

**FROM HESITATION TO ACTION: COMMUNICATING TO  
OVERCOME BARRIERS AND MOTIVATE VEGETARIAN  
CHOICES AT SEMMA**

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JYVÄSKYLÄN YLIOPISTO

## ABSTRACT

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| Abstract<br><p>This thesis investigates the disconnect between positive attitudes towards vegetarianism and the actual dietary choices among consumers at Semma, a network of university campus restaurants. The study is set against the backdrop of growing environmental and health awareness that positions vegetarian diets as sustainable alternatives to meat consumption as well as Semma's urge to decrease its carbon footprint.</p> <p>Utilizing qualitative research methods, specifically semi-structured interviews with Semma's customers, the thesis studies the motivations and barriers influencing vegetarian food choices. The findings highlight an attitude-behaviour gap where despite recognizing the benefits of vegetarian diets, consumers often opt for non-vegetarian options due to taste preferences, dietary habits, and a perceived lack of fulfilling vegetarian alternatives.</p> <p>The research further explores how communication strategies employed by Semma could bridge this gap by effectively addressing these barriers and enhancing the appeal of vegetarian options. Recommendations are provided for Semma to refine their communication approaches to emphasize the personal and environmental benefits of vegetarian choices, thereby fostering a more sustainable eating culture.</p> <p>This thesis contributes to the broader discourse on sustainable consumer behaviour, offering insights that could assist food service providers in promoting environmentally friendly eating habits through strategic communication.</p> |                                 |
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| <p>Tämä pro gradu -tutkielma tarkastelee kuluttajien kasvissyöntiin liittyvien myönteisten asenteiden ja todellisten ruokavalintojen välistä yhteyttä Jyväskylän yliopiston Semma-kampusravintoloissa. Tutkimus nojaa sekä kasvavaan ympäristö- ja terveystietoisuuteen, joka asettaa kasvisruokavaliot kestäviksi vaihtoehtoiksi lihankulutukselle, että Semman pyrkimykseen pienentää hiilijalanjälkeään.</p> <p>Tutkimus on luonteeltaan laadullinen ja sen tarkoituksena on selvittää Semman asiakkaiden puolistrukturoitujen haastatteluiden pohjalta niitä motiiveja ja esteitä, jotka vaikuttavat kasvisruokavalintoihin. Tutkimustulokset korostavat kasvisruokavalintoihin liittyvien asenteiden ja käyttäytymisen välistä kuilua: vaikka kuluttajat ovat tietoisia kasvisruokavalion hyödyistä, he silti valitsevat usein muun kuin kasvisvaihtoehdon makumieltymystensä, ruokailutottumustensa tai tyydyttävien kasvisvaihtoehtojen puutteellisuuden vuoksi.</p> <p>Lisäksi tutkimus pyrkii selvittämään, miten Semma voisi kehittää viestintästrategiaansa havaitun kuilun kaventamiseksi puuttamalla tehokkaasti esiin nousseisiin esteisiin ja lisäämällä kasvisvaihtoehtojen houkuttelevuutta. Tutkimustulokset tarjoavat Semmalle suosituksia viestintänsä kehittämiseksi, jotta kasvisruokavalintojen henkilökohtaisia ja ympäristöhyötyjä voitaisiin korostaa ja siten edistää kestävämpää ruokakulttuuria.</p> <p>Tämä tutkielma edistää laajempaa keskustelua kestävästä kuluttajakäyttäytymisestä tarjoamalla näkökulmia, jotka voivat auttaa ruokapalvelujen tarjoajia edistämään ympäristöystävällisiä ruokailutottumuksia strategisen viestinnän keinoin.</p> |                                   |
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# 1 INTRODUCTION

Vegetarianism, the practice of abstaining from the consumption of meat, has been linked to numerous environmental and health benefits. The environmental benefits of adopting a vegetarian diet include a significant reduction in one's carbon footprint. By choosing plant-based options, consumers can contribute to mitigating climate change, preserving ecosystems, and promoting sustainable food systems. (Lawrence & McNaughton, 2019; Hargreaves, Raposo, Saraiva & Zandonadi, 2021.) Acknowledging these essential aspects of vegetarianism and its environmental impacts in this thesis will not only ground the research in critical environmental discourse but also reinforce the importance of Semma's initiative to promote vegetarian options for decreasing the carbon footprint and a more sustainable future.

When it comes to altered diets, for example, reduced meat consumption, Hunter & Rööös (2016) find in their study that participants do not always find reduction of meat consumption to be simple nor believe it to be effective. They further note that as the idea of climate and food being linked is relatively new, consumers are having a hard time believing the connection and tend to underestimate the impact.

Generally, those who see climate change as a severe, probable, and influential issue are more likely to see climate-friendly food options as morally right actions (Mäkinieniemi & Vainio, 2013). Moreover, the findings suggest that those who experience climate change as personally non-threatening and irrelevant do not engage that much in climate change mitigating actions. Mäkinieniemi & Vainio (2013) further found out that social agreement on climate change between the public and scientists as well as between different groups of people, such as political groups vary greatly. Therefore, social consensus did not affect the decision-making process directly.

Sustainability interventions are different from other traditional consumer interventions: to achieve sustainability much bigger change of behaviour is needed whereas in other interventions only an individual's action may make a difference (Gonzalez-Arcos, et al., 2021). Also, if one tries to change individual behaviour rather than social practices, he or she is more likely to face resistance.

One must note that Semma's customers differ from traditional consumers who should be reducing the amount of meat consumption while choosing vegetarian options more frequently. In Semma's restaurants, there is always at least one vegetarian option available, and it does not require any additional knowledge, money or effort from the consumers to select that option instead of meat. However, very few people do so. Approximately, 25% of meals sold at Semma restaurants are vegetarian. (Sallinen, 2023). There are, therefore, huge barriers that prevent consumers from choosing the alternative that would eventually influence Semma's carbon footprint the most. These barriers could be, for example, taste, unfamiliarity, amount of protein or looks. The motivators, how-

ever, could be taste, healthiness or environmental awareness. These questions will be addressed in this thesis.

## 1.1 Semma

This thesis is written in collaboration with Semma, a company that operates restaurants, cafés, and a bakery in Jyväskylä. Most of these are located at the campus area but also in the city library and student village Kortepohja. Altogether Semma has 14 locations, 70 employees and 1 000 000 eaten lunches each year. (Semma, 2022.) As one may guess, the average customer in a Semma restaurant is a student due to the convenient locations of the restaurants as well the student discount offered in the lunch prices.

In 2020, Elli Latva-Hakuni studied Semma restaurants in her Master's Thesis "The carbon footprint of student and workplace canteens: case Semma Oy". In her study, Latva-Hakuni focused on the environmental impacts of restaurants and calculated the carbon footprint of Semma. She further created scenarios by which Semma could reduce its carbon footprint by 30, 50 and 65 per cents. The outcome of the thesis was that water usage, commuting, waste management, services and acquisitions account for a relatively small part of Semma's carbon footprint. However, the greatest reduction in the carbon footprint can be reached by food procurements, especially by favouring vegetarian options. (Latva-Hakuni, 2020.)

This thesis will, therefore, be a continuation of Latva-Hakuni's thesis. As vegetarian food has been identified as the most effective way to reduce a restaurant's carbon footprint, this study will be focusing on how Semma could increase the amount of vegetarian food sold in Semma restaurants while decreasing meat-options consumption. Semma offers vegetarian options in each of its restaurants every day. This is not only the wish of Semma but also a recommendation of The Social Insurance Institution (SII, in Finnish KELA) and the National Nutrition Council. These organizations issued many recommendations for student meals and their sustainability in 2021. According to them, for instance, the vegetarian options should be placed at the beginning of the counter, the lists should be organised so that the most sustainable option is presented first and that students are informed the sustainability factors clearly and informatively. (Finnish Food Authority & SII, 2021.)

As Semma offers vegetarian food daily, one needs the assistance of the customers for increasing the amount of vegetarian food chosen. By having customers choose more vegetarian food, Semma can offer more environmentally friendly options and lessen those more harmful meat alternatives. Therefore, this thesis will concentrate on consumer behaviour and behaviour change. However, the emphasis of this thesis lies in the role of communication in motivating consumers and lowering the barriers to choose vegetarian alternatives. It



will focus on what type of marketing and communication Semma should use so that it would influence Semma's consumers' behaviour.

## **1.2 The aim and structure of the thesis**

The goal of this study is to explore motivators and barriers that affect consumer behaviour regarding choosing vegetarian food in university campus restaurants. Furthermore, to understand how Semma, the campus restaurants, can encourage the desirable behaviour through communication. The aim is to provide theory around consumer behaviour and consumer motivation in the context of sustainable food consumption. There are two research questions:

**RQ 1:** What are the motivations for Semma's consumers to choose vegetarian food and what restraints them from doing so?

**RQ 2:** How can communication encourage Semma's consumers' motivation to select vegetarian food?

## 2 VEGETARIANISM

The history of vegetarianism spans thousands of years and is intertwined with various cultural, religious, and philosophical movements. Its origins can be traced back to ancient civilizations like Egypt and India, where abstaining from meat was often associated with religious beliefs. Throughout the ages, influential figures like Pythagoras and later philosophers and thinkers in Ancient Greece and Rome contributed to its spread, linking it to health, ethical, and spiritual considerations. (Hargreaves, et al., 2021.)

In more recent centuries, the rise of Darwinism and the founding of vegetarian societies in the 19th century revitalized the movement, challenging the view of human superiority over animals. The 20th century saw a further increase in vegetarianism, influenced by health studies and environmental concerns. Today, vegetarianism is recognized not just for its dietary exclusions but as a lifestyle choice reflecting personal ethics, environmental stewardship, and health consciousness. (Hargreaves, et al., 2021.)

There are several different variations of vegetarianism and all of them can be customized based on individual preferences and dietary needs. In this thesis, when talked about a vegetarian diet or vegetarianism, one means a way of eating that primarily focuses on plant-based foods while excluding meat and seafood. Vegetarians may or may not consume dairy products and eggs, depending on their specific dietary preferences. (Lawrence & McNaughton, 2019; Hargreaves, et al., 2021.) However, there are several different definitions of diets that can be considered a part of vegetarianism. Lacto-ovo vegetarians include dairy products and eggs in their diet while lactovegetarians consume dairy products but avoid eggs. Ovo-vegetarians, on the other hand, eat eggs but avoid dairy products. The total absence of animal products from one's diet, including meat, dairy, eggs, and even honey, is called veganism. (Appleby & Timothy, 2015).

In addition, pescovegetarianism is a diet that primarily includes plant-based foods but also includes fish and other seafood. Pescovegetarians avoid meat, poultry, and other animal-derived products such as meat-based preparations and broths. However, they include fish and seafood in their diet. Pescopolotarianism, on the other hand, refers to a diet that excludes red meat (beef, pork, and lamb) but includes poultry, fish, and eggs along with plant-based foods. Also, flexitarianism can be considered a relatively new form of vegetarianism, where individuals prioritize a plant-based diet and may have vegetarian days, but it is not a strict vegetarian diet. (Appleby & Timothy 2015; Hargreaves, et al., 2021.)

The adoption of a vegetarian diet is often motivated by various factors, such as cultural or religious values, ethical beliefs, environmental concerns, and health considerations. (Lawrence & McNaughton, 2019; Hargreaves, et al., 2021.)

The practice of following a vegetarian diet, known as vegetarianism, varies considerably across different regions of the world, and it is not equally prevalent throughout the world. In India, almost 40% of the population adheres to a vegetarian diet, making it the country with the highest proportion of vegetarians. However, in other countries, vegetarianism is significantly less common, with less than 10% of the population following a vegetarian diet. In the United States, it has been estimated that 5% of the population are vegetarians, and 2% are vegans. (Appleby & Timothy, 2015.) In Europe, approximately 5% of population are vegetarians. (Hargreaves, et al., 2021.) In Finland, the same can be noted: approximately 7 % of the Finns are vegetarians or vegans (Kantar TNS Agri Oy, 2021).

As the statistics show, vegetarians are in the minority worldwide. However, there are several benefits that vegetarian diets have over the traditional, meat-centred diets many Western countries have grown accustomed to.

## **2.1 Environmental factors**

Food consumption is a natural part of human life and food is being consumed in all parts of the world, in all economic circumstances. It is needless to say that agriculture altogether is needed. However, meat production is a cause for a great number of environmental issues.

### **2.1.1 Greenhouse emissions**

Approximately 26% of global greenhouse gas (GHG) emissions can be attributed to food production and consumption. However, it is also true that agriculture is one of the most polluting industries overall. The industry of agriculture, forestry, and land use counts for 18,4% of all greenhouse gas emissions globally. However, livestock and manure contribute to 5.8% of that greenhouse gas emissions. Ruminant animals, such as cattle and sheep, produce methane through enteric fermentation, a process in which microbes in their digestive systems break down food. As a result, beef and lamb have a high carbon footprint. (Ritchie, Roser & Rosado, 2020.)

