uživanju ali neuživanju mesa.

	Niti ne	Malo	Zmerno	Veliko	Ne vem
	○	○	○	○	○

Q15 - Ocenite svoje strinjanje s trditvami o vaših trenutnih navadah o uživanju mesa.

	Sploh se ne strinjam	Ne strinjam se	Niti se strinjam, niti se ne strinjam	Strinjam se	Popolnoma se strinjam
Prepričan/-a sem, da bi lahko spremenil svoje navade, če bi tako želel.	○	○	○	○	○
Spreminjanje mojih navad je odvisno povsem od mene.	○	○	○	○	○
Spreminjanje mojih navad ni nekaj, kar je pod mojim nadzorom.	○	○	○	○	○

Q16 - Na lestvici od 1 do 5 ocenite vsak vidik vegeterijanstva.

	1	2	3	4	5	
Nezdravo	○	○	○	○	○	Zdravo
Neetično	○	○	○	○	○	Etično
Okolju neprijazno	○	○	○	○	○	Okolju prijazno
Cenovno nedostopno	○	○	○	○	○	Cenovno dostopno
Nehranljivo	○	○	○	○	○	Hranljivo

Q17 - Na lestvici od 1 do 5 ocenite vsak vidik veganstva.

	1	2	3	4	5

Nezdravo	○	○	○	○	○	Zdravo
Neetično	○	○	○	○	○	Etično
Okolju neprijazno	○	○	○	○	○	Okolju prijazno
Cenovno nedostopno	○	○	○	○	○	Cenovno dostopno
Nehranljivo	○	○	○	○	○	Hranljivo

Q18 - V kolikšni meri se strinjate z naslednjimi izjavami glede veganstva, vegetarijanstva in uživanja mesa na splošno?

	Sploh se ne strinjam	Ne strinjam se	Niti se strinjam, niti se ne strinjam	Strinjam se	Popolnoma se strinjam
Govedoreja ima velik vpliv na okolje	○	○	○	○	○
Uživanje mesa ni zdravo	○	○	○	○	○
Proizvodnja mesa je škodljiva za okolje	○	○	○	○	○
Zamenjal/-a bi trgovino, če bi druga trgovina prodajala več veganskih in vegeterijanskih izdelkov	○	○	○	○	○

Zmanjšanje porabe mesa je učinkovit način za boj proti podnebnim spremembam	○	○	○	○	○
Kmetijstvo in živinoreja skupaj sta eden glavnih vzrokov podnebnih sprememb	○	○	○	○	○
Moral/-a bi jesti manj mesa	○	○	○	○	○

Q19 - Se zanimate za dobrobit živali?

○ Da
○ Bolj ali manj
○ Nikoli ne razmišljam o tem
○ Ne
○ Ne vem

Q20 - Bi bili pripravljeni plačati več za izdelke, ki upoštevajo vidik dobrobiti živali?

○ Do 10% več
○ Med 10 in 20% več
○ Nad 20% več
○ Nisem pripravljen/-a plačati več
○ Ne vem

IF (3) Q1 = [4]

Q21 - Ocenite svoj namen zmanjšanja porabe mesa.

	Zelo malo verjetno	Malo verjetno	Niti verjetno, niti malo verjetno	Verjetno	Zelo verjetno	Vpišite besedilo
	○	○	○	○	○	○

Q22 - Skoraj ste že končali. Naslednja vprašanja se nanašajo na sociodemografske značilnosti.

Q23 - Vaša starost?

○ Pod 18
○ 18-35
○ 36-53
○ 54-71
○ Nad 71

Q24 - Spol?

○ Moški
○ Ženska

Q25 - Najvišja stopnja izobrazbe, ki ste jo dosegli?

○ Osnovna šola
○ Srednja šola
○ Diploma
○ Magisterij
○ Drugo: _____

Q26 - Kakšen je vaš status?

○ Študent
○ Zaposlen
○ Samozaposlen
○ Brezposeln

◯ Upokojen
◯ Drugo: ____

Q27 - Kako bi ocenili mesečni dohodek vašega gospodinjstva v primerjavi s splošno populacijo v državi?

◯ Nad povprečjem
◯ Povprečen
◯ Pod povprečjem

IF (4) Q27 = [2] (Povprečen)

Q28 - V kolikor je povprečen:

◯ Nekoliko nad povprečjem
◯ Prav v povprečju
◯ Nekoliko pod povprečjem

Appendix 3: Survey questionnaire in English language

[Q1] What is your way of eating or your diet?

