# Exploring Food Waste in Private Households in Skåne 

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## Abstract

In 2020, 200 million children under the age of 5 were reported to be malnourished and between 720 and 811 million people around the world faced hunger. Yet, the global food production have the potential to feed every human being twice the amount required. So what is happening with all that food? 1.3 billion tonnes of the global food supply is wasted every year, which accounts for one third of the food produced. In Sweden, private households stand for $70 \%$ of the total waste. Food waste has been a problem for some time now. So, the goal with this study is to investigate reasons that contribute to this high food waste and suggest a solution or guidelines to prevent/reduce that in private households in the Skåne county. To explore the topic, academic literature were reviewed and Nine semi-structured interviews were conducted with the target group for this study, i.e., families living in Skåne county with children living at home and both parents working. Additionally, 103 responses were gathered through an online questionnaire from the same target group.

The findings revealed that families struggled with planning properly before they entered a grocery store, which meant that they ended up buying much more than they needed. Moreover, it was revealed that people had the tendency to get sidetracked during shopping. These practices, in most instances, resulted in double and over buying, and impulsive shopping, which meant that more food was going to waste without ever being consumed in their respective households.

With these findings in mind, we have hypothesized that online shopping has the potential to prevent food waste in private households, as well as created a design on how to get more people feeling comfortable doing grocery shopping online based on a human centred design approach.

To conclude this thesis, we define the contributing factors of household food waste and argue that food waste can be reduced by a significant amount if people are shopping online and are adhering to some sort of food budget to control their spendings.

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## Chapter 1

## Introduction

Climate crisis has been an issue for a period of time and is a term that is used to describe Global warming. Man-made climate change has been identified as a real threat to the planet and its inhabitants (Ciwf, n.d.) \& (Canada and Change, 2019). Since the beginning of Industrial revolution, the amount of fossil fuel burned and change of huge areas of forest to farmland has increased tremendously. The convergence of forests into farmlands in order to grow crops and to rear the animals, also referred to as Factory Farming, has resulted in vast volumes of greenhouse gases being released into the atmosphere (Ciwf, n.d.). According to an estimation, food value chains contribute with 19\%-29\% of global Greenhouse gas emissions (Heidenstrøm and Hebrok, 2022).

It is not just emissions of Carbon dioxide that has been a disastrously huge contributing factor to climate change, other gases such as methane and nitrous oxide have also lent a significantly huge hand. It has been estimated that rearing animals or livestock farming tend to produce $65 \%$ and $37 \%$ of the global nitrous oxide and methane emissions, respectively (Ciwf, n.d.). According to the estimation, the greenhouse-gas emissions need to be reduced by at least $80 \%$ by 2050 in developed countries if we want to have a chance at staying below an average temperature rise of over 2 degrees (Ciwf, n.d.).

A significant amount of damage is being done to our climate in order to produce food, and we don't even get to consume all of it. It is reported that approximately one third of the global food production is either wasted or lost in different stages of the food chain (Skopal, 2019), (UN, n.d.a) \& (Schanes et al., 2018), and the biggest portion is caused by private homes (United Nations Environment Programme and of the United Nations, 2014). According to Statista, approximately 931 million tonnes of food is discarded by people every year, and 569 million tonnes of that falls into the category of household waste (Richter, 2021).

To add insult to the injury, it was estimated that in 2020, between 720 and 811 million people around the world faced hunger ( $U N$, n.d.b) and approximately 200 million children below the age of 5 are malnourished (Thakur et al., 2020). It was reported that nearly one in three people in the world did not have access to adequate food in 2020 which is an increase of approximately 320 million people in just 1 year (UN, n.d.b). This is happening even though the global food production has the potential to feed every human being twice the amount necessary (Thakur et al., 2020). The discarded food from Europe and North America alone accounts for $30 \%-50 \%$ of their food supplies, which is enough to feed the worlds hungry three times over (Papargyropoulou et al.,
2014). The second goal of the UN sustainability goals addresses this issue and states the agenda for 2030 as "End hunger, achieve food security and improved nutrition and promote sustainable agriculture" (UNDP, n.d.) which, as current projections show, will likely not be met (UN, n.d.b).

So, on one hand, we have observed a tremendous amount of damage being done to our climate so that we can produce this vast amount of food and on the other hand, while people are going hungry and are terribly malnourished, we are wasting one third of the total food that is being produced.

Relating to the World hunger issues highlighted by UN and food waste problems raised by UN as well as several researchers (Skopal, 2019), (Block et al., 2016), (Von Kameke and Fischer, 2018), (Schanes et al., 2018), \& (Heidenstrøm and Hebrok, 2022), we can see that food waste is a problematic issue which has been addressed to some extent but needs to be explored further.

In the past years, digital interventions to reduce food waste have emerged. Numerous food-related applications have surfaced that aim to save leftover food from restaurants, aim to keep track of one's purchases, and numerous recipe apps to help one choose a good recipe to cook based on the leftover ingredients that the user might have (Team, 2021). Based on the reviews in the App Store for applications that actively tried to prevent food waste in households, such as, Nosh, Nowaste, olio, and kitche (Apple, 2022) have not gained the traction needed to contribute positively to household food waste reduction. There are many digital applications available in the market that aims to address the food waste issues, but the food waste in still a very big problem. The digital progress has the potential to create a sustainable future regarding food consumption (Thakur et al., 2020).

With this in mind, we intend to provide a positive impact on the issues stated by conducting this thesis.

### 1.1 Aim, Motivation \& Novelty

Keeping in mind the issues stated in the introduction, the aim of this thesis is to make a positive impact on the world with a focus on a more sustainable future by focusing our work on the food waste aspect. More specifically, to explore why food waste occurs in private homes and to create an innovative solution to prevent or minimize the food waste. The motivation for it is that in, Sweden specifically, $70 \%$ of the food waste produced can be traced to consumer households (Skopal, 2019). We hope that by conducting this thesis, we contribute positively to the society by helping to reach (or contribute to achieve) the sustainability goals for 2030 set by the UNDP (n.d.) \& United Nations Environment Programme and of the United Nations (2014).

The novelty of this thesis is that we continue, expand and progress academic research previously only mentioned as future work and or limitations (Schanes et al., 2018) \& (Block et al., 2016) where broader target groups were analysed. In our work, we aim to focus on a smaller target group in a smaller area in order to validate or disprove their findings, as well as to create new academic contributions in the field with a more narrow target group and area as foundation. The targeted area is the western part of Skåne, with focus on Malmö. Sweden is at the forefront regarding both sustainability achievements and digitalization, with proven governmental agendas aiming to be in
the forefront of the digitalization movement (Sundberg, 2019) as well as the multiple sustainability initiatives, such as 'Climate-Smart food in Malmö' which was launched in order to reduce the climate impact of the citys food purchases. The purpose with this initiative was to, among others, reduce food waste for a sustainable future (SISD, 2021). Keeping in mind Malmö's sustainability initiatives and its potential for digitalization, Skåne is arguably suitable for digitally innovative solutions to reduce food waste.

### 1.2 Research Gap \& Problem statement

This section aims to describe the research gap and problems statements that are found based on current research and the societal situation regarding household food waste.

### 1.2.1 Research Gap

As can be understood from the previous sections, one third of the world's food supplies are lost or wasted in developed countries, and this happens at the later stages of the food supply chain (Papargyropoulou et al., 2014) \& (Foley, n.d.). The aim with this thesis is to understand consumer behaviour in relation to food consumption and waste in private homes, since we found that the majority of food waste in Sweden is coming from private households. This will help devise techniques resulting in mindful choices while making decisions about food consumption. By understanding what can be changed by the consumer, in order to prevent food waste, we hope that we will contribute to the prevention and/or reduction of food waste caused by private homes.

Secondly, there is a knowledge gap that has contributed to this high number (Skopal, 2019) and if measures were to be taken to fill this knowledge gap, there is arguably a good chance that this food loss and waste can be prevented. Keeping that in mind, we would like to create awareness about 'best-before dates' for groceries that have already been purchased by households, as it is one of the leading contributors to high food wastage in private homes (Papargyropoulou et al., 2014).

### 1.2.2 Problem statement

The existing issue is that private households are causing $70 \%$ of the total food waste that is being produced, and the existing solutions and strategies are not helping to the extent as might have been expected. The focus with this thesis is to explore food waste in private households in order to ideally prevent food waste altogether, or at the very least, reduce the catastrophic amount of the food waste coming out of private homes.

### 1.3 Objectives

In the first half of the project, the objectives are to analyse and understand the target group, their needs, and daily struggles. This is done in order to see where, in the consumer household food chain, we could make the biggest impact. In this phase, the data that is needed to identify the issues will be collected from relevant people in
the Skåne county. Based on the findings from this phase, the latter half of the project will be dedicated to finding an innovative solution that hopefully will aid in preventing and/or minimizing food waste in private homes. The set of objectives included:

- Explore consumer behaviour and shopping patterns.
- Investigate which consumer behaviours are causing most food waste.
- Investigate if lack of knowledge is a contributing factor to household food waste.
- Propose a solution that addresses how to prevent and/or reduce food waste.
- Investigate if a solution based on the results of the thesis is approachable and usable.

The final objective with the thesis is to answer our research questions and to contribute positively for a more sustainable society.

### 1.4 Research Questions

The primary research question is:
RQ 1: What are the factors contributing to high food waste in private households in Skåne county?

The secondary research questions are:

- RQ 2: How can food waste be reduced and/or prevented from the standpoint of private households?
- RQ 3: How can innovations based on consumer behaviour aid in preventing food waste in private households?
- RQ 4: Is the lack of knowledge regarding 'edibility assessment' or 'leftover management' affecting the consumption behaviours and how?


### 1.5 Thesis outline

This thesis contains 7 chapters that aim to answer the research questions stated in section 1.4 as well as provide the novelty stated in section 1.1 in the introduction chapter. Following the introduction chapter is the background chapter, where general and technology background to the topic is explained and related work regarding this topic is described and summarized. In the third chapter, the research approach and methodologies used in this thesis are stated and argued for. The fourth chapter is where we go into detail regarding the results of the different methods used in the thesis. The 5th chapter showcases the discussion, where the findings are discussed in relation to the previous sections of the thesis. Chapter 6 is consisted of our design approach to the hypothesis stated in Chapter 5, The final chapter will clearly state the answers to our research
questions and will have our final conclusions based on the work conducted, with additional comments on possible future work regarding the researched topic. Additionally, a comprehensive reference list and appendix can be found at the end of this paper. Our thesis outline is illustrated in figure 1.1.


Figure 1.1: Thesis outline

## Chapter 2

## Background

This chapter of the thesis aims to provide information regarding the relevant and related topics. The chapter will conclude with our related work section.