Hargreaves, Raposo, Saraiva, and Zandonadi (2021), on the other hand, state that the process of producing food that comes from animals is highly inefficient when it comes to energy usage, as it necessitates the consumption of numerous resources such as water, energy, land, and food in order to maintain the animals' well-being. A significant portion of the energy and nutrients from the animals' food are utilized to sustain their metabolism, with only a small fraction converted into food for humans as meat. In fact, as Rööös, Sundberg, Tidåker, Strid & Hansson (2013) mention, inefficiency of animals in converting

feed to meat means that 75–90% of their consumed energy is used for body maintenance or lost in manure and by-products such as skin and bones.

In Finland, in the year 2020, agricultural emissions held steady at 6.6 million tons of CO<sub>2</sub> equivalent, with preliminary data indicating a marginal decrease of less than half a percent compared to the previous year. Reduced soil emissions were linked to lower crop residue, stemming from a decreased yield and subsequently lower nitrogen entering the soil. The ongoing reduction in livestock numbers continued to contribute to lower emissions from animal digestion and manure management. (Statistic Finland, 2021.)

According to Statistic Finland (2021) compared to 1990, agricultural emissions have seen a notable 12 percent reduction, primarily attributed to a significant decline in synthetic fertilizer usage. Changes in the agricultural landscape, including fewer farms, larger farm sizes, and reduced livestock numbers, have further influenced emission reduction. Despite positive trends, the expansion of cultivated peatland areas has contributed to increased nitrous oxide emissions. Nonetheless, the decline in emissions from liming has played a role in the overall decreasing emission trend in the agricultural sector since 1990.

The statistics of SYKE (2023a), however, paints a slightly different picture. Agriculture in Finland is indeed the only sector that has not reduced its GHG emissions significantly. In 2005, according to SYKE, the emissions were 6377 kg CO<sub>2</sub> eq compared to 2021's 6374 kg CO<sub>2</sub> eq. Only when compared the percentual GHG emission amount per person, one can state that there has been a decrease of 5,3 percent.

Greenhouse gas emissions vary greatly depending on the product in question. Nijdam, Rood and Westhoek (2012) compared the GHG emissions from different protein sources and concluded that animal-origin products clearly have a higher impact on both climate and land use. The highest impact comes from ruminant meat. Pork, on the hand, has an intermediate impact. Vegetal products, certain seafood, and poultry products have a rather small GHG impact on land and climate.

Nijdam et al. (2012) further calculated the CO<sub>2</sub>eq per kilogram of protein which shows similar results, with beef being the most harmful to the climate. However, meat from dairy cows has surprisingly small CO<sub>2</sub>eq per kilogram of protein due to the efficient co-production of meat and milk. In Finland, most of the meat comes from dairy cows and their male offspring which allocates some of the emission burden on the milk production (Virkajärvi & Järvenranta, 2018). However, vegetal protein has clearly the best ratio between protein and CO<sub>2</sub>eq (Nijdam et al., 2012).

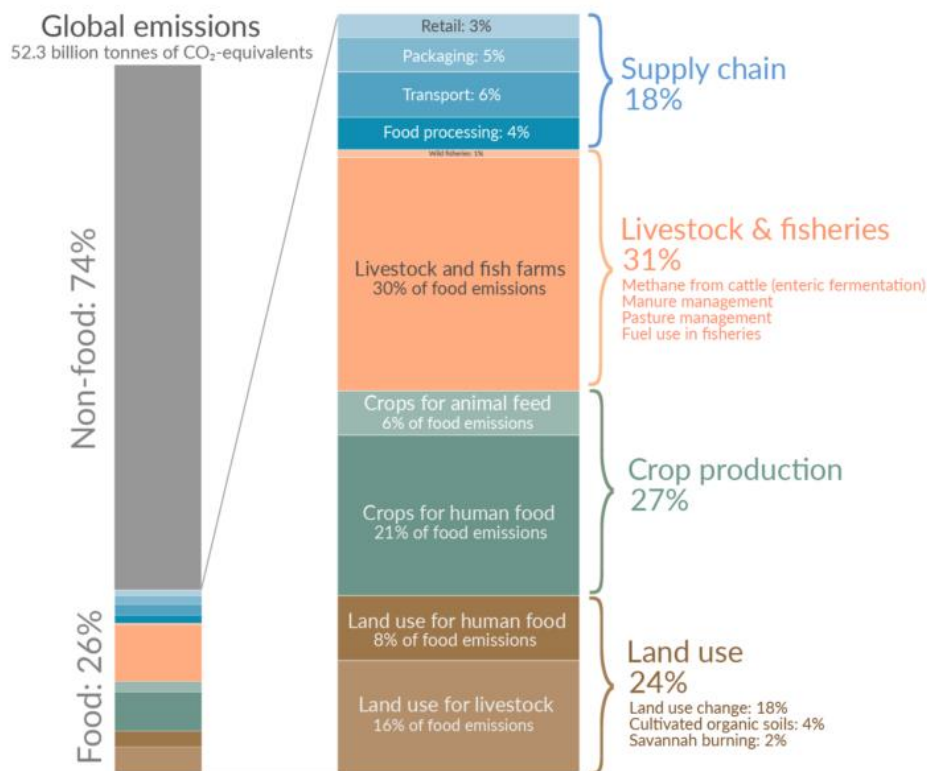
The amount of energy lost during production, which is standardized by the rate of energy conversion into protein, varies greatly between different animals. For instance, 4 calories from fossil fuels are needed for each calorie of chicken protein produced, whereas 40 calories are needed for the production of 1 calorie of beef protein. In the case of pork and dairy production, the rate is 14 fuel calories for each calorie of protein, while for eggs, the figure is comparable to that of beef (39 calories). On average, the energy required to produce each

gram of animal protein (25 kcal/g) is 11 times greater than that needed to produce vegetable proteins (2.2 kcal/g). (Hargreaves, et al., 2021.)

Eating habits have, therefore, a huge effect on the environment. Changing one's eating towards more plant-based is an environmental act. Recently, consumers have become more aware of their food choices and pay more attention to factors such as locality, organic and environmental sustainability. As a matter of fact, for several years, New Nutrition Business has placed sustainability in its yearly list of ten global food trends. As for the year 2023, sustainability is listed as the fifth megatrend. (New Nutrition Business, 2022.)

Also, the importance of sustainable diets has been highlighted by United Nations. In the 2020 published report, different healthy diets were compared on their GHG emissions and how the adoption of these diets would reduce projected diet-related GHG emissions in 2030. The findings show that by switching current food consumption patterns to pescatarian, GHG emissions would be cut in half from 8 to 4 GtCO<sub>2</sub>-eq. Moreover, by switching to a vegan diet, the emissions from food would be reduced to a quarter, from 8 to 2 GtCO<sub>2</sub>-eq. (FAO, IFAD, UNICEF, WFP & WHO, 2020)

## Global greenhouse gas emissions from food production Our World in Data



Data source: Joseph Poore & Thomas Nemecek (2018). Reducing food's environmental impacts through producers and consumers. Published in Science. Licensed under CC-BY by the author Hannah Ritchie (Nov 2022).

Figure 1. Global greenhouse gas emissions from food production (Ritchie, 2019).

### 2.1.2 Land use

When considering the environmental footprint of the livestock, one must take into account also the other emissions sources that livestock accounts for. Land use covers 24% of food emissions from which livestock results in twice as many emissions (16%) as land use for crops intended for human consumption (8%). When agricultural expansion occurs, forests, grasslands, and other carbon sinks are converted into cropland or pasture, resulting in the release of carbon dioxide emissions.

The argument often heard against the reduction of the consumption of ruminant meat emphasises the ability grazers possess of convert grass to high quality human food. In rather intensive production systems, however, beef and dairy cattle are mostly fed with feed from arable land. There are also huge areas of extensive semi-natural grasslands in Europe that are only fit for grazing, but the production amounts from these areas are relatively small compared to total production of ruminant meat and dairy. (Nijdam, Rood & Westhoek, 2012.) In addition, as Ritchie (2019) states, the emissions generated by food production, 27% can be attributed to crop production. Within that 27%, 21% comes from crops produced for direct human consumption, while 6% is associated with the production of animal feed (see Figure 1). This is an astonishing amount as most of the crops could be directly used as human feed. Nijdam et al. (2012) calculated the land used for kg of protein as part of their study (see Table 1). The findings suggest that meat substitutes have the smallest land used whereas beef uses the most land per kg of protein.

| Product  | Land Use (m <sup>2</sup> per year per kg protein) |
|--|---|
| Beef (Industrial Systems)                          | 37 - 2100   |
| Beef (Meadow Systems Suckler Herds)                | 75 - 143  |
| Beef (Extensive Pastoral Systems)                  | 164 - 788   |
| Beef (Culled Dairy Cows)                           | 1430 - 2100                                       |
| Pork   | 37  |
| Poultry  | 40 - 75   |
| Eggs   | 23 - 40   |
| Mutton and Lamb                                    | 29 - 52   |
| Milk   | 100 - 165   |
| Cheese   | 26 - 54   |
| Seafood from Fisheries                             | 26 - 54   |
| Seafood from Aquaculture                           | 13 - 30   |
| Meat Substitutes (Containing Egg- or Milk Protein) | 8 - 17  |
| Meat Substitutes (100% Vegetal)                    | 4 - 25  |
| Pulses (Dry)                                       | 10 - 43   |

Table 1. The land use of different protein (m<sup>2</sup> per year per kg protein). (Nijdam, Rood and Westhoek, 2012).

### 2.1.3 Water use

In most parts of the world water is scarce. Therefore, the large amounts of freshwater used affect human health. The term "water footprint" refers to the consumption of freshwater, also known as blue water footprint, that is no longer returned to the system in a clean state. Green water represents rainwater and grey water, including wastewater. (Nikula, 2012).

The production of beef and milk requires a significant amount of green water, and depending on the region, it may also involve blue water, such as irrigation water used for feed production. Indeed, livestock sector, accounting for 8% of global water usage, significantly influences Sustainable Development Goal #6, focusing on clean water and sanitation. The production of animal-based products, particularly beef, which has a higher water footprint compared to poultry and pork, is responsible for nearly a third of agriculture's total water footprint globally. (Lal, 2020.)

In Finland, there is an abundant supply of fresh water available for domestic use and production, so the water footprint of Finnish products is generally not a problem. However, conserving water in meat or dairy production in Finland does not necessarily improve the global water balance. On the other hand, even Finnish consumers contribute to the depletion of water resources in other regions, including those with limited water availability, through the consumption of imported meat, feed, and other imported products. (Nikula, 2012).

The biggest issue regarding water and agriculture in Finland is eutrophication which occurs as the fertilizers, mostly phosphorus and nitrogen, end up in the local water sources. In grassland farming, fertilizers are often spread on the soil surface or in the topsoil layer, where their soluble nutrients are susceptible to leaching. (Nikula, 2012). Also, animal agriculture contaminates surface water, groundwater, and soils by the dispersion of nutrients, organic substances, and heavy metals (Machovina, Feeley and Ripple, 2015).

Precipitation exceeds evaporation in Finnish soils, and plant growth can only utilize nutrients during a short growing season. Winter climate conditions further increase the risk of leaching soluble nutrients, leading to eutrophication of water bodies even with relatively low nutrient loads. The eutrophication issues in water bodies are primarily localized and occur near the pollution source. In inland Finnish lakes, 99-97% are phosphorus-limited, while in coastal areas, the corresponding number is around 90%. In inland Finland, water bodies form chains of interconnected lakes, where lake basins are linked either directly or through short river channels which increases the risk of larger areas being eutrophicated. (SYKE, 2023b).

### **2.1.4 Biodiversity**

Meat production significantly impacts biodiversity due to various factors such as deforestation for grazing and feed production, overgrazing, and the degradation of grasslands. Studies have linked a third of biodiversity loss directly to livestock production. This loss is exacerbated by the expansion of monoculture crops for animal feed, which leads to habitat destruction and decreased species diversity. The mainstream grazing practices can destroy native vegetation, damage soil and stream banks, and contaminate waterways, further contributing to biodiversity loss. (Rainforest Action Network, 2015.)

Machovina et al. (2015) highlight the role of meat production as a driver of habitat loss, particularly in biodiverse tropical regions. They also discuss the role of meat production in climate change, which further affects biodiversity. They emphasise that the modern global agricultural system requires approximately 7.0 gigatons of plant biomass to produce 0.26 gigatons of meat, indicating that even minor increases in meat consumption can significantly impact habitat conversion and greenhouse gas emissions. They further suggest reintegrating livestock into diverse farming systems to enhance human nutrition, reduce agricultural land use, and conserve biodiversity.