- **Vegan** (avoiding products derived entirely from animals)
- **Vegetarian**
- **Flexitarian** (I mostly eat plant-based foods, but I am flexible about my meat intake, whether it is on a daily, weekly or monthly basis)
- **Omnivore**

[Q2] On a scale of 1 to 5 (1 - very low environmental benefit and 5 - very high environmental benefit), rate how you think each of the following eating behaviours affects the environmental benefit.

- Buying locally sourced products
- Buying products with less packaging material
- Avoiding products that have been transported by plane
- Eating less meat
- Buying organic products
- Eating seasonal fruit and vegetables

[Q3] *The remainder of the survey will focus on meat consumption. When answering the questions, please note that the word "meat" refers to red and white meat (e.g. beef, lamb, pork, chicken, turkey, fish, seafood, etc.) that is either unprocessed (e.g. chicken breast, steak, fish fillet) or processed (e.g. sausages, salami, minced meat).*

[Q4] How often do you eat meat or products containing meat?

- Several times a day
- Daily
- Several times a week
- Rarely
- Never

Skip to: Q7 if Q2 = Never

[Q5] Have you or are you currently trying to reduce your personal meat consumption?

- Yes
- No

Skip to: Q7 if Q3 = Yes

[Q6] On a scale of 1 to 7 (1 - not at all prepared, 7 - very prepared), how prepared would you be to consider reducing your meat consumption in the near future?

[Q7] Specifically, do you plan to reduce your meat consumption in the next six months?

(1 – i do not intend to; 7 – I fully intend to)

[Q8] How important, if at all, would each of the following factors be in reducing meat consumption?
(1 - not at all important; 4 - moderately important; 7 - extremely important)

- Health
- More environmentally friendly
- Animal welfare
- High meat price
- Taste
- Body weight
- Other: (Please specify)

Skip to Q9:

If Q2 = Never

If Q3 = Yes

[Q9] When you buy meat, do you think about animal welfare for this product?

- Yes, most of the time
- Yes, sometimes
- No, never
- I don't buy meat
- I don't know

[Q10] When buying meat, what kind of meat do you choose?

- Organic
- Locally produced
- I buy meat from farmers I trust
- Meat, produced in certain countries
- From recognised producers
- The cheapest

[Q11] Think back to when you first decided to cut down on meat consumption. How important was each of the following factors in your decision to reduce your meat intake?

(1 – not at all important; 4 – moderately important; 7 – extremely important)

- Health
- More environmentally friendly
- Animal welfare
- High meat pride

- Taste
- Body weight
- Other: (Please specify)

[Q12] On the scales provided, please choose what most closely aligns with your thoughts and attitudes towards the act of consuming meat. NOTE: Scores closer to 1 mean you agree more with the attribute on the left and scores closer to 5 mean you agree more with the attribute on the right.

Good/Bad:

Unpleasant/Pleasant:

For/Againt:

Neugodno/ugodno:

NegativePositive:

[Q13] On a scale of 1 to 5, rate your agreement with the following statement.

People who are important to me think that I should eat meat.

[Q14] On a scale of 1 to 5, rate your agreement with the following statement.

In regards to people who are important to you, how much do they influence your actions to either consume or not consume meat?

[Q15] On a scale of 1 to 5, rate your agreement with the statements about your current meat consumption habits.

I am confident that I could change my habits **if** I wanted to.

Whether I change my habits is entirely up to me.

Changing my habits is **not** something that is under my control.

[Q16] On a scale of 1 to 5, rate each aspect of **vegetarianism**. (from 1- most negative to 5 – most positive.

- Unealthy/healthy
- **Unethical/ethical**
- Environmentally unfriendly/environmentally friendly
- Not affordable/affordable
- Non-nutritious/nutritious

[Q17] On a scale of 1 to 5, rate each aspect of **veganism**. (from 1- most negative to 5 – most positive.

- Healthy/unhealthy
- **Unethical/ethical**
- Environmentally unfriendly/environmentally friendly

- Not affordable/affordable
- Non-nutritious/nutritious

[Q18] To what extent do you agree with the following statements regarding veganism, vegetarianism and meat consumption in general?

- Cattle farming has a big impact on the climate
- Meat consumption is unhealthy
- **Meat production is bad for the environment**
- I would change supermarkets if another supermarket sold more vegetarian and vegan products
- Reducing meat consumption is an effective way to combat climate change
- Agriculture and livestock farming together are one of the main causes of climate change
- I should eat less meat

[Q19] Are you interested in animal welfare?

- Yes
- More or less
- I never think about it
- No
- I don't know

[Q20] Would you be willing to pay more for products that take animal welfare into account?