As soon as any food surplus transitions into being unfit for human consumption, it turns into 'food waste' (Papargyropoulou et al., 2014). More than one third of all food produced tends to be wasted while moving through different phases of production to consumption, and private households stand for the largest food waste faction. In Sweden, this faction represents $70 \%$ of the total food waste, which is mainly influenced by lack of planning and knowledge (Skopal, 2019).

Food waste is not just a new, compelling research area for social related sciences. Food waste can be traced back centuries. Historically, food waste has gone through many cultural positioning and transitioned based on the corresponding era's social needs (Evans et al., 2012). An early example of a food waste prevention measure came from a cookbook published by Isabella Beeton in 1861, where she highlighted the need for careful conservation and storage of food once it had entered a household (Evans et al., 2012). Surely, the aim for highlighting that in Evans et al. (2012) could be different from the reasons we have today to avoid household food waste as an ethical action and as a mean to reach the UN sustainability goals (UNDP, n.d.). In 1918, a famous poster appeared in the USA with the slogan "Food is Ammunition. Don't waste it." (Evans et al., 2012). Subsequently, during the second world war, British propaganda posters urged kitchens to save scraps of meat instead of throwing them away due to the food insecurity (Evans et al., 2012).

As stated, the food waste topic has been relevant for centuries, yet is still changing and under research. The social contexts of certain time periods and situations have historically highly affected the relevance and need for continuous research regarding the topic. Today, the need to follow the UN sustainability goals are undisputable. If looking at the current global situation regarding food waste and the societal situation, it appears that we are re-living 1918. The difference today is that, as stated in the introduction chapter, that we are living in a world where innovation and technology are tremendously increasing and progressing with almost endless possibilities.

In order to clarify and get some understanding of what the food waste research, societal situation and current countermeasures are, the following sections of this chapter aims to provide theories, technologies and how food waste issues are related to other societal issues, factors and innovations, and to describe and provide a solid foundation for understanding the work conducted in this thesis.

### 2.1 The Food Waste Hierarchy

The waste hierarchy was defined in European legislation in the Community Strategy for Waste Management in 1989 and has been adopted worldwide as the principal waste management framework (Papargyropoulou et al., 2014). The goal with this framework is to identify the best possible option that can deliver the best overall environmental outcome. According to this Hierarchy, the best possible option is 'Prevention' of any food waste and the least favourable option is 'disposal' (Papargyropoulou et al., 2014).


Figure 2.1: EU Food Waste Hierarchy (Papargyropoulou et al., 2014)

Multiple articles and papers have analysed the food waste hierarchy from different perspectives. According to Giordano et al. (2020), who have made a comparative analysis of the food waste hierarchy in a French and Italian legislative, highlighted that only a small part of the total food waste was being produced at supermarkets. That led to their conclusion that food waste reduction measures should have been directed towards socio-economic and environmental impact research that verified the countries legislative measures towards preventing food waste. Furthermore, Giordano et al. (2020) highlighted that further research towards tackling and assessing the impact of policy measure against food waste in the different steps of the food waste hierarchy were needed.

It is proved in Luthfina and Kirana Rukmayuninda (2020) that the hierarchy can,
and should, be used to formulate strategies to manage food waste at the household level. Additionally, Kowalski et al. (2021) highlights the importance of the food waste hierarchy by providing data and an updated approach for the food waste hierarchy based on meat consumption in Poland.

### 2.2 Food Waste Definitions \& Stages

A distinction can be made here between avoidable and unavoidable food waste in order to find the appropriate ways to manage food waste(Papargyropoulou et al., 2014):

- Avoidable food waste; edible food is the focus here that could have been consumed, but instead it was disposed of, regardless of reason (Edjabou et al., 2016). It is further categorized into two types:

Avoidable processed food waste that refers to food items that were cooked, prepared or served in the home (Edjabou et al., 2016).

Avoidable unprocessed food waste refers to food items that were disposed of without being cooked, prepared or served (Edjabou et al., 2016).

- Unavoidable food waste refers to food that is not edible under normal circumstances, for example, apple cores, eggshells, bones, etc (Edjabou et al., 2016).

Another important factor in studying food waste is understanding the differences and variations between waste generation across different stages in the food supply chain that is primarily influenced by region (Gustavsson et al., 2011). In low income regions, which include Africa, Asia, and Latin America, the majority of food loss happens early in the supply chain (Papargyropoulou et al., 2014) \& (Foley, n.d.). As most food is lost at production, post harvest and processing stages in the food supply chain (Papargyropoulou et al., 2014), food loss is not greatly influenced by individual behaviour of final consumers (Schmidt, 2016). The food loss could be due to many factors, including poor infrastructure, lack of proper transportation, and lack of refrigeration (Gustavsson et al., 2011). On the other hand, in high income countries, which include our research area, Europe, and also, USA, Canada, and Australia, most food waste happens later in the supply chain, which includes grocery stores, restaurants, and private households (Gustavsson et al., 2011) \& (Foley, n.d.) and is closely related to behavioural issues (Papargyropoulou et al., 2014). Such food waste could be caused by any of the following factors (Gustavsson et al., 2011):

- Food failing to meet the high quality standards, for example, discoloured or disfigured vegetables.
- Poor environmental conditions during display of vegetables and fruits, either being too hot or too cold. This can result in an amount of food waste.
- Lack of planning.
- High focus on 'Best-before-dates'.
- High amount of leftovers from processed foods.

Many studies have been conducted to analyse food waste across different stages of food supply chain, and it is argued that there are major knowledge gaps regarding food waste and loss and around half of all grown food is lost or wasted through different stages of food supply chain. Food loses and waste are higher in developed countries which include North America and Europe, where $30 \%-50 \%$ of food supplies are discarded, which is enough to feed the world's hungry three times over (Papargyropoulou et al., 2014).

### 2.3 Food Waste \& Sustainability

The impacts of food waste are plenty and could be divided into many categories and subcategories. For the purpose of this thesis, the food waste impacts are presented in three sections, Social, Environmental and Economical, correlating with the UN sustainability goals.

The social impacts of food waste, are more commonly referred to as food security within the field (Thakur et al., 2020). According to studies cited by Thakur et al. (2020), the global food production have the potential to feed every human being twice the amount necessary, and still approximately 200 million children below the age of 5 are malnourished. According to Thakur et al. (2020) this is due to the food wastage has taken over with an estimation of $18 \%$ of the total food produced being wasted every year.

The correlation between food waste and the environment is undisputable, with 1.3 billion tonnes of the global food supply wasted every year, which accounts for one third of the food produced (Conrad and Blackstone, 2021). Additionally, the production of food utilizes many resources, such as, land, water and energy, and therefore have a great impact on the environment (United Nations Environment Programme and of the United Nations, 2014). According to the Food and Agriculture Organization of the United Nations (FAO), the carbon footprint of food waste generates approximately 3.3 billion tons of greenhouse gas every year (Thakur et al., 2020). Additionally, the wasted food that is produced covers almost $30 \%$ ( 1.4 billion hectares) of the agricultural lands globally (Thakur et al., 2020).

The economic impact of food waste is affected in every level of the food waste hierarchy (Papargyropoulou et al., 2014) \& (Thakur et al., 2020). The economic impact of food waste results in the rise of food prices, which, in turn, worsens the situation for the most vulnerable people. This is mainly due to food wastage resulting in higher food prices due to the wasted food, the maintenance of landfills used, transportation costs and treatment plans (Thakur et al., 2020). According to Dimova (2015), the economic impact that leads to a food price incasement are both positive and negative. As per Dimova (2015), the positive impacts are:

> - "Rising food prices are likely to alleviate poverty and inequality in areas where poor people are net food producers (produce more food than they consume)."

- "Rising food prices are likely to be welfare-enhancing in areas where women are farmers, because female spending patterns tend to be more child-friendly."
- "When rising food prices stimulate food production, they may generate new jobs (and related income) that can improve welfare."
- "The urban middle class relies on non-agricultural employment for its livelihood, and so is likely to be more affected by rising food prices than the poorest population segments."

The negative impacts, according to Dimova (2015), are:

- "Rising food prices can exacerbate poverty and inequality when the poor are net food consumers (consume more food than they produce) and there are few nonfarm jobs."
- "The welfare implications of rising food prices are ambiguouseven if women are farmers-if complementary resources for crop commercialization are scarce."
- "Analyses often disregard the possibility of behavioural changes in response to price shocks, e.g., substituting less expensive foods for more expensive ones."
- "Rising food prices can exacerbate poverty in the long term when domestic institutional constraints, the international agricultural trade environment, and weather and climate conditions constrain the use of modern high-yielding farming techniques."

According to the sources cited above, food waste has a significant negative economical, environmental and social impact (Conrad and Blackstone, 2021), (United Nations Environment Programme and of the United Nations, 2014), \& (Thakur et al., 2020). Fortunately, the food waste topic is not overlooked and several agendas and attempts to tackle the issues have been made and are still ongoing (Reynolds et al., 2019), (Thakur et al., 2020), (Team, 2021), \& (Skopal, 2019).

### 2.4 Related Technologies

Since the outbreak of the COVID-19 pandemic, the online grocery shopping market has seen a significant increase regarding users and sales across its numerous platforms (Shen et al., 2022). According to Grandviewresearch (n.d.), the online grocery market size globally is expected to have a compound annual growth rate of $25.3 \%$ from 2022 to 2030. The Food Industry Association, quoted by Shen et al. (2022) states that more than twice the percent of monthly online shoppers has been observed in the online grocery shopping services after the pandemic outbreak than before (2019). In the Nordic countries according to Singh (2021), as a result of the COVID-19 pandemic, $65 \%$ of the grocery companies in Denmark saw a $10 \%$ growth in online grocery sales during March 2021. In Sweden, the study showed that almost $29 \%$ shopped groceries online for the first time after the arrival of the COVID-19 pandemic. In the Skåne county, the biggest online grocery stores are Mathem (Mathem, n.d.) and Ica (ICA, 2022) according to Singh (2021), \& Icagruppen (n.d.).

In Sweden, the biggest grocery retailers are Ica gruppen with $52.5 \%$ market share and Axfood (with the main grocery retail chain Willys) with $18.9 \%$ according to

Statista (2022). As told by Skapare (n.d.), Ica has been providing an online grocery shopping service since 2015. Together with Mathem (n.d.), they are the main online grocery shopping stores in Sweden. It is claimed by Mathem (n.d.) that they have a $35 \%$ market share and conduct solely their business online. Ica and Axfood have a combined market share of $71.4 \%$ of the entire grocery shopping market (both online and physical stores). Ica and Willys provides at store pickup and home deliveries (ICA, 2022) \& (Willys, 2022), whilst Mathem (n.d.) only provides home deliveries. The three stores have apps available for smartphone use.