## **2.2 Health factors**

Although vegetarianism is still in the minority in the global population, its health benefits are largely recognised. There is still room for more research, especially on the long-term health benefits following of a vegetarian diet causes but a fairly good understanding of its opportunities has been gathered in recent years.

### **2.2.1 Long-term**

Although the available data is limited, the current findings suggest that vegetarians generally enjoy good long-term health, and in some cases, may experience better health outcomes compared to similar non-vegetarians for certain conditions and diseases such as obesity and ischaemic heart disease. (Appleby & Timothy, 2015; McEvoy, Temple & Woodside, 2012.)

In general, vegetarians tend to have a lower BMI compared to non-vegetarians who are otherwise similar in characteristics, with the differences typically ranging from 1 to 2 kg/m<sup>2</sup> across all adult age groups. Among all vegetarian groups, vegans tend to have the lowest BMI. These findings are reflected in a lower prevalence of obesity among Western vegetarians, as well as lower weight gain during adulthood in both vegetarians and vegans. (Appleby & Timothy, 2015).



Appleby & Timothy (2015) further suggest that vegetarians may have a reduced risk of obesity-related diseases and conditions. They suggested that vegetarian and vegan diets may help with weight management. It is important to note, however, that the lower BMI in western vegetarians may not be applicable to non-western populations. For instance, a study of 7,000 participants in the Indian Migration Study found no difference in mean BMI between vegetarians and non-vegetarians, with 33% of the participants being vegetarians.

Obesity is a significant contributor to morbidity and mortality but in addition, high LDL cholesterol levels are connected to a higher risk of premature death. Generally, vegetarians have significantly lower cholesterol levels compared to omnivores (McEvoy et al., 2012). This is likely to be due to differences in fat intake: meat is a rich source of saturated fatty acids (Appleby & Timothy, 2015). Also, a study (Orlich, Singh, Sabaté, Jaceldo-Siegl, Fan, Knutsen, Beeson & Fraser, 2013) of more than 73,000 participants found that vegetarians had a 12 % lower risk of death from all causes compared to non-vegetarians.

While there may be slightly lower overall cancer rates among vegetarians, the available data are inconclusive for most individual cancers (Appleby & Timothy, 2015). It is, however, widely accepted that the absence of meat in one's diet may prevent certain cancers. In fact, McEvoy et al. (2012), note that although there was no notable contrast in the mortality rates of vegetarians and non-vegetarians in relation to prevalent types of cancer such as breast, colon, lung, prostate, and stomach cancers, the epidemiological evidence indicates that vegetarians have a lower incidence of cancer compared to non-vegetarians.

Additionally, vegetarians generally have a lower risk of developing diabetes, diverticular disease, eye cataract, degenerative arthritis, hyperthyroidism, and the metabolic syndrome, but more research is needed to confirm these findings (Appleby & Timothy, 2015).

On the other hand, following a vegetarian diet has also its downsides. Stroke mortality rates do not appear to differ between vegetarians and non-vegetarians. Lawrence and McNaughton (2019) even argue that a vegetarian diet might even expose people to a higher risk of stroke, but it still requires further research. They also highlight the risks associated with the fact many foods marketed to vegetarians are indeed highly processed. Processed food typically contains high amounts of salt, sugar, unhealthy fats, and artificial additives which could, in the long run, affect one's health. Bone health is also one factor to be addressed when talking of the potential negative effects of vegetarianism. Vegetarians and vegans have generally lower bone mineral density than omnivores, and vegans also have higher fracture rate. (Hargreaves, et al., 2021.)

Relying heavily on a single food or food group is inadequate in terms of providing the necessary nutrients for optimal health and well-being. Therefore, it is essential to follow versatile eating habits regardless of the diet. Vegetarians might, otherwise, suffer from a deficiency of Fe, vitamin D, vitamin B12 and n-3 fatty acids which are often found in animal-based foods. (McEvoy et al. (2012.) It may be complex for consumers to understand the nutrient implications of substituting products of animal-based food (Nolden & Forde, 2023).

### **2.2.2 Short-term**

Vegetarian diets can provide all the necessary nutrients for maintaining good energy levels. In fact, some research suggests that vegetarian diets may even be associated with higher energy levels than diets that include meat. Plant-based diets are typically higher in fibre, which can help regulate blood sugar levels and prevent energy crashes. Fiber slows down the absorption of sugar into the bloodstream, providing a more sustained source of energy throughout the day. (Hargreaves, et al., 2021.)

Vegetarian diets are often rich in complex carbohydrates, such as whole grains, legumes, and vegetables, which are a good source of energy. Complex carbohydrates take longer to break down in the body, providing a more sustained release of energy. Also, vegetarian food is typically lower in saturated fat and higher in unsaturated fat than diets that include meat. Saturated fat can contribute to feelings of sluggishness, while unsaturated fat can provide sustained energy. In addition, vegetarian food can also be rich in certain vitamins and minerals that are important for energy production, such as B vitamins, iron, and magnesium. (Hargreaves, et al., 2021.)

Following a vegetarian diet might also be beneficial to gut's health. Vegetarian diets are associated with higher levels of beneficial gut bacteria, including *Bifidobacterium* and *Lactobacillus*, which are known to have a positive impact on gut health. (Zhu, Lin, Xhao, Shi, Li, Li, Xhu, Xu, Li, Zhou, 2015). Also, Singh, Chang, Yan, Lee, Ucmak, Wong, Abrouk, Farahnik, Nakamura, Zhu, Bhutani & Liao (2017) found out that a vegetarian diet can increase microbial diversity in the gut, which is associated with better overall health outcomes and, for example, with healthy metabolic states which again helps with weight control. They also argue that vegetarian diets can have a positive impact on gut health markers such as inflammation, intestinal permeability, and gut microbiota composition.

Although, vegetarianism is often criticised for its lack of protein, Hargreaves et al. (2021) informatively state that high protein intake can, in fact, result in the gut microbiota producing more inflammatory substances. Generally, the positive impact vegetarian food has on gut health is due to the diet's high fibre levels and nutrient intake from, for example fibre through fruit and vegetables, but it is essential to note that this may vary depending on one's overall dietary pattern and the types of plant-based foods consumed.

## **2.3 Socio-cultural factors**

In addition to environmental and health factors, also socio-cultural factors may affect one's diet. For example, the social domain may be adversely affected by the rejection and stigmatization that vegetarians may face from non-vegetarians, given that vegetarians remain a minority group. The desire to avoid stigmatiza-

tion or exclusion from one's social group may pose a barrier to someone's intention of adopting a vegetarian diet. (Hargreaves, et al., 2021).

Furthermore, cultural factors that promote meat consumption, as well as the association between meat and masculinity, could have a similar impact. Indeed, Ruby, Alvarenga, Rozin, Kirby, Richer and Rutzstein (2016) state that gender and cultural background significantly impact people's preferences and perceptions of vegetarianism. For instance, men generally enjoy meat-eating more. Especially red meat is considered to symbolize power, strength, and human dominance over nature via its visible blood content and associations with hunting – all factors often connected with manhood. They further studied the preferences and attitudes towards vegetarians with the conclusion that social and cultural influences play crucial roles. In their study, for example, French consumers shunned from vegetarianism more and had a negative view of vegetarians while Americans and Brazilians had a more neutral-positive attitude towards vegetarians.

The psychological factors that may lead someone to adopt a vegetarian diet include ethical and moral beliefs, as well as religious and spiritual convictions. Furthermore, seeking social inclusion and a sense of belonging to a particular group can also be a driving force behind someone's decision to become vegetarian. (Hargreaves, et al., 2021). Hunter and Rööös (2016) interestingly found in their study that seriousness and risks associated with climate change strongly predicts intentions to reduce or substitute meat consumption and that the influence is stronger when the perceived threat is directed towards others, such as individuals in impoverished countries or animals, rather than oneself or those nearby.

Vaskelainen, Siltaoja and Hoskonen (2022) studied the so-called “hype” in the Finnish vegetarian meat substitute market. They found out that regardless of the actual taste of the product, the general hype, created by the media, of one product on the market, has a positive spillover on the whole consumption of meat substitutes. Therefore, socio-cultural contexts truly shape consumer preferences and market categories for sustainable products, especially among groceries. Following a vegetarian diet can, somewhat, be connected to seasonal trends and themes as well as media and human influences.

### 3 SUSTAINABLE CONSUMER BEHAVIOUR

We make choices daily, consciously, and unconsciously. Schiffman and Wisenblit (2015) define consumer behaviour as “the study of consumers’ actions during searching for, purchasing, using, evaluating, and disposing of products and services that they expect will satisfy their needs”. Nowadays researchers recognise, unlike before, consumer behaviour as an ongoing process that expands wider than merely the moment when the purchase itself is made (Solomon, Bamossy, Askegaard and Hogg, 2016).

Sustainable consumer behaviour refers to the choices and actions taken by individuals that are considerate of environmental sustainability, aiming to minimize negative impacts on the environment through conscious consumption patterns. This includes practices that support the preservation of natural resources, reduction of waste and pollution, and promotion of products and practices that are environmentally friendly. (White & Simpson, 2013).

#### 3.1 Role of emotions

Emotions play a crucial role in decision-making, including the decision to purchase carbon-friendly food. Therefore, emotions are a significant psychological factor that determines consumer behaviour in this context. Indeed, Penz and Hofmann (2021) found out that carbon-friendly food can produce both positive and negative emotions. By using picture material, consumers reported feeling positive emotions such as joy, which was related to the variety and quality of fresh products available. On the other hand, the main negative emotion discussed was sadness, including guilt or shame, which was felt in relation to the environmental consequences of industries' or consumers' behaviours. The same was confirmed by Leviston and Uren (2020) who state that only those consumers who overestimate their own pro-environmental behaviour, feel less shame compared to those who have more realistic understanding of one’s own behaviour.

One emotion highlighted by Hargreaves et al. (2021) was disgust. This feeling is more often relevant to females towards red meat and can explain why generally females are more often vegetarians compared to their male companions.

The range of emotions and their causes highlights the importance of identifying them. The way food is produced and handled can generate both positive and negative emotions, and consumer control over their diet and food

choice leads to positive emotions. Additionally, businesses can evoke consumers' emotions, which can influence their purchasing decisions. (Penz & Hofmann, 2021.)

On the other hand, the results of a study by Antonetti and Maklan (2014) suggest that when faced with ethical dilemmas regarding sustainability, individuals felt both guilt and pride, even when the purchase was portrayed as being out of their control. Although describing the purchase as intentional may have heightened their emotional response, it does not seem to have been a crucial factor in their assessment. They further state that the presence of both guilt and pride were important factors in predicting whether consumers would purchase sustainable products in the future. Indeed, when consumers have a particular emotional experience related to a purchase, it can serve as a valuable learning opportunity that may affect their decision-making in future purchases.

### **3.2 Consumer motivation**

According to the findings of Gonzalez-Arcos, Joubert, Scaraboto, Guesalaga & Sandberg (2021) consumer resistance to sustainability interventions does not primarily stem from consumers being unwilling to change their individual behaviour. They argue that, instead, consumer resistance arises because the targeted individual behaviours are embedded in dynamic social practices. When sustainability interventions aim to change individual behaviours rather than social practices, it places excessive responsibility on consumers, disturbs their emotions related to their practices, and destabilizes the various practices that interconnect to shape their lives, ultimately resulting in resistance.

Gonzalez-Arcos, et al. (2021) suggest that one could motivate consumers or instance, by offering limited-time discounts on eco-friendly options. In case this incentive is not financially feasible, companies could explore other options to encourage adoption. This idea is strongly supported by Mäkinemi & Vainio (2013) who state that environmental taxation is a good way to promote pro-environmental behaviour in food consumption. In addition, they encourage food suppliers and food marketers to focus on increasing the availability and labelling of climate-friendly products.

Nolden and Forde (2023) mention an idea called 'hybrid' products. This increasingly popular approach involves the use of blended or hybrid products that aim to lower meat consumption by replacing some of the animal protein with plant-based proteins. In the future, these hybrid products may provide a viable solution by reducing but not eliminating all animal ingredients from the end product, thereby reducing the environmental impact associated with animal-based food products while maintaining optimal nutrient content and lower the barriers of consumers selecting less harmful option.

### 3.3 Attitude-behaviour gap

While there is a growing public interest in sustainability and consumers generally have positive attitudes towards it, their actual behaviours do not always align with their attitudes in a consistent manner. In research, this is known as the attitude-behaviour gap, or as value-action gap. In other words, attitude-behaviour gap occurs, when people say one thing but do not act accordingly. The question why such gap often exists, and it could be minimized is complicated. (Kollmuss and Agyeman, 2002.) First, the barriers to preventing the wished behaviour must be understood.

Blake (1999) explains that normally, pro-environmental behaviour models have limitations as they do not consider the individual, social, and institutional constraints that may affect people's ability to act in an environmentally conscious way. Additionally, these models assume that humans always act rationally and make systematic use of available information, which may not always be the case. He further identifies three obstacles to action: individuality, responsibility, and practicality.