- Up to 10% more
- Between 10 and 20% more
- Over 20% more
- I am not willing to pay more
- I don't know

[Q21] Assess your intention to reduce meat consumption (from 1 – Very unlikely to 5 – Very likely).

[Q22] *You are almost finished. The following questions are related to socio-demographic characteristics.*

[Q23] What is your age?

- Under 18
- 18 - 35
- 36 - 53
- 54 - 71
- Over 71

[Q24] What is your gender?

- Male
- Female

[Q25] What is the highest level of education you have attained?

- Primary school
- Secondary school
- Diploma
- Master’s degree
- Other (Please specify):

[Q26] What is your occupation?

- Student
- Employed
- Self-employed
- Unemployed
- Retired
- Other (Please specify):

[Q27] How would you estimate your household's monthly income compared to the general population in your country?

- Above average
- Average
- Below average
-

[Q28] If it is average:

- Slightly above average
- On average
- Slightly below average

Appendix 4: Analysis of survey results

Table 1: Gender structure of the respondents

	Frequency	Percentage
Male	61	17,7
Female	284	82,3
Total	345	100,0

Table 2: Age structure of the respondents

	Frequency	Percentage
Under 18	3	,9
18-35	246	71,3
36-53	76	22,0
54-71	19	5,5
Above 71	1	,3
Total	345	100,0

Table 3: Education structure of the respondents

	Frequency	Percentage
Total	345	100,0
Bachelor's degree	174	50,4
Master's degree	92	26,7
High school	77	22,3
Elementary school	1	,3
Other	1	,3

Table 4: Employment status of the respondents

	Frequency	Percentage
Total	345	100,0
Employed	189	54,8

Student	93	27,0
Self-employed	26	7,5
Unemployed	25	7,2
Retired	8	2,3
Other	4	1,2

Table 5: Income structure of the respondents

	Frequency	Percentage
Above average	75	21,7
Average	219	63,5
Below average	51	14,8
Total	345	100,0

Table 6: Way of eating of the respondents

	Frequency	Percentage
Vegan	136	26,7
Vegetarian	83	16,3
Flexitarian	75	14,7
Meat eater	216	42,4
Total	510	100,0

Appendix 5: Testing research hypotheses

Hypothesis 1:

Table 7: Perceived environmental friendliness of different sustainable behaviors

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Buying locally sourced products	347	4,33	,838	,045
Buying products with less packaging material	347	4,54	,772	,041
Avoiding products that have been transported by plane	347	4,22	,953	,051
Eating less meat	347	3,91	1,308	,070
Buying organic products	347	3,58	1,108	,059
Eating seasonal fruit and vegetables	347	4,30	,844	,045

One-Sample Test

	Test Value = 3					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Buying locally sourced products	29,601	346	,000	1,331	1,24	1,42
Buying products with less packaging material	37,132	346	,000	1,539	1,46	1,62
Avoiding products that have been transported by plane	23,896	346	,000	1,222	1,12	1,32
Eating less meat	12,966	346	,000	,911	,77	1,05
Buying organic products	9,791	346	,000	,582	,47	,70
Eating seasonal fruit and vegetables	28,625	346	,000	1,297	1,21	1,39

Hypothesis 2:

Table 8: Analysis of importance of different factors to reduce meat consumption

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Health	198	3,80	1,217	,087
More environmentally friendly	198	3,47	1,220	,087
Animal welfare	198	3,79	1,235	,088
High meat price	198	2,97	1,160	,082
Taste	198	3,60	1,249	,089
Body weight	198	3,04	1,254	,089
Other:	29	3,03	1,476	,274

One-Sample Test

	Test Value = 3					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Animal welfare	9,034	197	,000	,793	,62	,97

Hypothesis 3:

Table 9: Analysis of differences among standard consumers and reducers to reduce/avoid meat consumption

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
What is your way of eating or your diet?		Statistic	df	Sig.	Statistic	df	Sig.
Health	Reducer	,272	10	,035	,802	10	,015
	Standard	,222	17	,026	,887	17	,042
More environmentally friendly	Reducer	,254	10	,067	,833	10	,036
	Standard	,190	17	,105	,868	17	,021
Animal welfare	Reducer	,329	10	,003	,655	10	,000
	Standard	,175	17	,175	,891	17	,048

High meat price	Reducer	,202	10	.200*	,878	10	,124
	Standard	,206	17	,054	,920	17	,150
Taste	Reducer	,258	10	,058	,903	10	,234
	Standard	,276	17	,001	,834	17	,006
Body weight	Reducer	,246	10	,089	,874	10	,111
	Standard	,250	17	,006	,787	17	,001
Other:	Reducer	,259	10	,055	,825	10	,029
	Standard	,195	17	,085	,870	17	,022