Regarding the food waste issues being addressed in this thesis, a market research was conducted in order to identify existing solutions that address food waste in private homes. It is important to note here that any solutions targeting restaurants, grocery stores and the likes are considered to be out of scope for this project and have not been discussed here. The following section shows our findings (Team, 2021):

- Nowaste is an application designed to prevent food waste in private homes. The users can scan receipts and barcodes to log in their shopping and keep inventory of what is in their fridge, freezer, and pantry. The app enables its users to see what they have used and what has gone to waste. This can help formulate future grocery lists. Nowaste (Hjortsballe, n.d.) has, at the time of writing, $4.1 / 5$ stars at the app store (Apple, 2022) with 637 ratings globally.
- olio is a platform where private homes or businesses list their leftovers or unwanted food that is close to or on its expiry date so that people can pick it up and save that food from going to waste. The OLIO (n.d.) application is, at the time of writing, number 14 in the food and drink category in the app store (Apple, 2022) and has $4.9 / 5$ stars in the app store with 26000 ratings globally.
- kitche provides recipes based on what is available in the kitchen. The aim is to use products before they expire and make use of what one already has at hand. Kitche (2022) is, at the time of writing, number 152 in the food and drink category in the app store (Apple, 2022) and has $3.7 / 5$ stars in the app store with 52 ratings globally.
- Nosh is an AI-based application that focuses on tracking the food availability at a private home, best before dates and expiry dates. The application suggests weekly shopping lists based on the buying and wasting habits. Nosh.tech (n.d.) application has, at the time of writing, 3.8/5 stars at the app store (Apple, 2022) with 26 ratings globally.

Despite finding applications that address the food waste problems, we did not find enough evidence that these applications actually achieved their described intentions due to the number of ratings. The only application that seems to have some sort of traction, based on the market research conducted by Team (2021), is OLIO (n.d.).

### 2.5 Related Literature

In this section, relevant academic literature related to the work conducted in this thesis will be described.

Schanes, Dobernig and Gözet (Schanes et al., 2018) have conducted a systematic review of household food waste practices and their policy implications. In their paper, they reviewed 60 peer-reviewed academic articles and journals on food waste in consumer households, with a focus on Europe. Notably, Schanes et al. (2018) talks about different stages of consumer household's food waste shown in Figure 2.2;


Figure 2.2: Food-related practices (Schanes et al., 2018)
Planning - What factors are being taken into consideration when planning for grocery shopping?
Talking about planning, Schanes et al. (2018) stress that awareness about food items at home are crucial when shopping in order to avoid purchasing unnecessary items. They have also found that communication between family members helps to prevent possible double purchases of the same item. Furthermore, the findings in the paper entails that consumers who are busy with commitments, such as work and/or leisure time tends to not look into what food items are at home, thus are more prone to purchase something that is already at home. To avoid planning issues, some planning strategies are mentioned, these include, compiling meal-plans in advance or checking inventories before grocery shopping, and using shopping lists. The use of shopping lists are argued to reduce household food waste by approximately $20 \%$ per capita. The use of meal plans are disputed among researchers, where some suggest that meal planning results in less food waste and others have not found a satisfactory correlation between planning and
food waste. Yet, Schanes et al. (2018) states that "... stronger planning routines are related to lower reporting of buying unplanned items and big packages".

## Shopping - Consumer Behaviours when they are actually in a grocery store.

Regarding shopping, Schanes et al. (2018) identifies over provisioning as one of the most prominent causes leading to a food surplus. The main reasons include, "the good provider identity", difference in taste, the compensation effect, time constraints, bulk purchases and oversized packaging. The good provider identity refers to the desire to be a good parent, provider and/or caretaker. The characteristics being that the shopper wish to provide an abundance of food as well as serve "proper" meals in order to convey love and affection to their family. Proper meals are usually associated with nutritious and healthy meals. Schanes et al. (2018) clarifies "the good provider identity" that buying proper food does not directly result in consumption but to an abundance of food that are of risk of becoming food waste. The compensation effect refers to the notion that when people eat unhealthy, they tend to overcompensate by buying an abundance of healthy food in order to mitigate the feeling of guilt, thus having more perishable food. The perceived availability of time, can also result in over provisioning, the reasons being that it is seen to reduce stress and are time saving but have the tendency to result in an abundance of food that are not possible to eat in a timely manner (Schanes et al., 2018).

Other reasons that shopping is a huge factor regarding household food waste is the different in store offers, such as "buy one, get one for free" and the oversized packaging. Yet, this is still disputed, because households who are more economically aware when buying groceries are less prone to waste food, than households who tend to spend more money on food. Schanes et al. (2018) also explored the type of stores where consumers buy food and the shopping frequency. The study highlights that household food waste is higher when consumers buy exclusively from major supermarket chains. It also highlights that consumers who buy more frequently tends to have less food waste.

## Storing - The mindset around storing the food that have just been bought.

When it comes to the storing part of their different stages of consumer household food waste, Schanes et al. (2018) states that systematically storing and categorizing according to a system, like the frequency of how often a certain item is used or organizing by the age of a product, tends to decrease food waste.

## Cooking - Planning behind what and how much to cook.

The cooking part related to household food waste in Schanes et al. (2018) literature review highlights several aspects. The most promising way to decrease household food waste in this stage is to cook more frequently, which in turn leads to enhanced cooking skills, amongst them, more precise portion control. This is argued to be one of the most prominent ways to avoid cooking too much food. Another prominent way to avoid food waste in the cooking stage is to cook what you already know how to cook. In this section, Schanes et al. (2018) states that consumers who rely on ready-made meals and restaurant take out waste more food than those who do not.

## Eating - Eating patterns.

Eating has not been explored as extensively as the other stages of the consumer house-
hold food waste. However, it is stated that people who spend more money eating at restaurants tends to waste more and have lower levels of food waste guilt. Regarding eating at restaurants, it tends to be a spontaneous decision affected by seeming time saving and more convenient, yet the result is that purchased food and/or leftovers are spoiled (Schanes et al., 2018).

## Managing leftovers - How the leftovers are stored, reused or disposed of?

Reusing leftovers is regarded as a good strategy to avoid household food waste based on its time, labour, and money saving characteristics. The problem with leftovers is the assessment of durability of the leftovers, accompanied by the conflicting interests of the good provider identity. Additionally, leftovers are more keen to be misplaced, forgotten and stored too long (Schanes et al., 2018).

## Assessing edibility - How do people assess if the food is still edible at different stages of the whole process, and what are the focal points?

In order to assess whether food or groceries are edible, people tend to use multiple strategies, such as, smelling, looking, touching and best before dates. It is concluded that people who tend to assess food by their own senses have less food waste than people who don't. Furthermore, it is also highlighted that this people tend to be conflicted between not wanting to throw away food and not wanting to get ill (Schanes et al., 2018).

In their paper, they also discussed key leverage points for household food waste preventions and defined 3 categories; policy initiatives, business, and retailer solutions as well as mobile applications. In their conclusion, Schanes et al. (2018) states that overall research regarding consumer household food waste is progressing well. However, they also highlight that it is noticeable that households often have ambivalent attitudes towards waste prevention and face conflicts between contradictory desires, aims, and anxieties. They also highlight that social, economic, and cultural structure may prevent less wasteful structures. In their concluding statements, they plea for research that goes beyond investigating attitudes towards food waste, and adopts a social practice that potentially sheds light on daily routines and practices that underlie the household food waste.

Block et al. (2016) have explored food waste at each stage of the consumer decisionmaking process. In their paper, the focus is food waste that occurs across what they call the squander sequence. The 'squander sequence' describes waste that occurs from consumer behaviours at the preacquisition, acquisition, consumption, and disposition stages of food waste. In figure 2.3; The 'Squander Sequence' is depicted in its relation to the other parts of the food consumption stages defined (Block et al., 2016). In the study, psychology and marketing has been identified to play a significant role in the consumer household food waste investigation. To investigate this, the four themes or categories shown in 2.3; were analysed. The retail point of sale/consumer preacquisition represented the point-of-sale environment where producers and consumers met. It was at this stage that marketing strategies influence consumers the most. It was argued here that marketers were pursuing operational efficiencies to reduce food waste, whilst at the same time encouraging consumers to spend more, which in turn contributed to food waste.


Figure 2.3: The Squander Sequence (Block et al., 2016)

In the consumer acquisition stage, planning and shopping were argued to be the key factors. Regarding the planning part, Block et al. (2016) stated that "Consumers were notoriously poor planners, with extant literature showing, for example, that individuals often misestimate inventory at home, in turn leading them to over purchase food that they already have on hand". Also, it was argued that consumers often tended to underestimate how much time was needed to complete the task, which consequently led to less mindful purchases. Additionally, consumers displayed a general optimistic bias which led to an overestimation of the useful life of purchased perishable items, especially fresh products in the grocery stores. In the shopping part of the acquisition stage, biases were likely to influence decision-making in a shopping context. Groceries based on appearance compared to long-term outcomes of purchases were more likely to be regarded in this stage. This was further showcased by the retailer's deliberate highlighting of the more appealing groceries in contrast to the less appealing groceries (Block et al., 2016).

Furthermore, value pricing and bulk packaging were also highlighted to be a driving factor of overacquisition. Block et al. (2016) argued that larger brought higher value in this stage, as a consequence of grocery store promotional strategy. The third stage of The Squander sequence is the consumption stage. This stage is defined by the consumer's decisions to what groceries are to be prepared, eaten and/or served. In this stage, more context driven choices are being regarded by the consumer. When consumers regarded what food was to be used, food that was most recently purchased was likely to be more accessible. Therefore, more likely to be selected for consumption, especially when purchased offline, as a distinction from online purchases. At this point, the reliance on best before dates or expiration dates heavily influenced the food waste that was being produced. Additionally, the consumer's emotionally driven decisions were highlighted here, such as the "disgust" for "expired" food, rather than the cognitive assessments. In the last stage of the squander sequence, disposition are being discussed. Block et al. (2016) highlights that it resembled the consumption stage findings with its emotions, heuristics, and biases.

To conclude, Block et al. (2016) stated that the psychological drivers that affected food waste in their proposed squander sequence was an essential part of understanding how we might collectively work toward reducing food waste. Furthermore, they highlighted that they anticipated more research to be conducted in order to analyse the different conceptual lenses presented in figure 2.3.