Firstly, the 'individuality barrier' is significant for individuals whose environmental attitudes are not central to their overall attitude structure. In some cases, people's concern for the environment is outweighed by conflicting attitudes, and they may feel lazy or uninterested in prioritizing environmental actions. Additionally, some people may see themselves as the wrong type of person to engage in certain environmental behaviour. White and Simpson (2013) also highlight the individual challenges consumers are often perceived personal costs such as time, effort, behavioural change associated with sustainable actions.

Secondly, Blake (1999) describes the second barrier 'individually' concerning those who do not engage in pro-environmental actions might believe that they cannot influence the situation or should not be held responsible for it. He further notes that in the specific community being described, a lack of trust in institutions often hinders pro-environmental action, as people may be sceptical of local and national governments and less willing to follow prescribed actions. The same is emphasised by Mäkinemi & Vainio (2013) as they suggest that the perception of climate change as personally nonthreatening or irrelevant is an obstacle to taking actions to mitigate climate change.

Lastly, with the 'practicality barrier' Blake (1999) refers to the social and institutional factors that prevent individuals from engaging in pro-environmental actions, even if they have the intention or desire to do so. Blake (1999) identifies some of these constraints as a lack of time, financial resources, and information.

Although Blake's (1999) ideas on attitude-behaviour gap create an excellent model taking into account both external and internal factors, he does not go deeper into the social factors that can hinder pro-environmental action, such as familial expectations and cultural norms. Also, he does not consider the psychological factors any further, such as the reasons behind not having enough time to engage in pro-environmental behaviour. (Kollmuss & Agyeman, 2002.)

Kollmuss and Agyeman (2002), however, propose an alternative model. In their model, see figure 2, they have drawn inspiration from various authors. However, they wisely acknowledge that creating a model encompassing all the factors contributing to pro-environmental behaviour may not be practical or beneficial as it has its advantages and limitations and never tells the whole truth. Nevertheless, their model recognises the most essential factors and barriers both externally and internally in reaching the pro-environmental behaviour.

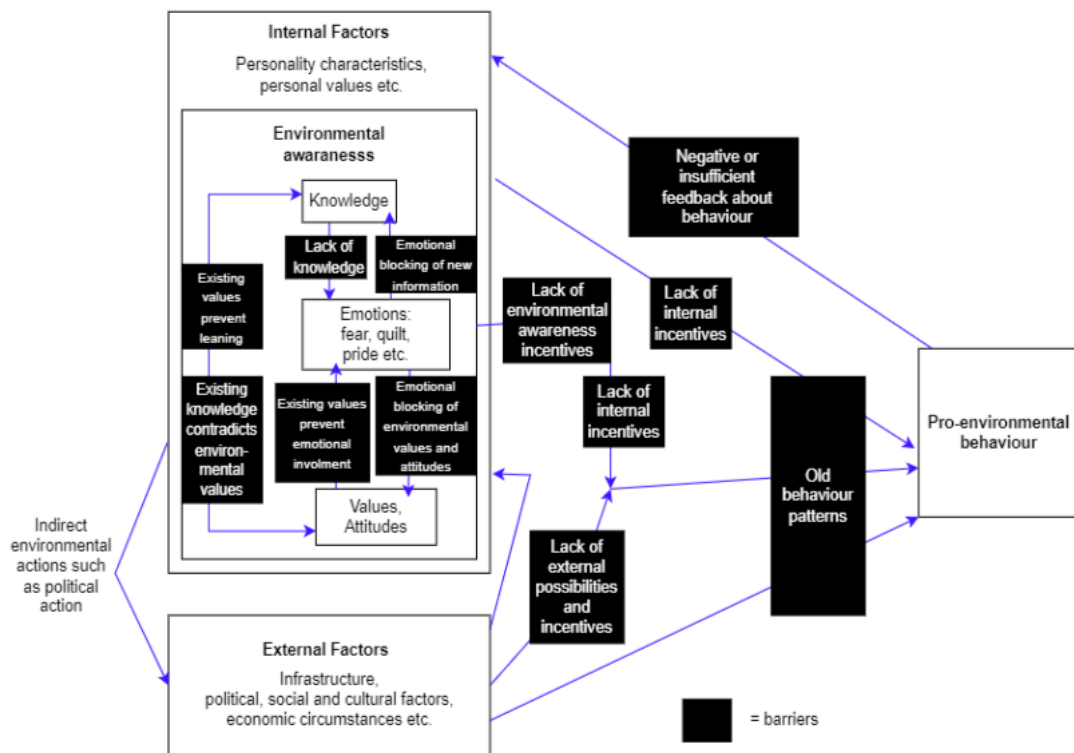


Figure 2. Model of pro-environmental behaviour adjusted from Kollmuss & Agyeman's model 2002.

## 4 COMMUNICATION

Communication stands at the core of influencing consumer behaviour, especially in the realm of food choices. Communication in the context of consumer behaviour and marketing can be defined as the process by which information is exchanged or shared between individuals through a common system of symbols, signs, or behaviours. It encompasses a wide range of activities, including speaking, writing, listening, and non-verbal cues, aimed at conveying messages to influence or persuade individuals or groups (Kotler & Keller, 2015). Effective communication involves not only the transmission of information but also the reception and proper interpretation of the message by the audience (Lasswell, 1948).

As highlighted by Vermeir and Verbeke (2006), effective communication can significantly impact key determinants such as involvement, perceived availability, and consumer effectiveness. This chapter delves into the multifaceted role of communication in breaking down barriers and fostering a motivational environment for the adoption of vegetarian food choices, particularly within the context of Semma restaurants.

### 4.1 Communication for greener consumer behaviour

Correia, Sousa, Viseu and Larguinho (2023) identifies a significant correlation between consumers' attention to green marketing communication and their green purchasing decisions. They highlight that sustainable marketing communication can positively influence consumer behaviour towards environmentally friendly products. In fact, in their exploration on consumer characteristics such as gender, education, and green attitudes, they found that individuals with higher educational levels, stronger green attitudes, and females are more attentive to sustainable marketing communication. This implies that while sustainable marketing can be an effective tool for engaging consumers already concerned about environmental issues, greater effort may be required to influence those with less pronounced environmental concerns.

They further suggest that companies can benefit from integrating green marketing strategies to promote environmental sustainability. By effectively communicating their commitment to environmental responsibility, companies can not only enhance their reputation and legitimacy but also influence consumer purchasing behaviour towards wished sustainable items.

White and Simpson (2013) studied how consumers could be motivated to engage by communication that appeals to utilize *injunctive appeals* that is emphasizing what others think one should do, *descriptive appeals* that is emphasizing what others are doing, and *benefit appeals* that is emphasizing the benefits of the action itself. The effectiveness of appeals in promoting sustainable behav-



aviours depends on whether the individual or collective self is activated. Activating the collective level of self is most effective with *injunctive* and *descriptive appeals*, while *benefit appeals* are less effective. Indeed, activating the individual level of self is most effective with self-benefit and descriptive appeals. The benefits of descriptive appeals for the individual self are related to the information they provide.

Leviston and Uren (2020), on the other hand, found in their study that the individuals targeted by broad campaigns based on *descriptive* norms are unaware that their behaviour falls below the actual norm, and the effectiveness of such campaigns may be reduced. This is because people who engage in self-enhancement are unlikely to recognize that they are doing so, and comparisons to those who exhibit worse behaviour may perpetuate disengagement due to misunderstandings about what the norm truly is. They further explain that increasing the visibility of pro-environmental behaviours is crucial to ensuring that individuals are exposed to accurate information about what others are doing in this regard.

One way to refocus consumers' sensemaking process is through effective communication that reminds them of the intervention's scope, distribution of responsibility, and specific benefits to them. While broader benefits for the "greater good" may not effectively refocus consumers, descriptions of the specific benefits for different groups may be more successful. By clearly communicating and reaffirming the boundaries surrounding the intervention and its benefits, one can reduce distractions and refocus consumers' sensemaking process. (Gonzalez-Arcos, et al., 2021.)

Gonzales-Acros, et al. (2021) further advise social marketers to craft sustainability initiatives with an emphasis on reshaping social practices as a whole, rather than merely aiming to alter individual behaviours. They state that this strategy necessitates the equitable distribution of responsibilities across all involved parties, acknowledging and addressing the emotional repercussions of such interventions, and meticulously overseeing the complex web of relationships among different social practices.

Nevertheless, Mäkinemi and Vainio (2013) list multiple factors, such as taste, health, price, or convenience that affect the consumers choices much more than ethical or environmental motives. Therefore, they suggest that the environmental and ethical motives are tied together with other factors which mean more to the consumers. In practice, emphasizing the health benefits of vegetarian food choices or the economic benefits of the local food are more effective than highlighting the environmental benefits alone. They further mention that the seriousness, consequences and proximity of climate change is still largely unrecognized even in countries such as Finland. Therefore, their suggestion is to highlight the fact that climate change is occurring close to the consumers and that it has already affected the food production in Northern Europe in the communication.

Penz and Hofmann (2021) do agree with Mäkinemi and Vainio (2013) on most parts, such that environmental aspects are only secondary, but they argue

that ethical concerns and personal health are the main motivators for vegetarian consumption. They further mention that the production of food, particularly meat, and the impact of food on consumers appear to be essential factors. They also recommend that informational campaigns use positive emotions to influence consumers' intentions to purchase environmentally friendly food. From a legal and regulatory standpoint, consumers' perceived behavioural control plays a significant role in their purchasing behaviour. Therefore, empowering consumers to make a difference and providing them with factual information in the form of labels or packaging about which products are truly carbon-friendly would increase the likelihood of their purchasing such products.

#### **4.1.1 Social norm approach**

Social marketing applies traditional marketing principles and techniques to promote behaviours that enhance the personal as well as society's welfare. Social marketing, particularly the social norm approach (SNA), can be used to influence consumer behaviour, particularly in health-related contexts. The social norm approach leverages the influence of perceived norms on individual behaviour. By communicating the prevalent behaviours of a group, SNA aims to normalize needed actions and operates on the premise that people's behaviour is influenced by their perceptions of what is normal within their community. This method has been successfully used various times, such as reducing alcohol consumption among university students and promoting environmental behaviours like recycling and energy conservation. (Burchell, Rettie, & Patel, 2013.)

Higgs, Liu, Collins, and Thomas (2019), on the other hand, focus on eating behaviours, illustrating how exposure to normative messages about healthy eating can significantly influence dietary choices in both laboratory and real-world settings. They found that providing information about the healthy eating habits of others can encourage individuals to choose more vegetables and healthier food options.

SNA involves into two types of norms. Descriptive norms what highlights what individuals perceive as the typical behaviours performed by others and injunctive norm which emphasises what individuals perceive as the behaviours that are approved or disapproved by their community. (Burchell, at al., 2013; Higgs et al., 2019.)

By implementing SNA into the marketing practices, one might receive positive results. Higgs et al. (2019) highlight that in order to gain results in healthy eating, one must craft messages that correctly portray healthy eating as a common behaviour can motivate individuals to adopt similar habits as well as focus on specific eating behaviours, such as increasing vegetable intake or reducing junk food consumption. Higgs et al. (2019) further show that even simple messages about the popularity of vegetable consumption among peers can increase the uptake of healthier choices in cafeterias.

Also, the impact of social norms is stronger when individuals identify closely with their group. The more relevant the group whose norms are being presented, the more likely individuals are to follow those norms. In addition, the way norms are presented also affects the impact. For instance, norms highlighting what others like to eat (liking norms) may be more influential than those simply stating what others eat. (Higgs et al., 2019.)

## **4.2 Communication channels**

Internet, including social networks and corporate websites, serves as a vital channel for sustainable marketing communication (Correia, et al., 2023; Mehmeti-Bajrami, Qerimi & Qerimi, 2022). These digital platforms offer numerous advantages, such as the ability to present information in diverse formats such as text, images, videos, and interactive content as well as making the messages more appealing and facilitating interaction with consumers (Correia et al., 2023).

However, they further highlight some risks associated with online communication channels which could limit the purchase of sustainable products in certain situations. For instance, consumers might be wary of green claims made online due to the prevalence of misleading information or greenwashing, where companies falsely portray their products as environmentally friendly without substantial evidence. Companies need to weigh both the benefits and risks of using digital platforms for green marketing. It implies that while online channels can significantly enhance the reach and impact of sustainable marketing messages, companies must be careful to maintain credibility and trustworthiness in their communications to avoid scepticism and ensure that their environmental claims are received positively by consumers. Although, Correia et al. (2023) mention digital format, the same can be considered to be true in any other marketing format as well. While digital marketing allows global reach, real-time engagement and is cost-effective with adaptable and trackable data, traditional marketing offers benefits like reaching local audiences effectively, enduring visibility with physical ads, and familiarity among consumers. (Mehmeti-Bajrami, et al. 2022.)