Ranks

What is your way of eating or your diet?		N	Mean Rank	Sum of Ranks
Health	Reducer	55	114,55	6300,00
	Standard	137	89,26	12228,00
	Total	192		
More environmentally friendly	Reducer	55	135,49	7452,00
	Standard	137	80,85	11076,00
	Total	192		
Animal welfare	Reducer	55	132,58	7292,00
	Standard	137	82,01	11236,00
	Total	192		
High meat price	Reducer	55	92,25	5074,00
	Standard	137	98,20	13454,00
	Total	192		
Taste	Reducer	55	83,77	4607,50
	Standard	137	101,61	13920,50
	Total	192		
Body weight	Reducer	55	101,03	5556,50
	Standard	137	94,68	12971,50
	Total	192		

	Reducer	10	17,15	171,50
Other:	Standard	17	12,15	206,50
	Total	27		

Hypothesis 4:

Table 10: Analysis of ethical views on veganism based on education

Tests of Normality

What is the highest level of education you have attained?		Kolmogorov-Smirnov[b]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Unethical - ethical	High school	,414	77	,000	,633	77	,000
	Diploma	,374	174	,000	,693	174	,000
	Master's	,341	92	,000	,730	92	,000

Ranks

What is the highest level of education you have attained?		N	Mean Rank
Unethical - ethical	High school	77	185,01
	Diploma	174	172,33
	Master's	92	160,49
	Total	343	

Test Statistics[a,b]

	Chi-Square	df	Asymp. Sig.
Unethical - Ethical	3,442	2	,179

Hypothesis 5:

Table 11: Analysis of gender differences regarding different views on vegetarianism

Tests of Normality

	Gender	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Unhealthy - Healthy	Man	,211	61	,000	,899	61	,000
	Woman	,186	284	,000	,866	284	,000
Unethical - Ethical	Man	,183	61	,000	,850	61	,000
	Woman	,220	284	,000	,838	284	,000
Environmentally unfriendly - Environmentally friendly	Man	,176	61	,000	,902	61	,000
	Woman	,175	284	,000	,872	284	,000
Not affordable - Affordable	Man	,194	61	,000	,908	61	,000
	Woman	,195	284	,000	,869	284	,000
Non-nutritious - Nutritious	Man	,170	61	,000	,881	61	,000
	Woman	,258	284	,000	,829	284	,000

a. Lilliefors Significance Correction

Ranks

	Gender	N	Mean Rank	Sum of Ranks
Unhealthy - Healthy	Man	61	128,03	7810,00
	Woman	284	182,66	51875,00
	Total	345		
Unethical - Ethical	Man	61	165,86	10117,50
	Woman	284	174,53	49567,50
	Total	345		
Environmentally unfriendly - Environmentally friendly	Man	61	158,69	9680,00
	Woman	284	176,07	50005,00
	Total	345		
Not affordable - Affordable	Man	61	126,11	7693,00
	Woman	284	183,07	51992,00
	Total	345		
Non-nutritious - Nutritious	Man	61	121,42	7406,50

	Woman	284	184,08	52278,50
	Total	345		

Test Statistics[a]

	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
Unhealthy - Healthy	5919,00	7810,00	-4,033	,000
Unethical - Ethical	8226,50	10117,50	-,642	,521
Environmentally unfriendly - Environmentally friendly	7789,00	9680,00	-1,281	,200
Not affordable - Affordable	5802,00	7693,00	-4,178	,000
Non-nutritious - Nutritious	5515,50	7406,50	-4,640	,000

a. Grouping Variable: Gender

Hypothesis 6:

Table 12: Gender differences regarding beliefs about the environmental impact on meat production

Tests of Normality

		Kolmogorov-Smirnoff			Shapiro-Wilk		
Gender		Statistic	df	Sig.	Statistic	df	Sig.
Meat production is bad for the environment	Man	,250	61	,000	,849	61	,000
	Woman	,302	284	,000	,763	284	,000

Ranks

Gender		N	Mean Rank	Sum of Ranks
Meat production is bad for the environment	Man	61	126,11	7693,00
	Woman	284	183,07	51992,00
	Total	345		

Test Statistics[a]

	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
Meat production is bad for the environment	5802,00	7693,00	-4,330	,000

Hypothesis 7:

Table 13: Consumer willingness to pay more for products that respect animal welfare

Binominal test

		Category	N	Observed proportion	Test proportion	P-value
Would you be willing to pay more for products that respect animal wefare?	Group 1	I am willing to pay more	264	,88	,50	,000
	Group 2	I am not willing to pay more	37	,12		
	Total		301	1,00		