Von Kameke and Fischer (2018) have explored nudging in their paper, which is their reduction approach to one of the stages of the consumer household food waste stages described by Schanes et al. (2018) and Block et al. (2016), i.e., shopping. In the paper, Von Kameke and Fischer (2018) defines nudging as any aspect of the choice architecture that alters people's behaviour in a predictable way without forbidding any options or significantly changing their economic incentive. To clarify nudges in relation to food waste, Kameke and Fischer states that nudges should be "transparent, easy to avoid and may not restrict other options". The aim of the paper was to merge two underexplored research strands in order to show the potentials of preventing household food waste via nudging; the role of planning behaviours in preventing domestic food waste through nudging and to predict potential effectiveness of nudging by focusing on consumer perceptions and evaluations.

In their study, attitudes, shopping routines, barriers of purchase planning, rating of nudging proposals and demographic background were analysed. In their result, section Von Kameke and Fischer (2018) states that most participants find it important to avoid household food waste, whilst many of their study participants want to increase their measures for household food waste. In their study, they also highlight the difference between shoppers who buy their groceries at "organic grocery shops" and "discount shops", where organic grocery shoppers shows greater concerns for consumer household food waste.

Regarding nudging, the younger participants of the study, aged 18-37, tended to response better to the nudging approach than the other participants 38-75. In their discussion, Von Kameke and Fischer (2018) states that nudging has a potential to contribute to the reduction of food waste. However, they also state that it needs to be considered that some nudges are more difficult o implement than others and special attention should be paid to meal planning and due to it being the greatest challenge for the participant group 18-75. To conclude, they suggest that nudging can be a suitable approach to modify and impact grocery shopping behaviours in order to prevent food waste.

Chu et al. (2010) in their paper, have made an empirical analysis of shopping behaviour across online and offline channels for grocery products. The research explores brand loyalty, size loyalty and price sensitivity across households that shops interchangeably through both online and offline stores. In their study they found that households are more brand loyal, size loyal and less price sensitive through online shopping regarding grocery shopping. In their conclusion, they confirm that the online grocery shopping is an extension too of the physical stores. According to their results it is because when households adopt online grocery shopping, they will likely use the online stores as a supplementary channel, thus being less price sensitive, however, still being brand loyal and size loyal. The final conclusion of the study highlights that consumer behaviours in online stores are not an imitation of the physical grocery stores. The online stores need to better cater to the consumer's online behaviour.

Anshu et al. (2022) in their paper, explores the impact of customer experience on attitudes and repurchase intentions in online grocery retailing. Their study argues for that that online grocery shopping has given the consumer the opportunity to buy groceries at their own convenience and discretion, thus validating that the critical dimension for
appraising customer experiences for business purposes. Online shopping is perceived positively by the customer because it saves time and provides the convenience of shopping anytime and anywhere. Furthermore, the study indicates that product experience did not impact customers attitudes. The process of decision-making regarding grocery shopping is regarded as a low involvement activity which does not require low information regarding search and evaluate decisions. Additionally, Anshu et al. (2022) highlights that home delivery services are of importance regarding the ability to chose date and time of delivery as well as the service quality, whilst also indicating that the ability to specify dates are of importance to the grocery shoppers. Their study also showed that $80 \%$ of customers purchased groceries online due to the convenience and not the price, whilst highlighting that the profitability for online retailers for having a good customer service.

Heidenstrøm and Hebrok (2022) have explored the sustainability potential with digital food provisioning platforms through an ethnographic interview based study on Norwegian households who utilizes meal box schemes and online grocery shopping. In their research, it is stated that online grocery shopping shifts the "in store" planning to "at home planning" and thus reduces o food waste in households due to the reevaluation of what is actually needed for food consumption at home. However, it is also stated that groceries bought online are more likely to be wasted than those bought in-store because online purchases decrease the experience of emotional ownership.

Regarding the meal box schemes, Heidenstrøm and Hebrok (2022) found that it required significant work from the consumer in order to become a more convenient alternative to purchasing and cooking food. This is because: "Consumers balance between cooking rules and improvisation, between planning and organizing for flexibility, assembling meals from different sources (the meal box and other products), and handling normative food issues". However, it is also stated that once the meal box scheme is integrated within the consumer's daily routines, it decreases food waste in consumer households. In the research, 20 interviews were conducted and showed that the reason for using online grocery stores or meal box schemes were not environmentally conscious choices amongst the consumers, but rather a convenience measure. The driven factors for this are stated to be convenience, saving time and money, and reducing the mental load of organizing proper meals.

To conclude their study, Heidenstrøm and Hebrok (2022) argues that online grocery stores should focus on convenience, utilize co design to align scripts with the customer's needs, focus on consumer practices and recommends that in a short term perspective, upscale online food services to mimic the physical store practices.

Ilyuk (2018) have explored in her paper how online and in-store grocery purchase channels affect consumer food waste. Similar to Heidenstrøm and Hebrok (2022), Ilyuk (2018) argues that online grocery shopping reduces stress and effort, i.e., aiding positively in the planning and shopping stage of food waste. In this research, three experiments were conducted where she investigated waste intentions based on whether the item were purchased online or not. In the experiments, there were no significant difference between products purchased online or in-store when it came to pre-packed groceries. Moreover, the psychological ownership remains almost the same between online purchased items when some effort has been put into comparing and choosing
the right item, and in-store purchased items. Psychological ownership refers to how attached a person is to an item, thus affecting the intention to waste. Furthermore, it is stated that the online grocery shopping is in its infant stage and is yet to show its full impact on food waste.

Sarkovska and Chytkova (2019) have in their thesis explored the benefits and pitfalls of online grocery shopping as perceived by the consumers based on evidence from the Czech Republic. In their research, it is stated that consumer behaviour differs tremendously between online and offline shopping. The main differences argued for is that online shoppers' behaviour are influenced by time efficiency and savings, thus, tends to spend less time comparing different products and it's prices. Offline shoppers tend to not be influenced by time efficiency and savings, thus spends more time comparing and analysing different products. To conclude their thesis, Sarkovska and Chytkova (2019) argue that online shopping is more efficient, time saving and economically beneficial than offline shopping. The efficiency is primarily reached by utilizing different functions in online stores, such as "My Favourites" that allows customers to shop based on their recent or most purchased groceries. The economically beneficial aspect of online shopping is that you buy the things you need and not what you might want, as contrary to offline stores.

### 2.5.1 Summary

In the above section, different aspects related to this thesis were described. All chosen related literature for this thesis touches on the topic of food waste and its prevention in different aspects and are summarized below:

- The findings from Schanes et al. (2018) clearly highlights that food waste is an academically viable topic due to the amount of academic publishings, yet pleads for a more social practice approach where daily routines and practices are investigated.
- Block et al. (2016) have created and explored food waste through their term "The Squander Sequence", which includes Point of sale/Preacqusition, Consumer Acquisition, Consumption, and Disposition.
- Von Kameke and Fischer (2018) shows in their paper that "organic shoppers" are more conscious regarding food waste than "discount shoppers" and propose that nudging is a suitable approach to impact food waste from the shopping stage as defined by Schanes et al. (2018).
- Chu et al. (2010) shows the differences in online vs offline behaviours regarding shopping behaviours regarding consumer household's shopping behaviour. In their study they found that online shoppers are more brand loyal, more size loyal and less price sensitive than physical store costumers.
- Anshu et al. (2022) shows the importance of the costumers experience whilst shopping online for groceries. They also highlighted that online grocery shopping saves time and is perceived as time saving from the consumer perspective.
- Heidenstrøm and Hebrok (2022) summarized Norwegian online grocery store shopping and meal box schemes behaviours from the customer perspective to provide insights on how to have more sustainable food consumption practices.
- Ilyuk (2018) conducted three experiments comparing online grocery shopping and in-store grocery shopping based on food waste intentions. The research showed that when effort is put into the shopping, there is no significant differences between the two channels.
- Sarkovska and Chytkova (2019) researched the difference between online and offline purchases in the Czech Republic. They concluded that online shopping is more efficient, time saving and economically viable than offline shopping.


## Chapter 3

## Methodology

In this chapter, the choice of research paradigm, research strategy as well as the research methods used to conduct this thesis will be presented.

### 3.1 Research Paradigm

Given the research purpose of exploring why we tend to have a high amount of food waste in private homes and to identify ways and probably develop guidelines on how to reduce this food waste, this project is conducted using an Interpretivist research paradigm. This approach focuses on interpreting deeper meaning in conversations and aids in understanding multiple realities that might be present in a collection of personal narratives (Guest et al., 2012), in contrast to a Positivist approach which focuses on considering strict facts without being influenced by interpretations or bias (Alharahsheh and Pius, 2020).

### 3.2 Research Strategy

Research strategy is different from research methods, and it needs to be decided upon by the researchers in order to successfully complete a project (Denscombe, 2014). It outlines a plan that is designed to achieve a specific goal. Some factors need to be considered to ensure the right choice of research strategy:

- Suitability, it needs to be determined if the chosen strategy will produce the required results.
- Feasibility, if the study can be conducted with keeping resource constrains in mind.
- Ethics refer to ethical dealings with the respondents which includes, among others, interviewee's consent, avoiding any harm to the respondents, and guarantee for confidentiality.

Before deciding on a research strategy, multiple options were considered. The most promising alternative method considered was Action research. Action research derives from 1940s \& 1950s wartime nurses, where they tried different healing methods on different patients due to hectic situation. Today, action research is a popular methodology
within computer science research and is characterized by an iterative plan-act-reflect cycle (Oates, 2005). The benefits of using action research is that it allows the use of multiple data generation methods as multiple kinds of data. The reasons for not choosing this method is that we believed that it could potentially lead to us being stuck in the iterative plan-act-reflect cycle without going further.

### 3.2.1 Surveys

The research strategy chosen for this project is Surveys as, according to Denscombe (2014), surveys is a suitable approach while exploring something comprehensively and in detail. Surveys are considered to be a good source to measure and categorize 'Attitudes' which can help with discovering important issues to address (Rohrer, 2014). This was considered to be the suitable approach of this study, as we were aiming to understand and categorize the practices that are contributing to high food waste in private homes in the Skåne county. The following key characteristics for surveys had been used as foundation when narrowing down this approach as being the suitable as well as the feasible choice for the research strategy:

- Empirical research, refers to purposefully finding the required information from relevant people (Denscombe, 2014). We aimed to approach private homes in order to find out what contributes to the food waste in their homes. What the general practices were in regard to buying, preparing and consuming food on a regular basis.
- At a specific point in time, entails that the generated insights give an overview of how things are, instead of tracing events over a period of time (Denscombe, 2014). As our research was planned to be conducted in a specified time window to ensure that we met the deadline for the thesis, this choice certainly was the most feasible one.
- Wide and Inclusive coverage, is usually associated with quantitative data and statistical analysis (Denscombe , 2014) and is being utilized to gather complementary data through an online questionnaire in the later stages of the project.
- Detailed Scrutiny, refers to 'close inspection' of the target group in order to look at things 'in detail'. These types of surveys are usually conducted by using a few participants and are associated with qualitative data and exploration (Denscombe, 2014). This is in line with the goal of this study, as our intention is to closely inspect a small number of private homes in order to explore habits around food waste.