## 5 RESEARCH METHODOLOGY

When starting to form the idea of a research, one has to face the selection of the research methods and recognise the benefits and complexities they offer. Quantitative approach in research is often the way to find answer to questions “how many and who”, providing findings in statistical form. The focus group tend to be larger, randomly selected and the data is collected by outcomes and scores. (Lichtman, 2017). The properties of phenomena are, therefore, directly represented by numbers but in order for the data to be useful, interpretation and analysing is required (Hair, Wolfinbarger, Money, Samouel & Page, 2015).

The qualitative approach, on the other hand, typically helps to answer questions “why and what” and represent findings in thematic or narrative form. The studied group tends to be smaller and nonrandomly selected, aim for specific, socially constructed interpretations with the data gathered through interviews, observations, and visuals (Lichtman, 2017). Also, Hair et al. (2015) emphasise that qualitative research is, above all, grounded since it is based on the gathered evidence about the studied topic.

Although at first sight one may think quantitative and qualitative approaches are the opposites of each other, that is not in fact the case. As Mahoney and Goertz (2006) mention, the labels of these two analyses do not truly bring out the real differences and similarities between them. They further state that although quantitative analysis heavily uses numbers it also relies on words for interpretation. Qualitative research, on the other hand, uses numerical data as well and it is even required in many qualitative techniques. These two research approaches are, therefore, partly overlapping as well as complementing one another.

Whether one selects qualitative or quantitative research depends mainly on the field of study as well as the topic. For example, Lichtman (2017) mentions that in some fields qualitative methodology is used only if necessary whereas in some qualitative approach is preferably used. She also brings up the fact that recently *mixed-methods research* is used more frequently. This combines both qualitative and quantitative approaches. In addition, Mahoney and Goertz (2006) state that different research goals and assumptions cause fine advice and practice in one research may not be useful in the other.

In this research, there are clear benefits both quantitative and qualitative methods could offer. However, Hair et al. (2015) identify four key situations when the qualitative research method would be preferred:

1. Only a little is known about the research problem
2. Previous research does not fully explain the research question
3. Current knowledge includes subconscious, psychological or cultural material that is not attainable by using surveys and experiments

4. The goal is to propose new hypotheses and ideas that can be, in the end, tested with the quantitative method.

This section of the thesis outlines the methodological decisions undertaken and explains better the process.

## **5.1 Research methods**

Based on the recommendations of Hair et al. (2015), this thesis' topic falls under the situation where the knowledge involves includes subconscious, psychological or cultural material. Consumer behaviour as well as behaviour change are a part of psychology with a strong emphasis on the subconscious and cultural factors. Also, one may think that the topic is still evolving as the whole topic of sustainability is relatively new. Therefore, previous research may not give a satisfactory view on the matter. In addition, as the research question is directly addressing the operations of Semma, only one previous research has been conducted and, therefore, only a little is yet known on this specific case. Due to these factors, the qualitative method has been selected as the research method.

### **5.1.1 One-on-One interviews**

Face-to-face individual interviews were selected as the method to collect data for its benefits regarding this research. Interacting personally with each of one's research subjects allows one to establish a connection and address any concerns they may have about sharing information directly. Conducting an in-person interview can facilitate open and unbiased dialogue, as it provides opportunities to go deeper into topics and clarify any misunderstandings that may arise during the conversation. As a result, the data collected is comprehensive and less biased. (Saunders, Lewis, & Thornhill, 2019.)

The Semi-structured interviewing practice was selected as the way to conduct the interviews. Due to the fact that participants followed different diets, one unified set of questions would not fit all. Semi-structured way entails the creation of a comprehensive set of questions and a standardized format that is applied uniformly to all participants. While the overall structure remains consistent, the interviewer has the flexibility to adjust specific questions based on the situational requirements. (Lichtman, 2017). Therefore, the interviewer was able to ask follow-up questions and adjust the questions based on the situation.

## 5.2 Data collection

The interviews took place during the summer and autumn of 2023, involving students who were users of Semma restaurant services and were well-acquainted with both the restaurants and Semma itself. The interviews lasted from 25 to 45 minutes on average. The sole demographic factor collected pertained to their familiarity with Semma services; details such as age, gender, study field, or other similar information were deemed irrelevant and consequently not gathered (see Table 2). Most interviews occurred at the Semma restaurant Rentukka, chosen for its optimal and relaxed atmosphere. The primary aim was to garner a broad perspective. Additionally, the anonymous application Jodel was utilized to reach out to students interested in participating in the interviews, resulting in a total of nine conducted interviews.

| Participant | Study field              | Age | Gender | Diet                          |
|-------------|--------------------------|-----|--------|-------------------------------|
| Alpha       | Service Design           | 24  | Female | Flexitarian                   |
| Beta        | Cyber Security           | 28  | Male   | Flexitarian                   |
| Gamma       | Marketing                | 24  | Female | Flexitarian                   |
| Delta       | Social and Public Policy | 23  | Female | Flexitarian                   |
| Epsilon     | Political Science        | 25  | Female | Lacto-ovo vegetarian          |
| Zeta        | Accounting               | 26  | Female | Flexitarian                   |
| Eta         | Teaching                 | 28  | Male   | Flexitarian                   |
| Theta       | Business Management      | 29  | Female | Do not wish to be categorised |
| Iota        | Biology                  | 22  | Male   | Pescoterian                   |

Table 2. The demographics of the interviewees.

As part of the study, the participants were also asked to evaluate three distinct advertisements made for this research by Semma's Marketing department (see Figure 3). Each of the three ads highlights a unique reason why customers might choose vegetarian food: environmental reasons (A), health benefits of vegetarian food (B), and the ease of experimenting with vegetarian food alongside meat dishes (Mix&Match) (C). By doing this, insightful perspectives on what resonates with the audience and why were studied.

### Ympäristön hyväksi!

Suomalaisen kuluttajan ruokavalion ilmastovaikutuksia voidaan keskimäärin pienentää 30-40 % samalla kun ravitsemuksellinen laatu paranee! Tämä saavutetaan erityisesti vähentämällä lihan ja maitotuotteiden kulutusta, sillä nämä aiheuttavat suurimman ympäristökuormituksen. [1]

Suomessa noin 70 % peltoalasta käytetään eläinperäisen ravinnon tuottamiseen, mikä aiheuttaa muun muassa kasvipohjaisen ruoan viljelyä enemmän vesistöjen rehevöitymistä sekä metaan- ja typpioksidipäästöjä. [1,2] Sitäpa välttämällä kasvipohjaisen ruoan teet ympäristöteoni!



### For the climate!

On average, the environmental impact of a Finnish consumer's diet can be reduced by 30-40% while improving its nutritional quality! This can be achieved primarily by reducing the consumption of meat and dairy products, which account for the largest environmental footprint. [2]

In Finland, about 70% of arable land is used to produce animal-based food, which causes among others more eutrophication and methane and nitrous oxide emissions than the production of plant-based food. [1,2] So by choosing plant-based food you are doing an environmental deed!

[1] Virkkojärvi & Järvenranta. (2019). Neutroalajatuotannon ympäristövaikutusten arviointi ja sen vähentämistarpeet.  
[2] WWF Suomi (2022). Ruoan ympäristövaikutukset.

### Terveytesi vuoksi!

**Tue sydämen terveyttä:** Kasvisruokavalio on yhdistetty pienempään riskiin sairastua sydänsairauksiin, korkeaan verenpaineeseen ja kolesteroliarvoihin. [1,2]

**Vähennä kroonisten sairauksien riskiä:** Kasvisruokavalio voi pienentää riskiä sairastua kroonisiin sairauksiin, kuten tyyppiin 2 diabetekseen, tiettytyypisiin syöpiin ja jopa Alzheimerin tautiin. [1,2]

**Pidennä elinikää:** Tutkimus osoittaa, että kasvisyöjillä on pienempi kuolleisuuden riski verrattuna sekasyöjiin. [2]



### For your health!

**Promote Cardiac Health:** Vegetarian diets have been associated with a lower risk of heart disease, high blood pressure, and cholesterol levels. [1,2]

**Reduce the Risk of Chronic Diseases:** Plant-based diets can lower the risk of chronic conditions such as type 2 diabetes, certain cancers, and even Alzheimer's disease. [1,2]

**Increase Life Expectancy:** The study reveals that vegetarians have a lower risk of mortality compared to non-vegetarians. [2]

[1] Appleby & Key. (2016). The long-term health of vegetarians and vegans.  
[2] Orlich, Singh, Sabate, Jaceldo-Siegl, Fan, Knutsen, Beezler, & Fraser. (2013). Vegetarian Dietary Patterns and Mortality in Adventist Health Study 2.

### Tätä kasvisruokaa saa sekoittaa!

Kaikkia paitsi kappalerajoitettuja ruokia saa sekoittaa keskenään. Mistä siis valitka pieni määrä uutta kasvisruokaa jonkin toisen kastike- tai laatikkoruoan kanssa ja totuttele näin uusiin makuihin!

Jopa pienet muutokset, kuten eläinperäisten tuotteiden kulutuksen vähentäminen ja vihannesten osuuden kasvattaminen ruokavaliossa, ovat hyödyllisiä sekä sinulle että ympäristölle.



### You can mix this vegetarian dish!

All foods except the portion limited options can be mixed with others. So try out a new vegetarian option as a small portion first with another sauce or casserole dish and get used to the new tastes!

Even small changes like reducing animal product consumption and increasing the proportion of vegetables in your diet are beneficial for both you and the environment.

Lähde: Raphaely & Marinova. (2014). Flexitarianism: Decarbonising through flexible vegetarianism.

Figure 3. The ads A, B and C for Semma, designed by Iida Kortevaara, the Head of Marketing and Communications at Semma Oy.

### 5.3 Data analysis

The initial phase of analysis involved an immersive engagement with the collected data. This entailed readings of the transcribed interviews, during which preliminary notes were taken. This process was instrumental in developing an intimate understanding of the depth and nuances within the data, setting the stage for the subsequent coding phase. Following the analysis of the interviews, they were transcribed into written form by the writer and the primary data for this thesis was created. Consistently, the interview extracts presented in the research findings are translated freely into English by the researcher.

The study employed thematic analysis for examining the data, a method particularly advantageous for delving into the nuances of individuals' perspectives, experiences, beliefs, and opinions. This approach is distinguished by its ability to discern, examine, and delineate recurring codes and themes present within the data. This methodology is recognized for its capacity to unravel the complex layers of meaning embedded in text-based data. Thematic analysis facilitates the classification and interpretation of recurrent patterns, referred to as themes, throughout the dataset. In applying this method, specific codes are assigned to these themes, which are then meticulously connected back to the data to enhance the depth of analysis (Braun & Clarke, 2006).

## 6 RESULTS

This section outlines the research results of this thesis.

### 6.1 Diets and perceptions

There's a growing interest in adopting a plant-based lifestyle among those who are traditionally meat-eaters, pointing to a shift towards diets that focus more on plant-derived foods. Many individuals report reducing their red meat intake or incorporating more vegetarian options into their meals without fully committing to a vegetarian or vegan lifestyle. This 'flexitarian' approach reflects a balance between consuming meat and choosing vegetarian alternatives. Some people are making partial shifts towards a vegetarian diet, such as cutting out red meat or following vegan principles at home, while allowing for flexibility when eating out. A trend towards a diverse and inclusive diet is evident, with individuals enjoying a variety of foods without strict dietary restrictions, indicating a desire for a balanced and varied diet.

*"I'm quite an omnivore. I do try to eat a plant-based diet, but it often depends on laziness and comfort, what's available, and what looks good. But I feel quite open to being persuaded to eat vegetarian food."*

- Gamma

*"Well, I'm an omnivore and I also eat a lot of meat, but I try to choose vegetarian options sometimes and I'm open to them."*

*"I have a kind of, how should I put it, tendency to eat mostly vegetarian food, and I also eat some fish. Everything I buy for home is plant-based, though sometimes I've also bought fish. At work and school, I might eat fish too, because the vegetarian options might not always be appealing, and then there are few choices. At my parents' place, I do eat meat."*

- Theta

When it comes to perceptions, some participants stated influence by documentaries and stories that has broader their perspective about diets.

*"I've considered it ever since I watched that documentary about an athlete who switched to a vegetarian diet and saw improvements in*



*their performance and began to understand that diet does have an impact." - Alpha*

*"Sometimes, when I've watched a documentary like Seaspiracy, which talks about the environmental impacts of food production, I've become more attentive to these issues afterward." - Zeta*

Interestingly, the exploration of how food choices at Semma's restaurants differ from those at home reveals insightful variations in dietary habits. Through participant responses, it becomes evident that the dining environment significantly influences food selection, particularly regarding vegetarian options.

Many respondents note a distinct difference in their food choices at Semma compared to home, often citing convenience and the effort involved in meal preparation as significant factors.

*"Usually, I eat vegetarian food for lunch but make meat dishes at home. Just because I don't want to think about how to make the food and I make what I've learned to make." -Alpha*

This highlights a common trend where the availability of ready-made vegetarian options at Semma encourages diners to choose them over meat dishes, which they might default to at home due to familiarity and ease of preparation.

Semma's environment offers an opportunity for exploration that many seize. The variety and complexity of vegetarian dishes available, such as Thai food and butter tofu, tempt diners to try foods they would not typically prepare at home. Semma's menu can, therefore, encourage some diners to broaden their culinary horizons.

*"If there's a really good-sounding vegetarian dish that I'm like, 'Wow, I would never bother making this at home,' then I might go for it here" -Gamma*

The desire for personalized flavours, especially in terms of spice levels, emerged as a unique dining preference at Semma. Participants expressed a wish for options to 'tweak' dishes, such as adding chili to enhance the flavour to their liking, suggesting a demand for customizable dining experiences even within the constraints of a cafeteria setting.

While some respondents maintain similar dietary patterns at Semma and home, others leverage the restaurant setting to indulge in dishes they typically would not prepare at home, such as fish, due to its perceived complexity and cost. This indicates that Semma's menu influences not just the choice between vegetarian and meat options but also the variety within these categories.

The social and physical environment of Semma's restaurants plays a crucial role in shaping eaters' choices. The presentation and accessibility of vegetarian options, coupled with the influence of peers and the restaurant's atmos-

phere, can encourage individuals to opt for vegetarian dishes more frequently than they would at home.

*"At Semma, I usually eat vegetarian food, just like when I lived alone and didn't buy meat for home and tried to eat vegetarian in student restaurants too because it solves the problem of not knowing how to make it." -Delta*

Some participants see their experiences at Semma as educational, exposing them to a wider range of ingredients and dishes that they might consider incorporating into their home cooking. There was a hope for multiple vegetarian options and the emphasis on plant-based dishes that could also serve as an inspiration for more vegetarian cooking at home and affect the issues in much larger scale.

## **6.2 Motivations for choosing vegetarian food**

Participants displayed a good understanding of the benefits associated with reducing meat consumption when discussing their reasons for opting for vegetarian choices. Additionally, many mentioned how different life stages influenced their meat consumption patterns. Following periods of heavy meat consumption, there is often a desire to rebalance one's diet, and the opposite can also be true. This shows a deliberate effort to achieve a balanced diet and emphasizes how life experiences, such as travels or changes in life circumstances, can profoundly shape dietary preferences. The occurrence of temporary vegetarian phases, triggered by specific life events or changes, suggests that dietary preferences are dynamic and influenced by context. These temporary shifts demonstrate the flexibility of dietary habits to adapt to new situations or personal developments.

*"I've had two periods of vegetarianism, both of which occurred after I had been on exchange abroad, and I felt like I had somewhat overdosed on meat consumption." -Gamma*

*"When I first moved out on my own at the beginning of my studies, I ate very little meat then." -Delta*

*"When I was younger, got into "healthy things" and became a vegetarian, but then it was not really good for me. Maybe I couldn't quite assess what an okay amount of healthiness was, or in a way, it went a bit overboard and I had to return to being an omnivore." -Eta*

Health was found to be a factor that everyone recognised as a factor to choose vegetarian diet over meat one. Especially, general wellness, prevention of certain diseases such as heart and cardiovascular diseases, and potentially lower risks of some cancers, better management of weight, plant-based foods is specifically mentioned, with an emphasis on the better quality of fats in vegetarian diets and overall healthier lifestyle choices were highlighted.

*"...Of course, for health reasons including heart and vascular diseases, overweight, and increased risk of gastrointestinal cancer." -Iota*

*"Vegetarian food is a healthier option at least in terms of the fats it contains and their quality" -Beta*

*"There's a big difference between vegetarian and meat options, for example, in the types of fats, as vegetarian food doesn't contain any saturated fat." -Epsilon*

*"Vegetarian options have more vitamins and meat options can cause heart diseases" -Theta*

Another highly highlighted benefit of vegetarian diet was the environmental benefits. Respondents show varying levels of awareness and knowledge regarding the specific benefits of vegetarianism. While some are well-informed, others admit to having limited knowledge but are aware of the general benefits. However, even though everyone mentioned environmental aspects as one crucial benefit of vegetarian diet, there were hesitations when asked to elaborate that what these benefits might be. Emissions were mentioned most often.

*"Not very well (laughs), I mean, I don't really even know, but I would say that carbon dioxide emissions (question mark) sounds familiar, but I'm not entirely sure, that's how poorly I know about the subject."-Zeta*

*"It [vegetarian food] is also scientifically proven to be more environmentally friendly than, for example, beef cattle, specifically because of the emissions."-Epsilon*

*"Vegetarian food doesn't require as much land for growing, often also water usage is lower. All the feed needed for meat production isn't needed for vegetables, because we eat the vegetables directly. And emissions are higher in general from meat production." -Theta*

Following the two aspects, ethical concerns, particularly animal welfare, was highlighted as one reason to favour vegetarian food. Respondents express dis-

comfort with the idea of consuming animals, particularly in the context of industrial animal farming and slaughtering processes.

The aspect of justice and fairness towards animals is also brought up, indicating a moral stance against the perceived cruelty involved in meat production. This theme underscores the moral dilemmas faced by individuals and the profound impact that ethical considerations can have on dietary decisions. For some, the ethical implications of meat consumption have become a primary driver in their commitment to a vegetarian diet.

*"I'm also a huge animal lover and I find it easier to live with myself knowing that I don't eat animals. I tend to feel anxiety and guilt quite easily." -Iota*

*"The biggest factor [to eat vegetarian food] initially was animal rights and ethics." -Epsilon*

*"I cannot eat sheep, I love them!" -Alpha*

Beside of the three main reasons, there were other recurring themes that motivates consumers to choose vegetarian food. Social norms could have been found to be such. Respondents mentioned the societal setting where vegetarian food was selected due to the group of people such as family or friends which contained vegetarians. Also, the social pressure in Finland, especially within the higher education and university setting, might favour vegetarian diets due education and awareness. Nevertheless, most respondents said no social pressure was expressed with friends.

*"In my family, there are vegetarians and I also eat vegetarian food with them but with friends, I don't feel social pressure to eat/not eat vegetarian food." -Eta*

*"Social pressures, maybe a bit, if I'm in a group and we're making food together, it's easier to just eat what everyone else is eating, otherwise I'd have to bring my own food." -Delta*

*"At work, I often choose the vegetarian option as a form of protest, since I would like more people to choose vegetarian food and for it to become more of a norm, and for them to see that vegetarian food isn't much different from meat dishes. It's not such a big deal, that if you choose vegetarian food, it doesn't change your entire personality." -Theta*

*"I don't believe there would be social pressures, definitely not, because that [vegetarianism] is becoming such a common way of eating, and*

*just like I said, among my close ones there are also those who follow that [vegetarian] diet quite strictly.” -Zeta*

A willingness to experiment with vegetarianism was evident in some responses by the influence of close contacts such as friends or family. This demonstrates the role of personal relationships and a spirit of exploration in shaping dietary choices, with individuals often open to trying new diets based on the experiences and recommendations of those they trust.

### **6.3 Barriers for choosing vegetarian food in Semma’s restaurants**

*“There still often a huge disparity between vegetarian and meat dishes that is really astonishing and creates a significant inequality.” -Iota*

A significant factor that was repeated by participants was the familiarity and comfort of meat diet. Trying new vegetarian options is seen as a personal challenge for culinary. This requires a willingness to step out of comfort zones and try new things. Respondents also stated to be so used to meat-options that vegetarian options are just found too odd. Many stated that they simply do not know what all the vegetarian options actually are.

*“It would just require that I start trying it out myself, it's maybe just now that I am still a slave to my habits.” -Eta*

The transition to vegetarianism is seen as requiring a significant commitment, which can be daunting for some. Also, the pure laziness and lack of time to make deeper research on the topic was brought up. Slightly similarly, for some, food choices are closely tied to their identity and personal choices. There is an element of resistance to feeling restricted or dictated to in dietary choices, highlighting the importance of autonomy in food-related decisions. Therefore, the desire to try any type of new food was seen as highly personal matter.

*“It requires commitment, and the diet has to be at a level where you don't feel that vegetarian food is limiting you but that it's a choice. I would feel restricted and limited.” -Alpha*

Transitioning to vegetarian food, which has a different flavour profile, can be challenging. Additionally, some individuals express a reluctance to try new foods due to texture or taste preferences. Taste is a recurring theme, with many respondents indicating that they have grown up eating meat and are accustomed to its taste.

*“In terms of taste, I like the flavour and texture of meat. Finding equivalent options in vegetarian dishes that would give me the same satisfaction in terms of hunger and dining experience as meat dishes might be the biggest issue.” -Beta*

*“Vegetarian food tastes different, but just like anything else, you'd probably get used to it and eventually come to like it.” -Delta*

*“I've been quite picky since I was little, so there's also this thing where I'm not very adventurous with trying new foods, and I have a bit of a texture eater problem” -Zeta*

Although health reasons were highlighted as positive part of vegetarian diet, conversely, concerns about achieving a balanced diet and getting enough essential nutrients including proteins, iron, and vitamin B12, which are typically associated with meat consumption.

*“And then there's the nutritional content, such as protein and iron, which requires looking into the subject because if I were to go to the store now and think about where to get my protein and such, I definitely wouldn't get everything right.”-Alpha*

*“Nutrients could probably cause difficulties, as I'm not at all familiar with that aspect, since I've never been a complete vegetarian. And especially getting enough proteins. I do know that if you're fully vegan, you need to take vitamin B12 supplements.”-Delta*

## **6.4 Communication**

The investigation into how communication methods influence individuals' willingness to try vegetarian food reveals a multifaceted landscape of motivations, barriers, and responses. Drawing on interview responses, several themes emerge, each highlighting a different aspect of the communicative process and its impact on dietary decisions.

### **6.4.1 Example communication ads**

The Mix&Match concept, allowing diners to combine vegetarian and meat options, received notable appreciation for its flexibility and approachability. It was also most chosen version of the ads.

*"Both health and environmental issues are things I'm already aware of, and somehow I think that when you go to eat while hungry, am I interested in starting to think about things like the environment being destroyed or my health?"-Delta*

*"Definitely this, being able to mix (C)! That mix would certainly encourage me to try, and I've already done it." -Zeta*

*This C option. It is better to offer something extra rather than trying to make customers give something up. -Beta*

This sentiment was echoed by another respondent who highlighted the potential of Mix&Match to lower the barrier to trying vegetarian food.

*"Somehow I feel that any of these alone might not necessarily work, but combined, for example, with that mixing option (C) and getting the same amount of protein (B), then there would definitely start to be a feeling that I should start eating more vegetarian food here." -*

*Gamma*

Environmental reasons also struck a chord with many, particularly given the increasing awareness of climate change and sustainability. However, the impact of this messaging varied among individuals, with some seeing it as a critical factor while others felt it was somewhat distant from their immediate concerns.

*"For me personally, the environmental aspect appeals more... This mix could really work, but I feel that it could emphasize even more how even a small change can make a big difference in the grand scheme of things."-Theta*

The health benefits of vegetarian food were acknowledged as important by many respondents, particularly those mindful of their dietary habits and wellness. The immediate and personal impact of health-focused messaging was seen as compelling. However, the effectiveness of this message varied, with some participants feeling that it was less influential compared to the other two themes.

*"For me, health reasons are the most important because they directly affect me personally."-Iota*

The visual presentation of the ads and the context in which they were encountered played a significant role in their reception. Bright colors and clear, concise information were preferred.

*"In my opinion, these are written concisely enough, yet still provide sufficient information. They are clear and have nice colours, so they could definitely work." -Eta*

The placement of ads was also crucial, with suggestions that Mix&Match messaging might be most effective at the point of food selection, whereas more detailed information on health and environmental benefits could be better suited to tableside reading where one has more time to digest the information.

#### **6.4.2 Communication strategies**

Many participants recounted instances where family members or friends played a significant role in encouraging them to try vegetarian dishes. Visits to a vegetarian sibling or a friend's recommendation often led to positive experiences with vegetarian food, suggesting that personal relationships and trust significantly impact dietary exploration. This form of communication, rooted in personal experience and trust, appears to be highly effective, fostering a sense of inspiration and curiosity rather than pressure.

*"My sister has often tried to turn me vegetarian... when visiting her, I eat her (delicious) vegetarian food, and often get inspired to try making it myself at home."-Alpha*

Digital platforms, particularly social media, stand out as powerful vehicles for influencing dietary choices. The presence of platforms like Instagram and TikTok in daily life means that food-related content, whether through advertisements, influencer partnerships, or peer posts, frequently intersects with users' digital experiences. Visual content, especially videos and appealing images, captures attention and can inspire individuals to explore vegetarian options. Participants expressed a preference for content that is engaging, relatable, and informative, suggesting that successful digital communication should blend visual appeal with concise, compelling information.