Once the strategy had been finalized, the next stage included narrowing down the type of survey that we wanted to conduct. Surveys are divided into different types based on the technology that is used to communicate with the participants. We chose to use a combination of the types 'Face to face' and 'Telephone' (Denscombe, 2014) in the form of virtual meetings via zoom. This decision was made based on the following factors:

- It allowed us to include people from various geographical locations.
- As we were trying to be as time conscious as possible, planning such meetings was a suitable alternative.
- It also facilitated our need to have a face-to-face contact with our respondents in order to informally assess the validity of the responses as well as provide clarifications in cases of uncertainties.


### 3.3 Data Collection

Surveys can be conducted by using both qualitative and quantitative methods. As a result, both approaches were discussed thoroughly before making the final choice. While quantitative data collection methods can be used to reach a larger population in limited time, they can be biased and can reflect the researcher's way of seeing things rather than the respondent's (Denscombe, 2014). As we were aiming to explore attitudes towards food waste in private homes by having relatively open discussions and without imposing our own thoughts and understandings on the respondents, we drew inspiration from the matrix presented in 3.1. We placed ourselves in the lower left quadrant where we were collecting qualitative data through direct means, i.e., Semi-Structured interviews, to gain insight towards attitudes regarding food waste in Private homes. In contrast to Structured and Open interviews, Semi-structured interviews tend to be flexible and open, with more emphasis on the respondents discussing point of interests whilst keeping some structure in place to depend on (Merriam and Tisdell, 2015) \& (Denscombe, 2014).


Figure 3.1: Question answered by research methods across the landscape (Rohrer, 2014)
We have also taken inspiration from Figure 3.2 which showcases the main steps of qualitative research. We started by identifying general research questions in the begin-
ning of the process, which guides the way for selecting relevant site(s) and subjects. Collection of the relevant data comprises the next step, which is primarily done by qualitative data collection methods. Then the collected data is prepared, analysed using a thematic analysis and interpreted. After the initial interpretation and analysis, the research questions are reevaluated, and further complimentary data is collected through quantitative data collection methods i.e., online questionnaire. Both quantitative and qualitative data are analysed, and the gathered results and drawn conclusions are presented in the final sections of the paper.


Figure 3.2: Main steps in qualitative research (Graue, 2015)

### 3.3.1 Semi-structured interviews

The intention with conducting the semi-structured interviews was to explore how people plan for their grocery shop visits and also, how they behave when they are in the grocery stores. Moreover, it was also of interest to find out attitudes after the food items after they have been bought and brought home. As per Rabionet (2011), formulation of questions and follow-up probes are a central component when developing interviews, and existing literature and related work tend to be the best resources. To that end, numerous previously published studies, presented in the related work section, were used as an inspiration for the final questions and probes that were included in the interviews. The approach was to loosely divide the interview into sub areas in order to ensure that no point was overlooked, and the whole process was included and followed, from Planning to Managing leftovers.

Before diving into these detailed sub areas, some control questions were asked in order to gain insight into the interviewees' work, financial and living situations. At the end of the interviews, the interviewees' were asked to reflect on major factors contributing to their respective food waste. Some questions were included and some were excluded after interview 6 based on our learnings from the first 6 interviews. Figure 3.3 shows the final layout and order of the semi-structured interviews, as well as what questions were asked from each of the interviewees.

| Focus Areas | ID | Questions | 1-6 | 7-9 | Answer type |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Control Questions | CQ1 | Tell us a little about yourself? | $\checkmark$ | $\checkmark$ | Open |
|  | CQ2 | Who is responsible for grocery shopping? | $\checkmark$ | $\checkmark$ | Open |
|  | CQ3 | Where do you grocery shop? | $\checkmark$ | $\checkmark$ | Open |
|  | CQ4 | How often do you go grocery shopping? | $\checkmark$ | $\checkmark$ | Open |
|  | CQ5 | How digital comfortable are you? | $\checkmark$ | $\checkmark$ | Likert 1-5 |
|  | CQ6 | What comes to mind when you hear the word food waste? Why? | $\checkmark$ | $\checkmark$ | Open |
|  | CQ7 | How important is it for you to avoid household food waste? | $\checkmark$ | $\checkmark$ | Open |
|  | CQ8 | How economically comfortable are you right now? | $\checkmark$ | $\checkmark$ | Likert 1-5 |
| Planning | P1 | How do you plan for shopping? What do you normally do? (Which factors are regarded?) | $\checkmark$ | $\checkmark$ | Open |
|  | P2 | Do you check your pantry/fridge when you are planning? | $\checkmark$ | $\checkmark$ | Open |
|  | P3 | Do you make a meal plan and have a food budget? | $\checkmark$ | $\checkmark$ | Open |
|  | P4 | In general, do you think planning or lack of planning affects food waste? Why? | $\square$ | $\checkmark$ | Open |
|  | P5 | Do you think your planning affects the amount of food being wasted in your home? | $\square$ | $\checkmark$ | Open |
| Shopping | SH1 | Can you describe your routine for your grocery shopping? Walk us through a grocery shopping session. | $\checkmark$ | $\checkmark$ | Open |
|  | SH2 | The "good provider identity", how much do you relate to this? Why? | $\checkmark$ | , | Likert 1-5, Open |
|  | SH3 | Let us discuss any time constraints that you might have. | $\checkmark$ | $\square$ | Open |
|  | SH4 | How do you see Oversize packaging, 3 for 2 items, bulk buys? | $\checkmark$ | $\checkmark$ | Open |
|  | SH5 | Have you ever ordered groceries online? If yes, tell me about that experience. How often? If no, why? | $\square$ | $\checkmark$ | Open |
|  | SH6 | Do you think shopping groceries online have a positive or negative impact on food waste? | $\square$ | $\checkmark$ | Open |
|  | SH7 | What do you think of services like "hello fresh"? | $\square$ | $\checkmark$ | Open |
| Storage | S1 | How do you store groceries? | $\checkmark$ | $\checkmark$ | Open |
|  | S2 | Systematic stacking based on when it was stored? | $\checkmark$ |  | Open |
|  | S3 | Space Constraints, knowledge gaps about where to store stuff. | $\checkmark$ |  | Open |
|  | S4 | How do you store food? Strategies, like meat in the freezer? | $\checkmark$ |  | Open |
| Cooking | C1 | Can you describe your cooking routine? | $\checkmark$ | $\square$ | Open |
|  | C2 | What do you usually cook? For how many? Why? | $\checkmark$ | $\checkmark$ | Open |
|  | C3 | Too much food is usually prepared, portion sizes? | $\checkmark$ | $\square$ | Open |
|  | C4 | What do you regard when cooking for dinner? For example: Plate size, participants, how much they eat? Any other factors? | $\checkmark$ | $\checkmark$ | Open |
|  | C5 | How do you cook? Follow a recipe or more improvised? Does it differ between weekdays and weekends? | $\checkmark$ | $\checkmark$ | Open |
| Eating | E1 | Do you eat as a family together? | $\checkmark$ | $\square$ | Open |
|  | E2 | Would you produce more or less food waste per plate if your children were not eating that day? | $\checkmark$ | $\checkmark$ | Open |
|  | E3 | Do you think eating out affects your food waste at home? How? | $\checkmark$ | $\checkmark$ | Open |
| Managing Leftovers | ML | How do you manage leftovers? Why, how, when, where, and what? | $\checkmark$ | $\square$ | Open |
| Assessing Edibility | AE | How do you assess edibility? Smell, Look, Touch, Best before date, tracking how long it's been opened, other? | $\checkmark$ | $\checkmark$ | Open |
| Ending | EN1 | What do you think is your biggest "food waste" factor? i.e., why do you have food waste? | $\checkmark$ | $\checkmark$ | Open |
|  | EN2 | How can you change that? | $\checkmark$ | $\checkmark$ | Open |
|  | EN3 | How will the change affect your life? | $\checkmark$ | $\checkmark$ | Open |

Figure 3.3: Questions included in Semi-Structured Interviews

## Selection Criteria

Prior to conducting the interviews, it is required to set the inclusion criteria in order to get relevant people for data gathering. For this research project, the focus is on private homes, so that was the natural starting point for setting the inclusion criteria.

During the literature research, it was found that families with children tend to waste more food than households without children (Schanes et al., 2018). Moreover, Von Kameke and Fischer (2018) had an inadequate sample rate in their research where their response rate regarding families with children in comparison to families without, was off. Thus, "nudging" our selection criteria towards families with children. Furthermore, it is reported in Schanes et al. (2018) that consumers who are busy with work are more prone to double buying than people who are not. Based on these findings, the selection criteria was further narrowed to only include families with children at home where both parents are working. The initial intention was to include the whole Öresund region for this study, as people tend to commute between Denmark and Sweden for work. However, after reaching out to our networks spanning the region, we unfortunately only got participants living in Skåne county due to unrelated circumstances. Which is why the scope was narrowed further to include only Skåne county, with a focus on Malmö.

## Sample Technique \& Size

As per Denscombe (2014), before conducting the actual interviews as a data gathering method, it is vital to start thinking about how the potential candidates can be identified and accessed. For the selection of relevant families, we applied the technique called Purposive Sampling, which refers to making a " deliberate choice of a participant due to the qualities the participant possesses." (Etikan et al., 2016). It is further explained as "the researcher decides what needs to be known and sets out to find people who can and are willing to provide the information by virtue of knowledge or experience." (Etikan et al., 2016). We chose this as our sampling technique as we had a clear understanding that we wanted to identify reasons behind food waste in private households, and we were approaching people whose experience from their personal lives could provide useful information regarding that.

Therefore, in the early stages of the project, we started reaching out to people who would be a good fit to the scope of the research, in order to finalize a list of people we could interview later on. The interviewees were selected with the help of personal and professional networks and were contacted via text messages, emails, and phone calls. Once the date and time for the interview was agreed upon, zoom links were sent for the actual meetings.

The aim was to get at least 5 interviews planned to begin with, and then add more if required. Even though it might be a good idea to aim for a higher number to get as many insights as possible, we wanted to start with a lower number and then keep on conducting more interviews until we came to a point where we could feel that we had got a good enough understanding of the factors contributing to high food waste, which would mean that we could move on to the next steps in the process. By the end, we ended up conducting nine semi-structured interviews because data saturation was achieved, and no new data appeared.