*"If someone raves about something on Instagram, I get curious and often try it myself"-Alpha*

*"It feels like in today's fast-paced world, young people don't have the time (or the energy) to read long texts, but video content is consumed even more. Of course, Instagram still has a lot of users, so that too. From my perspective, I would say Instagram and then traditional communication that occurs in the restaurant."-Theta*

The role of influencers and public figures in promoting vegetarian diets is nuanced. Partnerships with influencers who are genuinely respected and followed for their lifestyle choices can be persuasive, especially if they share personal sto-



ries or benefits they have experienced from adopting a vegetarian diet. However, the authenticity and relatability of the influencer are crucial; endorsement from someone perceived as too distant from one's own values or lifestyle may have limited impact.

Commercial advertising, particularly from brands like Oatly or Round, has left a notable impression on some respondents, guiding them towards alternative products like oat milk. The effectiveness of such campaigns seems to hinge on challenging preconceptions and presenting vegetarian or plant-based alternatives as viable, appealing choices. Bold and creative advertising that breaks the mold can resonate deeply, especially when it employs humour, challenges norms, or provides compelling factual information.

*"Oatly's advertising has definitely played a big role in me switching to oat milk"-Gamma*

*"A good example of something I've come across, is Round donuts in Helsinki: they have really succeeded in branding in a way that doesn't overemphasize the fact that "hey, we are entirely vegan" but also focuses on the product tasting good and being very inviting as a brand, especially on social media. I got interested in it particularly through social media, and also because they looked appealing. Then, the vegan aspect is just a plus"-*

*Eta*

The emotional and rational responses elicited by vegetarian communication are complex and varied. Some respondents appreciate direct, fact-based communication that provides clear reasons for choosing vegetarian options, such as health and environmental benefits. Others respond better to communication that evokes positive emotions, highlighting the joy and satisfaction that can come from vegetarian eating without resorting to guilt or fear-based tactics.

*"The biggest factor is 'challenging preconceptions' ... like with Oatly, showing there are alternatives to traditional milk"-Gamma*

An important aspect of effective communication is the tone and approach it employs. Messaging that is too aggressive or guilt-inducing can alienate potential adopters of vegetarian diets. Instead, communication that is welcoming, informative, and non-judgmental invites individuals to explore vegetarian options at their own pace. This approach respects individual autonomy and recognizes the diversity of dietary preferences and motivations.

*"I don't find it annoying... I ultimately make the decisions. Everything can be advertised and recommended, but it's my choice at the end"-Alpha*

*"Yes, it's definitely a positive thing, it doesn't stress or annoy me in any way. Perhaps also if the communication isn't too aggressive, it al-*

*so affects the feeling in a certain way. I take it well because the fact is that it brings something new and good for oneself, so I don't see anything bad in it at all. But the communication must remain such that you still have the freedom to choose and aren't judged if you eat meat. So, encouragement and motivation, not coercion." -Zeta*

*"Mostly, the communication I've encountered has been quite harsh and aggressive, showing images of poultry farms, depicting the conditions in which chickens live. However, I find this mostly irritating when the advertising is so forceful. So, I don't really like that. I would prefer more positive communication, allowing people to make their own choices, but still guiding them towards healthy and low-carbon footprint options. In my opinion, that's better than aggressive, sad images of animals." -Beta*

The communication surrounding vegetarian diets and the encouragement to try vegetarian food is received in a spectrum of ways by individuals. While some find inspiration and motivation in the messages they encounter, others value the subtlety and personal relevance of the communication. The most effective strategies combine factual information with emotional appeal, presented in a visually engaging, relatable, and non-intrusive manner.

Figure 4 below provides an overview of the main findings of this thesis.

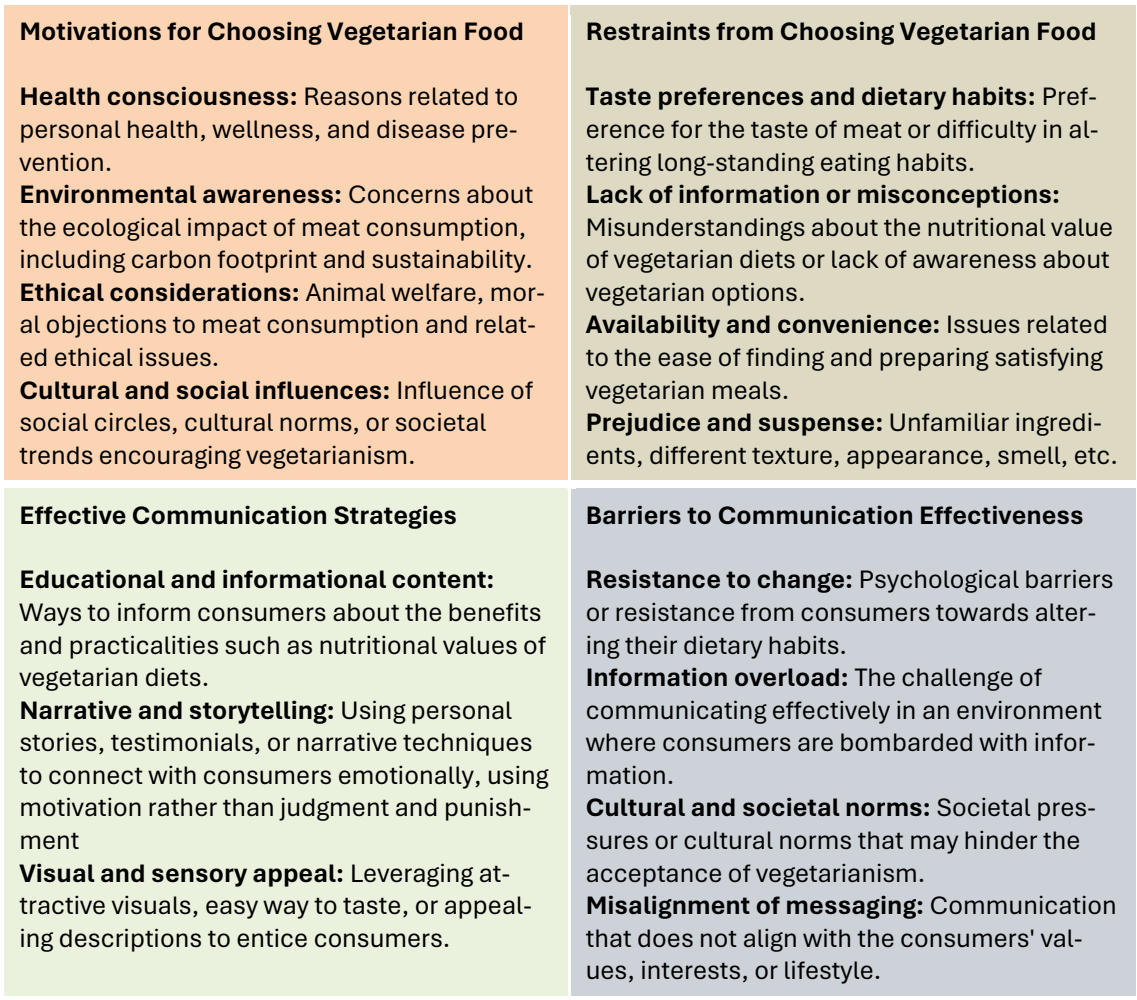


Figure 4. The results of the interviews.

## 7 DISCUSSION

This chapter presents an integrated view of the theoretical and empirical research findings regarding vegetarianism and consumer behaviours at Semma restaurants. By weaving together literature and the collected data, the aim is to offer insightful conclusions that can guide future interventions and strategies for promoting vegetarian diets and reducing carbon footprint.

### 7.1 Findings

This thesis has established that vegetarian diets could mitigate environmental impacts including reduced greenhouse gas emissions and less strain on resources like land and water as well as enhance public health (Hunter & Röö, 2016; Hargreaves et al., 2021). These benefits form a crucial argument for the promotion of vegetarian options in settings like Semma, a company that wants to operate sustainably and lower the carbon footprint.

Although Semma's consumers are generally well-aware of different reasons to follow vegetarian diet and the benefits, the research findings revealed some hesitation among Semma's customers to adopt these options fully, a finding that echoes the skepticism about the effectiveness of individual actions in combating climate change noted by Mäkinemi and Vainio (2013). Also, pure convenience and familiarity of meat containing food was highlighted a key reason both by Mäkinemi and Vainio (2013) as well as the participants of the study.

The study identified health benefits, environmental concern, and ethical considerations as primary motivators for choosing vegetarian food, which align with the theoretical benefits discussed by Lawrence & McNaughton (2019) and Hargreaves et al. (2021). Despite these motivations, significant barriers such as taste preference, habitual eating patterns, and a lack of compelling vegetarian options persist, supporting the findings of Gonzalez-Arcos et al. (2021), who noted that sustainability interventions often require profound behavioural changes rather than mere awareness.

Indeed, Kollmuss and Agyeman (2002) discuss how despite a growing interest and positive attitudes toward sustainability, there often exists a gap between what people say and what they do – the attitude-behaviour or value-action gap. Although many Semma customers acknowledge the benefits of a vegetarian diet for health and the environment, only about 25% of meals sold are vegetarian (Sallinen, 2023). This exemplifies the attitude-behaviour gap where the positive attitudes towards vegetarianism do not consistently translate into the actual choice of vegetarian meals.

Blake (1999) identifies three main barriers to pro-environmental actions: individuality, responsibility, and practicality. These barriers highlight that pro-environmental behaviours are influenced by more than just attitudes, but they are also constrained by personal, social, and institutional factors. In the research, some consumers felt that vegetarian options did not appeal to their taste preferences or did not fit their habitual dietary patterns. This aligns with Blake's observation where personal preferences or conflicting attitudes outweigh environmental concerns.

On the other hand, some Semma customers might not see choosing vegetarian options as their personal responsibility towards sustainability or believe their individual choices make a significant impact. This reflects Blake's note on individuals doubting their influence on broader environmental outcomes and their responsibility on the matter. Also, practical issues such as the availability of appealing vegetarian options and the lack of information on the vegetarian meals were evident in the findings. This aligns with Blake's (1999) practicality barrier, where even willing individuals find it hard to act due to external constraints.

Blake (1999) and Kollmuss and Agyeman (2002) discuss the significant role of social and cultural norms in shaping behaviour, which can often hinder pro-environmental actions. Especially, the influence and ideology of peers and family might have an effect on one's behaviour. The research suggests the same, however, quite the opposite than in the literature: None of the mixed eaters felt that choosing vegetarian options would be negatively viewed by their peers but that it was even expected or valued. One could even argue that eating meat could be seen as something to be ashamed of in the setting where the research was conducted. While interviewing, many participants seemed to be keen on explaining their meat-eating or emphasizing their eagerness to choose vegetarian options. The vegetarians, however, felt somewhat a liability to others if requesting vegetarian food in a group setting.

Choosing vegetarian options in Semma's restaurants is, therefore, influenced by peer behaviours or the perceived norm within the student community which seem to be leading towards valuing and recognising the benefits of vegetarian diets. Based on the finding, the following strategies for Semma might help to reduce the attitude-behaviour gap:

- Developing more appealing vegetarian dishes to overcome the individuality barrier.
- Enhancing marketing campaigns that emphasize the collective impact of individual choices to address the responsibility barrier.
- Increasing accessibility and information about vegetarian options to tackle practical barriers.

Communication, as described by Kotler and Keller (2015), involves a wide range of activities aimed at influencing and persuading individuals or groups. This aligns with the findings from the thesis, which emphasize the significant impact of descriptive and injunctive norms, as well as benefit appeals on consumer choices at Semma restaurants. The results suggest that descriptive norms,

which highlight popular vegetarian choices, effectively encourage consumers to select these options, reflecting the importance of showing what others are doing to influence individual choices. Injunctive norms, which focus on what others think one should do, have shown a less pronounced but still relevant impact on consumer choices. This is consistent with the literature, which suggests that the effectiveness of these appeals varies depending on the activation of the collective versus individual self (White & Simpson, 2013).

The theoretical framework suggested that effective communication should focus on highlighting the personal relevance of vegetarian diets and avoid guilt-inducing tactics (Hunter & Rööös, 2016), with positive emotions (Penz & Hoffman, 2021). The research findings supported this, showing that Semma's customers responded positively to communication that was informative yet non-coercive, emphasizing the personal health benefits and easiness of vegetarian options. This approach aligns with the suggestion by Mäkinemi and Vainio (2013) that communication needs to make the environmental and health benefits of vegetarianism personally relevant and actionable.

Moreover, in order to effectively increase the uptake of vegetarian options, it is recommended that Semma enhances the appeal of its vegetarian dishes by focusing on taste and variety, potentially incorporating innovative culinary techniques that make vegetarian dishes as satisfying as their meat counterparts.

Nevertheless, communication strategies should harness the principles of social marketing to craft messages that resonate with the target demographic's lifestyle preferences and values, potentially through digital platforms as suggested by New Nutrition Business (2022). Regarding the findings show Semma's customers can be unfamiliar with the vegetarian options. To bring the options easier to choose, Semma could raise the awareness of different options by communicating nutrition values and ingredients clearly to the customer. Participants address social media (Instagram and TikTok) as the main gateway to their attention. In addition, messages should be also placed in-restaurant for the most effective results.

The role of digital platforms in communicating sustainable practices and the risks associated with online communication, such as greenwashing, resonate with the concerns highlighted by Correia et al. (2023) regarding the credibility of environmental claims. The research findings underscore the need for credible and trustworthy communication to foster consumer confidence and facilitate the adoption of sustainable behaviours. Indeed, as mentioned by Higgs et al. (2019), by highlighting the desirable behaviour as the "norm", one can motivate individuals to adopt similar habits. This type of social norm approach, which leverages the influence of perceived norms to normalize desired actions, has been successfully applied in various settings. This aligns with the literature that emphasizes the importance of perceived norms in shaping behaviour, particularly in health-related contexts (Burchell et al., 2013; Higgs et al., 2019).

Based on the findings, Semma should exploit SNA by trying to understand the specific dietary behaviours and preferences of their consumer segments to tailor the campaigns effectively. Semma could also highlight the behaviours of fellow students or specific groups known for their healthy or environmentally conscious choices could enhance the relevance and effectiveness of the messages.

The successful promotion of vegetarian options at Semma requires a structured implementation plan that aligns with both the strategic objectives of the organization and the preferences of its customers. The first phase of the plan involves stakeholder engagement. This crucial step ensures the support and input of all parties impacted by the proposed changes, including Semma management, university administrators, student representatives, and food service staff. By organizing meetings to discuss the findings and proposed changes, stakeholders can offer valuable feedback that will help refine the implementation process. Based on the thesis findings, Semma can draw first idea of how the restaurant customers see the topics in question.

Following stakeholder engagement, the next step is strategic planning. A marketing team, comprising Semma's marketing staff and possibly an external consultant, will be tasked with developing a detailed communication strategy. The already existing ads used in this research could be utilized as a baseline. The strategy will focus on key messages that highlight the personal health benefits, environmental impacts, and the appeal of vegetarian options. This phase will also include the development of a timeline and budget for the campaign.

Once the strategic plan is in place, the campaign development phase can begin. This involves the design and preparation of marketing materials that promote the vegetarian options in an attractive manner. The materials will include digital advertisements for social media platforms (Instagram and TikTok), informative blog articles (website), and promotional posters and flyers to be displayed within campus dining areas. These materials will emphasize the taste and benefits of vegetarian meals as well as the "mix&match" approach to encourage consumer interest and trial.

An essential component of the plan is staff training. The staff, both chefs and service, should undergo training sessions to ensure they understand the benefits of vegetarian diets, are able to prepare innovative meals and know the key elements of the campaign.

The start of the campaign should include promotional activities such as discounts on vegetarian meals and free sample tastings. The initial response to the campaign will be, therefore, closely monitored, allowing for quick adjustments to be made based on customer feedback and engagement. Further on, the impact must be monitored, for example, the data on the sales of vegetarian dishes plays a crucial role.

The final phase of the plan involves making long-term adjustments based on the campaign's outcomes. This could include regular updates to the vegetarian menu to reflect emerging dietary trends and ingredients.

The practical implications of these findings and guidelines are significant for Semma restaurants and similar establishments aiming to promote sustainable food choices. By ensuring the credibility of their environmental claims and integrating a viable implementation plan for effective communication strategies, can these businesses can influence consumer behaviour towards more sustainable practices.

Additionally, the research highlights the importance of understanding the multifaceted nature of consumer behaviour and the various factors that influence food choices, including taste, health, convenience, and ethical considerations. By addressing these factors through targeted communication strategies, Semma can enhance its ability to influence consumer choices effectively.



## 8 CONCLUSIONS

This thesis explores the motivations and barriers influencing consumer choices towards vegetarian food in Semma, university campus restaurants. Semma is a company managing multiple food service locations in Jyväskylä, Finland. Building on previous research that identified the vegetarian diets the main way to reduce Semma's carbon footprint, this study delves into how environmental benefits, alongside health and ethical considerations, shape consumer behaviour. Furthermore, it examines the effectiveness of communication strategies in promoting vegetarian choices.

The findings reveal that environmental awareness and health benefits are primary motivators for choosing vegetarian options. Consumers are increasingly recognizing the impact of their dietary choices on the carbon footprint and the potential health advantages associated with vegetarian diets, such as reduced risks of chronic diseases, cancer and better overall well-being. Also, many have emphasized the ethical considerations such as animal welfare and morality as reasons to favour vegetarian diet.

However, despite these motivations, substantial barriers remain. Many consumers have a long-standing preference for the taste and texture of meat, which makes transitioning to vegetarian options challenging. Meat-based dishes are often seen as more convenient, especially when they align with familiar eating habits fear of new things. Also, there is a perception that vegetarian diets may not provide all necessary nutrients, such as protein, iron, and vitamin B12, which acts as a huge barrier for some.

The role of communication in influencing food choices is pivotal. Effective communication strategies that highlight the personal benefits such as health and taste as well as environmental benefits of vegetarian diets can encourage more sustainable eating habits. Semma's marketing efforts need to focus on crafting messages that resonate with both the ethical and practical aspects of consumer decision-making. The research suggests that emphasizing the local impacts of climate change and the direct health benefits of vegetarian food can make these options more appealing.

Semma should use marketing messages to lower the barriers. Therefore, Semma should provide clear, factual information about the nutritional benefits of vegetarian dishes, including information on how they meet dietary needs such as protein, iron, and other essential nutrients, can help alleviate concerns about nutritional adequacy. The marketing activities should also harness social norm approach which would leverage the influence of perceived group behaviors to promote vegetarian choices. By showcasing how common and accepted vegetarian eating is among peers, this strategy can normalize plant-based dining and create a sense of community around sustainable eating practices. This can motivate individuals to adopt vegetarian options more frequently, especial-

ly when they see that their peers are also making similar choices, thereby reinforcing the behavior as a social standard within the campus community.

Additionally, the thesis addresses the 'attitude-behaviour gap' observed among consumers. While many express a favourable view towards vegetarianism, their actual food choices at Semma restaurants often reflect a preference for familiar, meat-based dishes. This gap underscores the need for interventions that go beyond mere information dissemination, aiming to reshape social norms and eating practices on campus.

In conclusion, this study highlights the complex interplay of environmental, health, and social factors that influence dietary choices at university campuses. It underscores the necessity for targeted communication that not only informs but also actively engages consumers in making choices that are both personally and environmentally beneficial. As the demand for sustainable dining options grows, institutions like Semma have a significant role in shaping future food landscapes through innovative strategies that promote environmental stewardship, health, and ethical consumption.

## 8.1 Limitations

The study offers important insights into the consumer behaviour and the motivations and barriers preventing the selection of vegetarian options at Semma restaurants. Nevertheless, it has been conducted within the context of high educational settings in Jyväskylä. The study focused on individuals with high educational backgrounds, limiting the diversity of perspectives. Consequently, the results may not represent the views or experiences of those from different educational levels or fields.

The participants were predominantly within the age range of 20-30 years, which might not reflect the broader population's experiences or attitudes towards the topic. Also, given the high level of education and possible specialization of participants, their views could be distinct from those of the general public.

Also, the sample was relatively small, containing 9 participants altogether. This sample size, while sufficient for in-depth qualitative analysis for this specific study, limits the generalizability of the findings. However, qualitative research often focuses on specific, socially constructed interpretations rather than aiming for broad generalizability (Lichtman, 2017). This approach was intentionally chosen, acknowledging that the insights gained would primarily reflect the experiences and perceptions of Semma customers.

The limitations in terms of population scope, geographical and cultural specificity, age group, and level of education must be acknowledged. These findings cannot, therefore, be assumed to be the reality everywhere. These limitations highlight the necessity for further research, encompassing more diverse

demographic and geographical settings, to validate, refute, or expand upon the findings presented herein.

Additionally, the influence of the researcher's role in this study, through the selection and interpretation of literature, the assumptions derived from that literature, and the thematic analysis of data, has been acknowledged as a potential factor affecting the outcomes of this thesis.

## **8.2 Recommendations for future research**

Future studies could broaden the scope to include other campuses or different demographic settings to compare and contrast the effectiveness of similar interventions. Such research could examine how cultural, regional, and economic factors influence dietary choices and the success of vegetarian promotional strategies. Also, the difference between genders could be studied.

Further research could delve deeper into the psychological and sociological aspects influencing dietary choices. Studies could explore the role of identity, social norms, and peer influence in adopting vegetarian diets. Additionally, the psychological barriers to changing dietary habits, such as resistance to change or fear of social exclusion, could be examined more thoroughly.

Also, the role of emerging technologies in promoting sustainable eating habits presents a promising area for research. Future studies could explore how digital platforms, social media, and mobile applications can be optimized to encourage vegetarian diets. The impact of virtual reality, gamification, and other interactive technologies could also be investigated to see if they offer new avenues for effective communication.

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# APPENDIX 1

## Interview questions in English

1. How would you describe your diet?
2. What benefits do you see/know about consuming vegetarian food?
3. Have you ever considered transitioning to a vegetarian diet? Why or why not? /// Have you ever considered going back to a meat-based diet?
4. What are some factors that have influenced your decision to consume or not consume vegetarian food in Semma's restaurants?
5. What challenges do you face when trying to consume more vegetarian food?
6. Do you notice or pay attention to food-related messaging? What would be the right place and topic for communication that would catch your attention, for example, in Semma restaurant?
7. What communication methods do you think would be effective in motivating people to choose vegetarian food?
8. Have you ever been encouraged to try vegetarian food through a particular communication method (such as advertising, social media, word of mouth)? If so, what was convincing about that communication? What not? What feelings this type of "vegetarian communication" raises in you?
9. What could Semma do better, in your opinion, to promote and encourage the consumption of their vegetarian food options?
10. Does the food you choose at Semma's restaurants differ from what you eat at home in any way?
11. These three advertisements all emphasize one reason why Semma's customers may choose vegetarian food. Which of these do you feel could most affect your food choice at a restaurant, and why? What would you think if you saw these in a table? How about in the counter Do you think such communication can be effective? Would you change anything?
  - A) Environmental reasons
  - B) Health benefits of vegetarian food
  - C) Mix&Match - easy to try vegetarian food alongside meat options



## Interview questions in Finnish

1. Miten kuvailisit ruokavaliotasi?
2. Mitä hyötyjä näet/miten paljon tiedät kasvisruoan kuluttamisessa?
3. Oletko koskaan harkinnut siirtymistä kasvisruokavalioon? Miksi tai miksi et? /// Oletko koskaan harkinnut palaavasi liharuokavalioon?
4. Mitkä ovat tekijöitä, jotka ovat vaikuttaneet päätökseesi kuluttaa tai olla kuluttamatta kasvisruokaa?
5. Mitä haasteita kohtaat yrittäessäsi kuluttaa enemmän kasvisruokaa?
6. Koetko, että huomaat tai kiinnität huomiota mahdolliseen ruokailua koskevaan viestintään? Mikä olisi oikea paikka ja aihe viestinnälle, esimerkiksi Semman ravintolassa, joka kiinnittäisi sinun huomiosi?
7. Mitkä viestintätavat olisi mielestäsi tehokkaimpia motivoimaan ihmisiä valitsemaan kasvisruokaa?
8. Onko sinua koskaan yritetty saada kokeilemaan kasvisruokaa jonkin tietyn viestintätavan (esim. mainonta, sosiaalinen media, suusanallinen viestintä) avulla? Jos on, mikä siinä viestinnässä oli vakuuttavaa? Mikä ei? Millaisia tunteita kasvisruokaviestintä sinussa herättää?
9. Mitä Semma voisi sinusta tehdä paremmin edistääkseen ja kannustaakseen kasvisruokavaihtoehtojensa kulutusta?
10. Eroaako Semman ruokaloissa valitsemasi ruoka kotona syömästäsi ruuasta mitenkään?
11. Nämä kolme mainosta kaikki korostavat yhtä asiaa, jonka takia Semman asiakkaat saattavat valita kasvisruokaa. Minkä näistä koet voivan eniten vaikuttaa ruuan valintaasi ravintolassa ja miksi? Mitä ajatlet, jos näet tällaisen pöydässä ruokailun yhteydessä? Entä linjastolla? Koetko, että tällainen viestintä voisi olla tehokasta? Muuttaisitko mitään?
  - A) Ympäristösyys
  - B) Kasvisruuan terveysvaikutukset
  - C) Mix&Match – kasvisruuan helppo kokeilu liharuuan rinnalla