## Implementation

It is recommended in Adams et al. (2015) that the interview guide should be reassessed after conducting the first interview because something might need to be modified. A
pilot test can be done in order to refine the guide (Adams et al., 2015). Before conducting the interviews with our final candidates, we did a pilot run on a candidate similar to our target group in order to find out what worked and what didn't. The approach turned out to be a fruitful one because it helped us rephrase as well as rearrange some questions in order to ensure that there was a good flow to the whole interview and that the questions were easily understandable to our interviewees.

For the actual interviews, the interviewers, and the interviewees met in the Zoom meeting room at the previously agreed upon time. The interviewees were kindly asked to have their cameras turned on, as in addition to listening to their responses, we wanted to observe their reactions as well. We had decided beforehand that one of the two interviewers would ask the questions and guide the discussion, while the other would take notes.

After the initial introductions, we started the interviews with the control questions. The second half of the interview was mostly focused on having open discussions about different stages of food in private homes, with the help of questions and probes. During this stage, we employed a technique called Echo, Boomerang, and Columbo which is a productive approach used for interrupting or answering users during research studies (Pernice, 2014). The Echo refers to repeating the last phrase said by the interviewee in a slightly interrogatory tone. It helped us probe the interviewees, but in a benign way without any bias. The Boomerang technique helped us formulate generic questions that originated from interviewees' own initial comments or questions. So instead of answering their questions directly, the questions were bounced back to the interviewees, prompting them to answer. The Columbo techniques advise being smart, but not to act that way. It refers to coaxing interviewees into saying what they think by saying fewer words or by saying just part of the question and trailing off (Pernice, 2014). We used that technique repeatedly during the interviews because we wanted the interviewees to express what they truly think about the issues at hand and not be swayed by us in any way.

The last part prompted interviewees to reflect on the biggest factor that contributed to food waste in their homes. We gathered some good insights which will be presented in the results chapter. All the interviews were recorded with the interviewees' permission to be transcribed later on. In figure 3.4 the data gathering and implementations for both methods are illustrated.


Figure 3.4: Data Gathering and Implementation

### 3.3.2 Questionnaire

After an interpretation of qualitative data, it was evident that some areas were more problematic and interesting than the others. Planning and shopping behaviour were the sub-areas where most variety of answers were received. This made us realize that
we needed to further narrow the scope of the research and collect more data regarding consumer's planning and shopping behaviour. This time, we did not intend to have open discussion that are usually the case with Semi-structured interviews. Based on the discussions that we had already had with our interviewees, we had a few questions in mind, that we were looking to explore further and were aiming to have straightforward answers for, so we opted to conduct a survey through a quick questionnaire. This time around, we placed ourselves in the lower right corner of 3.1 which is a suitable approach for this kind of inquiry, as we were aiming to collect as many responses as possible to explore further as well as validate our findings. As per Denscombe (2014), this kind of mixed-method approach is beneficial if the researchers want to validate their findings from one method by employing another method.

## Design of the questionnaire

There are some principles that need to be followed while constructing a questionnaire (Erzberger et al., 2003), the ones relevant to our project are presented below:

- Make sure that the Questionnaire items match the research objectives.
- Understand the research participants.
- Use natural and familiar language.
- Write items that are simple, clear, and precise.
- Determine when an open-ended or a closed-ended question is needed. develop a questionnaire that is easy for the participants to use.
- Always pilot-test the questionnaire.

The questionnaire was created in Google Forms and an introductory text explaining the purpose with the questionnaire and the required criteria was presented in the beginning. We applied all the above-mentioned principles while designing our questionnaire. We designed a mixed questionnaire as, in addition to closed-ended items, it also contained some items where the response categories were mixed (Erzberger et al., 2003). We had added 'other' at the end of the available options in order to allow the respondents to fill in their answers in their own words. We deliberately made the effort to keep the question simple and straightforward so that is no room for misunderstanding. Even with that effort, we believe that options for SB3 could have been formulated better, as it did not receive the response that was anticipated based on the data collected through the semi-structured interviews. We also tried diligently to keep the language as natural as possible, we wanted our respondents to feel at ease while answering the questionnaire. The questionnaire was tested on two people before it was sent out. It was reported that the language was not clear enough in CQ2 so, it was reformulated before the questionnaire was distributed. The final layout of the questionnaire is presented in figure 3.5.

| Focus areas | ID | Questions | Answer Options |
| :--- | :--- | :--- | :--- |
| Control <br> Questions | CQ1 | Name. | Text. |
|  | CQ2 | I fit the description, "Family living in the <br> Öresund region with children at home <br> where both parents are working". | Yes / No. |
| Shopping <br> behaviour | SB1 | Have you ever shopped for groceries <br> online more than once from big stores, for <br> example, Ica, Mathem, Willys etc. <br> (excluding services like Hello Fresh)? | Yes / No. |
|  | SB2 | If Yes, Please tell us why. | Checkboxes: <br> Convenience. <br> Saving money. <br> Saving time, faster than going to a <br> grocery store. <br> Fun to try new options. <br> Other. |
|  | SB3 | If No, Please tell us why. | Checkboxes: <br> l like to go grocery shopping myself. <br> Afraid that I will get worse groceries than <br> if I picked them myself. <br> Using online platforms is a hassle. <br> It is more expensive. <br> Other. |
| Intention to <br> adopt | IA1 | If No, are you open to adopting this option <br> in the future if you are guaranteed the <br> quality of the fresh products, longest 'best <br> before date' available, etc.? | Yes / No. |

Figure 3.5: Questionnaire

## Sample Criteria and size

Our target group was consisted of families living together with children in Öresund region where both parents were working. In order to avoid getting responses from people who did not fit into these criteria, we asked "if they fit into the defined criteria" in the very beginning, if they answered "No", they were asked to submit the form without going any further into the questionnaire. For the sample size, as this was complimentary data to the main data-collection method i.e., semi-structured interviews, the aim was to gather as many responses as possible in order to help us in validating our findings from the semi-structured interviews. At the time of questionnaire development, the intended target area was Öresund region. But the target area was redefined based on the previously mentioned reasons. And even though, 'Öresund region' was stated as a part of the eligibility criteria in the questionnaire, the questionnaire was only sent out to people through Facebook, personal messages and emails in Skåne, as Skåne is a part of the Öresund region.

## Conduction of the Questionnaire

After the test run, the questionnaire was ready to be sent out. We used our personal Facebook accounts, some Facebook groups focusing on reducing food waste, as well as our personal contacts to spread out the questionnaire. We used text messages, emails, and phone calls to reach out to people who fit the criteria for this study. Moderators for the used Facebook groups were also contacted before posting the questionnaire in their respective groups. At the end, we managed to gather 103 responses.

### 3.4 Literature Review

Prior to conducting any kind of research project, it is rather important to explore what has already been done in the research area, and this can be achieved by doing a literature review (Webster and Watson, 2002). This approach serves two purposes; Firstly, we can avoid making the same mistakes as our predecessor did and secondly, we can build on the existing research, thus avoiding having to reinvent the wheel altogether. Moreover, it can help in identifying any possible gaps in existing research which can be used as a foundation for further research (Rowley and Slack, 2004).

There are some measures that can be taken to ensure an effective literature review. A topic relevant to the research area needs to be chosen (Pautasso, 2019), and as we were exploring food waste in private homes, it was natural for us to select food waste as the primary research area. It is also of importance to identify the keywords and databases that are required to conduct the review (Pautasso, 2019). In order to find relevant material in the thesis, we primarily used Springer and IEEE Xplore Digital Library with occasional use of Google Scholar and LibSearch. We did not differentiate between books, articles, published papers or other sources, anything that was deemed valuable, was eventually utilized. Moreover, the following keywords were used to facilitate the process; Food waste, Food waste management, Food Waste Challenges, Food waste causes, Food waste in private homes, Food waste problems, and reducing food waste in private homes.

### 3.4.1 Eligibility criteria

Eligibility criteria need to be established before the process of identification, location, and retrieval of relevant material for the project begins (Meline, 2006). These criteria are used to specify what material can be included and what will be excluded (Meline, 2006).

We also decided on some inclusion and exclusion criteria in order to make our research more relevant and time efficient. The criteria included the following; The language for the researched material was restricted to English and Swedish. Moreover, articles and material published before 2000 were discarded. Furthermore, an effort was made to only use peer-graded or cited material in order to ensure credibility and reliability of the utilized material. The Abstract was read for any article or study that seemed relevant to the research area in the beginning of the process. This was done in order to utilize the available time in the best possible way. Only after deciding that the study would bring value to our research, were whole articles or studies read.

The reviewed literature enabled us to gain a deeper understanding of the factors that contribute to food waste in private homes. It also formulated the foundation for this study, as well as the interview guide that was used in the semi-structured interviews.

### 3.5 Validity

Cho and Trent (2006) describe Validity as "determining the degree to which researchers' claims about knowledge correspond to the reality (or research participants' constructions of reality) being studied." Validity risks regarding the chosen strategy and
methods will be presented in this section. With large research projects, it is rather easy to make mistakes or lose sight of the bigger picture, which could put the validity of the entire project in jeopardy. To avoid ending up in such a situation, it is beneficial to discuss some validity threats as well as countermeasures in order to ensure that the utilized data, data collection methods, and conclusions are meeting the validity standards. Some threats regarding the validity of this research project are presented below.

## Inadequate sample size

Conducting the right number of interviews to collect qualitative date and gathering an adequate number of responses through online questionnaire can be a challenging task for a research project. It is hard to think of an exact number that will satisfy the needs of the data collection and consequently validate the findings. A way to approach this dilemma in qualitative data collection is to apply the Data Saturation criterion, and is explained as "Data saturation is exemplified by the number of interviews that are conducted until there is no additional useful information due to saturation." (Hayashi Jr et al., 2019). The idea is to keep conducting interviews and gathering data until no new data appear. We adopted this approach while conducting interviews where we set the initial number to five in the beginning and then the plan was to keep interviewing until no new data appear. By the end, we stopped at 9 interviews because we had established that we were not finding any new information, which is a good indication that data saturation has been achieved (Hayashi Jr et al., 2019). We could have collected more diverse data if we had changed the selection criteria for our interviewees, but that would be outside the scope for this project. For the quantitative data, it is challenging to think of an exact number of responses that one might need to acquire in order to validate the findings. So, instead of doing that, we had decided to keep the questionnaire open and keep accepting responses for a period of time and then use whatever we had managed to acquire. At the end, we received 103 responses, which were later used in drawing analyses regarding shopping behaviour from 'Online' perspective.

## Researchers' Bias

Bias is said to be one of the major attributes of human cognition and memory, and researchers' bias can have a distorting effect on the finding (Franklin and Ballan, 2001). Franklin and Ballan (2001) further states that " Memory, encoding, and retrieval of memories are highly contingent on pre-existing beliefs and knowledge. For this reason, it is easy for researchers to ignore information that does not support their conclusions". We considered it to be a very valid threat, as we had some preconceptions about food waste and the causes behind it. Having an understanding of this from the very beginning enabled us to actively and consciously try to keep thinking objectively and to let go of any previous beliefs in order to overcome this bias. This was also a threat when the questionnaire was being designed, as the questions for the questionnaire were inspired by our interviewees' responses. We tried to overcome that by relying not only on our interviewees' beliefs regarding shopping online, but also looking through published research on the matter.

## Respondents bias

Respondents may withhold information or present facts differently in order to present themselves positively or to enhance their self-portrait (Franklin and Ballan, 2001). It is recommended to always keep the threat of "Socially desirable answers" in mind during a research project (Franklin and Ballan, 2001). We encountered such behaviour in some interviewees' where the facts were sugar-coated, or the answers were mostly in the area of "we are relatively good at managing any leftovers" or "we don't buy what we can't use, no impulsive shopping here". We tried to get to the truth by asking many follow-up questions that would dig deeper into any too positive answers. Another way to tackle this hurdle is by increasing the sample size (Franklin and Ballan, 2001). We had already taken measures to have an adequate sample size, as discussed previously.

When it comes to online questionnaires, Denscombe (2014) states that it is harder to check the truthfulness of the responses because the answers are given at a distance. It is an assumption on our part that our respondents were being as truthful as possible. To make sure that we get the most accurate results, we sent the questionnaire primarily through private channels in order to leverage some sort of personal connection with the participants.

## External Validity

External validity refers to the degree to which conclusions drawn from a specific study's sample can generalize to a broader population or other target populations (Findley et al., 2021). In this project, as we were exploring factors that contributed to high food waste in private homes, the selected sample and questionnaire respondents reflected that target. We were studying families in private homes in the Skåne county, a sample from restaurants or the likes would not be suitable. Finding the right sample in the Skåne county could mean that the inferences drawn from this project could successfully be applied to families living in, for example, Stockholm, hence increasing the generalization possibility of this study. Here, it was important to note that some external factors could have negative effects on peoples' attitudes towards food waste, for example, in instances of high stress due to a new job or project, it was highly possible that an individual's attitude toward food waste might change, and they would not care as much any more.

### 3.6 Analysis Method

This chapter presents the data analysis methods used for both Qualitative and Quantitative data

### 3.6.1 Qualitative data

Once the qualitative data had been collected, it was time to perform deeper analyses. This is where researchers usually face challenges, and they are often in need of useful instructions and guidelines that would help them analyse the mass of qualitative data (de Casterlé et al., 2012). This section covers the techniques and methods used to analyse the data collected through semi-structured interviews.

## Data Preparation

After we had finished conducting all the interviews, the next step was to get the data prepared in a format that would be ready for analysis. For this study, we prepared the data in the following steps:

- All the interviews recordings were transcribed verbatim in the textual data to be used later in the result section, where we presented our findings in detail. The actual transcriptions can be found in the Appendix.
- Transcriptions were compiled in a spreadsheet to gain a better overview.

While the interviews were being conducted, we always took notes in order for us to revisit the notes at a later time and conduct the following four checks:

- Understand what the specific issues for this particular interviewee are in relation to research questions.
- If we captured any initial patterns in the answers. We started doing this after interview two, in order to do some initial comparisons.
- If some questions need to be revised.
- If we had reached data saturation.

We went through our notes and the transcription carefully and thoroughly in order to find themes and patterns. We found a couple of recurring themes which pushed us to conduct a complementary data collection through online questionnaires. Several software tools, such as, MS Excel, MS Docs, Zoom, Miro, and various online transcription services were utilized in order to aid us in analysing the data. Having textual data in digital form helped with quick text search.

## Thematic Analysis

Several approaches were discussed while deciding upon the right method to analyse the data from the semi-structured interviews. Thematic analyses seemed like the best approach for this kind of project and data. Thematic analysis is a popular analytic method, and it refers to the process of identifying patterns and themes within the data (Evans and Lewis, 2018). In relation to the research questions, a theme should identify something important about the data being analysed. It usually reveals patterns within the dataset (Evans and Lewis, 2018). Themes are then transformed into codes and are collected in a codebook (Guest et al., 2012). The codes are generated in order to find "evidence" for the themes. They can be determined deductively where they are based on pre-existing theory or inductively, which is based on familiarization with the data (Terry et al., 2017). In this project, we have used a mix of both approaches as the first wave of themes and codes are inspired from pre-existing research, while the second wave was primarily grounded in our findings from semi-structured interviews. This kind of analysis can be used to find solutions to real-world problems (Guest et al., 2012), which makes it a very suitable approach for us as we are trying to prevent or reduce a real-world issue, i-e food waste. It starts at the stage of data collection and keeps going through the processes of transcribing, reading, re-reading, analysing and
interpreting the data (Evans and Lewis, 2018). Themes were identified from analysing the pre-existing research as well as the transcribed data, these themes were then divided into different sub categories. All the relevant quotes were identified and codes were created, which helped us in isolating themes that were ranking higher and could be explored further. It was this step that led us to collect complementary data through online questionnaire because it was evident from the findings that families struggled more with "planning" and "shopping" in the whole process than any other. Figure 3.6 present the matrix that assisted us in performing the analysis on the qualitative data.

|  | Theme 1 |  | Theme 2 |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Sub-Theme A |  | Sub-Theme A |  |
|  | Quote | Code | Quote | Code |
| Interviewee 1 | X | X | X | X |
| Interviewee 2 | X | X |  |  |
| Interviewee 3 |  |  | X | X |
| Interviewee 4 | X | X |  |  |
| Interviewee 5 |  |  | X | X |
| Interviewee 6 | X | X | X | X |

Figure 3.6: Thematic Analysis Matrix

### 3.6.2 Quantitative data

The collected data was exported in the form of an Excel sheet, and relevant filters were used in the first step to identify how many people actually fit the criteria and how many did not. The respondents who did not fit into the specified criteria were taken out. Later, we applied filters to see how many people had experience with ordering groceries online and how many had never availed that option. That divided the data into two subsets. Those two individual subsets were further analysed in order to highlight the factors that contributed the highest and second highest to those choices.

### 3.7 Ethical considerations

Ethics can classically be defined as "doing good and avoiding harm" (AluwihareSamaranayake, 2012). While conducting qualitative research, it is important to consider the potential "wrongness" of our actions as researchers in relation to the people whose lives we are studying (Miles et al., 2014). It is also important to consider the ethics of what we are doing, before, during, and after the study (Miles et al., 2014). Some issues and considerations that were deemed relevant to this project are presented in this section.

### 3.7.1 Agreement with participants

Some explicit agreement about shared expectations regarding the study need to be reached between the study participants and researchers (Miles et al., 2014). Miles et al. (2014) present some issues that might be included in the initial set of expectations, the ones relevant to this study are presented below (Miles et al., 2014):

- How much time and effort will be involved?
- What kind of data collection is involved (e.g., observation, interviewing, journal writing, life histories)?
- Is participation voluntary?
- Who will design and steer the study?
- Will material from participants be treated confidentially?
- Will participants anonymity be maintained?
- Who will produce descriptive and explanatory products?

In the email, texts and information that we sent out to people who were requested to participate, we were always upfront with as much information as possible. We were also clear on how much time we expected the interview to take (approximately, 30 minutes) and that there was no preparation required from the respondents, other than just simply showing up and answering truthfully. They were also told in clear terms that this was a request, and not something that was being demanded of them. So if at any point, they wanted to back out of the agreement, they were free to do so. We also included in the emails and texts the method for data collection, i.e., semi-structured interviews. As a part of our introduction to them, we clarified that it was we who have designed this study and will be conducting the analysis as well. Moreover, The respondents were assured repeatedly that their anonymity will be maintained and in the thesis, they will be referred to as "Interviewee 1" or "Interviewee 2" and their names will not be revealed in any way. They were asked permission to record the interviews, and they were free to deny that request. Moreover, they were also informed that if they allowed us to record, the recordings from the interviews would only be utilized by us in the transcription and analysis process and would not be shared with anyone else.

### 3.7.2 Research Integrity and Quality

Research integrity and quality pose the following questions (Miles et al., 2014):

- Is the study being conducted carefully and thoughtfully?
- Is it correct in terms of some reasonable set of standards or established practices?

To ensure a research project's integrity and quality, it is vital to address the abovementioned questions as honestly as possible. Throughout the scope of this project, we have tried to be careful. We have put a significant amount of effort into presenting our findings in the right and truthful manner. We understand the cost of being dishonest in
such a project, if caught, our work could be discredited. Being honest and unbiased in developing, reporting, and communicating research is also described as one of the fundamental principles in The European Code of Conduct for Research Integrity (ALLEA, 2017).

### 3.7.3 Code of Conduct

The European Code of Conduct for good research practices (ALLEA, 2017) has been followed throughout the course of this project in order to guide us in our work. Some relevant points are presented in this section:

## Research procedures

It is stated in the European Code of Conduct for Research Integrity that "Researchers design, carry out, analyse and document research in a careful and well-considered manner." We have followed that as diligently as possible, we have tried to do a thorough research before identifying any research gap which we would like to focus on. We designed the study that was true to the purpose of this project, as well as achievable in the time and resources that we had. we have been objective in our analysis of all the data that we received from Literature research, Semi-structured interviews, and the questionnaire. Two people working together in this project helps with being objective as if one author is being biased or subjective, the other one can point it out and helping measures can be put in place. The European Code of Conduct for Research Integrity also states that "Researchers publish results and interpretations of research in an open, honest, transparent and accurate manner, and respect confidentiality of data or findings when legitimately required to do so." It was hard to stay truly unbiased when reporting and interpreting results as we had an extensive literature research in mind which pushed us to go in either one direction or the other. Nonetheless, we had maintained from the very beginning of this project that we will try, as much as we possibly could, to not let that cloud our judgements and understanding of the data that we were collecting through our data collection methods. we believe that it worked rather well.

## Plagiarism

ALLEA (2017) also recommends that plagiarism be avoided in order to maintain the integrity of the research project. It is defined as "using other peoples work and ideas without giving proper credit to the original source, thus violating the rights of the original author(s) to their intellectual outputs" (ALLEA, 2017). We take plagiarism very seriously, and we have not consciously copied or passed someone else's work as our own. Wherever we utilized any books, papers, articles, or websites in this research project, proper references were always used, and no right were violated.

### 3.8 Stakeholder Analysis

As described in Varvasovszky and Brugha (2000), "Stakeholder analysis is an approach, a took or set of tools for generating knowledge about actors individuals and
organizations - so as to understand their behaviour, intentions, interrelations, and interests; and for assessing the influence and resources they bring to bear on decisionmaking or implementation processes." A timely and well performed stakeholder analysis can bring many benefits, and some key ones are presented below:

- Getting the project into shape: The opinions of most important stakeholders can be used and considered at an early stage in order to gain their support and also to improve the quality of the project (Thompson, 2012).
- Winning Resources: Powerful stakeholders may have access to key resources and gaining their support can help in winning those resources, such as people, time, etc. (Thompson, 2012).
- Building Understanding: Steady communication can ensure that the stakeholders fully understand the scope and benefits of the project (Thompson, 2012).
- Getting ahead of the Game: Understanding the stakeholders can assist in predicting their reactions to the projects, which can help win their support (Thompson, 2012).


### 3.8.1 Conducting Stakeholder Analysis

There are three steps that can be followed in order to perform a stakeholder analysis (Thompson, 2012):

## Identify

The stakeholders need to be identified in the first step, as they are the ones who can affect the work in the project and also have an interest in its successful or unsuccessful conclusion (Thompson, 2012). Stakeholders can further be divided into Internal and External stakeholders based on their involvement in the organization's activities (Slabá, 2014). Figure 3.7 shows the most important internal and external stakeholder groups. With the aid of Thiry (2021) which divided stakeholders in food industry in three main

| Internal stakeholders | External stakeholders |  |
| :--- | ---: | :--- |
| Owners, customers, employees, | Competitors, interest groups, government, media, environmentalists, |  |
| shareholders, trade unions, | local community, financial community, activist groups, suppliers, |  |
| management, board of directors, | trade associations, academic institutions, regulators |  |
| investors |  |  |

Figure 3.7: The most important Internal \& External Stakeholder groups (Slabá, 2014)
categories: Raw material production, Processing, and Post-processing, we have managed to identify 3 key internal stakeholders in Post-processing section and 1 external stakeholder in Processing section. These are presented below:

- Suppliers $->$ Processing external stakeholders.
- Grocery store owners, Supermarkets $->$ Post-processing Internal stakeholder.
- Consumer, Customers $->$ Post-processing Internal stakeholder.
- Employees $\rightarrow$ Post-processing Internal stakeholder.


## Prioritize

After the key Internal and external stakeholders have been correctly identified, it is time to prioritize them based on their power to either block or advance the project, as well as their interest level in the project. Based on both these factors, some strategies can be devised to manage the stakeholders. A power grid, presented in figure 3.8 can be used for the classification of stakeholders as well as strategy development for stakeholder management. Employees would have high interest but low power to impact our pro-


Figure 3.8: Power Grid (Thompson, 2012)
posal for online shopping portals in some significant way, so they fall in the lower right quadrant of the grid and therefore, should be kept informed about the solution and the eventual impact on their workflows. Grocery stores owners would have high interest and high power as they can refuse to enforce our solution, so they fall in the upper right quadrant and need to be managed closely at all times. One way to do that would be
building understanding by communicating the benefits of the proposed solution. Suppliers would fall in the upper left quadrant as they would have high power to stop the solution from going forward as they can refuse to enforce changes that are vital for the solution to work. On the other hand, they have low interest in this proposal, as they wouldn't be gaining anything directly if this solution is put into action. They might be able to see some increase in demand for their products due to greater exposure through online shopping channels, but that would be sometime in the future. Consumers are the most important stakeholder in this project as without their willingness and intention to adopt the proposed solution, the online shopping portals would not work and would not bring any value. So they fall in the upper right quadrant and should be managed closely.

## Understand

In this phase, it is vital to understand how the different stakeholders feel about the project (Thompson, 2012). That has been the scope of this thesis, to understand one of our key stakeholders, i.e., Consumers. We have conducted semi-structured interviews as well as online questionnaires in order to understand their challenges, needs and eventual motivations to maybe adopting this online shopping solution in the near future. The remaining stakeholders are also important for making this proposal work, but they can be explored in future projects.

## Chapter 4

## Results

The gathered results from the exploratory semi-structured interviews as well results from the Questionnaire will be presented in this chapter. In the next chapter, the results will be discussed in light of the findings from the literature review.

### 4.1 Interviewee specifications

Nine exploratory semi-structured interviews were conducted over the course of five weeks. The chosen families agreed to participate in the study and did not explicitly wish to remain anonymous. But for the sake of maintaining their privacy, we have decided to refer to them as "Interviewee 1", "Interviewee 2", "Interviewee 3" and so on. A summary of initial information is presented in the following section:

- Interviewee 1 is a mother of twin boys aged 7. She lives together with her family, that includes her children and her husband, in Malmö. She has a Bachelor's degree in Social work and works in Copenhagen, Denmark. Her husband works in Malmö, Sweden.
- Interviewee 2 is a mother of three children, two boys and one girl. The children are aged 11,9 , and 3 . She lives with her family, that contains her husband and her 3 children, in Malmö, Sweden. She works as a pre-school teacher in Malmö, Sweden.
- Interviewee 3 is a mother of 2 adult children, a boy and a girl, aged 22 and 20. She lives in Malmö, Sweden, together with her husband and her 2 children. She works in Copenhagen, Denmark, and her husband works in Sweden.
- Interviewee 4 is a mother of 2 children aged 14 and 11. She lives in Bara, Sweden together with her family that contains her husband, 2 children, 2 cats and 1 dog. She works as Head of department at a bank in Sweden.
- Interviewee 5 is a father of 2 , a boy and a girl, aged 19 and 17. He lives in Löddeköppinge, Sweden, together with his wife and 2 children. He works full time in sales.
- Interviewee 6 is a mother of 2 children, aged 14 and 11. She lives in Löddeköpinge, together with her husband and kids. She works as a manager for a company that supplies floors for hospitals, schools etc.
- Interviewee 7 was a couple where the wife works as a nurse in Malmö, Sweden, and the husband works as a Train manager in Copenhagen, Denmark. They live in Malmö together with their 4 children, 2 boys and 2 girls, aged 15,12,10, and 5.
- Interviewee 8 is a mother of 4 children, 2 boys and 2 girls. She is Danish but has been living in Malmö, Sweden for the last 16-17 years. She lives together with her husband and 4 kids. She works in Copenhagen, Denmark.
- Interviewee 9 is a mother of 2 children aged 17 and 12. She lives in Dalby, Sweden, together with her husband and 2 children. She works as a Train manager in DSB in Copenhagen, Denmark.


### 4.2 Interview Results

The interview results will be presented in the order in which they were conducted i.e., Control Questions, Planning, Shopping, Storing, Cooking, Eating, Managing leftovers, and Assessing edibility. Answers from CQ6 and CQ7 are presented in the next section. A detailed summary of the data collected through the Control questions CQ1, CQ2, CQ3, CQ4, CQ5, CQ7 - from the interviewees is presented in the figure 4.1.

|  | CQ1 | CQ2 | CQ3 | CQ4 | CQ5 | CQ8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Interviewee 1 | Lives with her husband and twin boys, aged 7. | Divided equally between her and her husband. | Depends on what they need, usually go to 2-3 shops. | Big shopping - Bi-weekly. | 4 | 4 |
| Interviewee 2 | Lives with her husband and 3 children, aged 11,9, and 3 . | Divided equally between her and her husband. | Ica, Emporia. | Up to 3 times per week. | 5 | 5 |
| Interviewee 3 | Lives with her husband and 2 adult children aged 22 and 20 . | Her. | Willy's, Coop, Abdos, Indopak (for Pakistani stuff). | Once a week. | 4 | 5 |
| Interviewee 4 | Lives with her husband and 2 children aged 14 and 11 , with 1 dog and 2 cats. | Her 60\%, Husband 40\% | Local Ica. Have been discussing to shop online but haven't done it yet. | Quite often. | 4 | 5 |
| Interviewee 5 | Lives with his wife and 2 children aged 19 and 17. | Him. | Willy's, Lidl, Ica. Weekly offers from different stores decide where they shop from that specific week. | 2-4 times a week. | 5 | 5 |
| Interviewee 6 | Lives with her husband and 2 kids aged 14 and 11. | Her. | Big weekly shoppings - Online. Small stuff from shop nearby. | Once a week. | 4 | 5 |
| Interviewee 7 | Lives together with 4 children aged $15,12,10$, and 5. | Both. | Willy's and City Gross. | Every other week, sometimes every week on the weekends. | 3 | 5 |
| Interviewee 8 | Lives with her husband and 4 children, 2 boys and 2 girls aged 14,11,9, and 5 . | Both. | Stores are decided upon based on store offers, what is needed and what is on the way. Mostly, willy's, Coop, Ica, Lidl. Arabic stores for halal meat. | Once a week. | 5 | 4 |
| Interviewee 9 | Lives with her husband and 2 children aged 17 and 12. | Mostly her, sometimes husband on the weekends. | City Gross. | Once a month, small stuff everyday. | 3 | 4 |

Figure 4.1: Summary of responses for Control Questions.

In the beginning of the interviews, the interviewees were asked what came to mind when we said the word "Food waste" and how important was it for them to avoid it in their households. Interviewee 1 said that they concentrated a lot on food waste, and it was very important for them. So every morning when she woke up, she checked what was in the fridge, if they had any leftovers or if they had any vegetables or fruits that were getting a bit old. So she would Google some recipe to find something that she
could make with those ingredients so that they could be used before they had to be thrown out.

Interviewee 2 said that they hadn't really thought much about food waste and in their household, a lot of food went to waste. Sometimes they bought too much food or cooked too much food, and a big portion of it went to waste. They realized that it was an issue, and they had started to think seriously about it. She said that one way to go would be to use what they bought and remembered to eat what they cooked.

Interviewee 3 had a different approach towards food waste. She said that it was actually very important to them because of its religious aspect. She further explained that as a Muslim, they were not supposed to waste anything. So this consciousness around food waste had its roots in both economical and, more importantly, in religious factors. She also admitted that it of course happened anyway, but they tried to avoid it by planning properly.

Interviewee 4 said that they had some food waste in their households, not a lot. And that was because sometimes, during the big grocery shopping, they bought things just in case, and they got too old and needed to be thrown out. They also resorted to using meal box schemes a few times, but didn't stick to it.

Interviewee 5 said that his family had no food waste, as they didn't throw away any food. When he cooked, he always tried to make extra and the leftovers could be eaten for lunch the next day. He also added that it was very important for them to avoid any food waste in their households as he stated that: "I don't want to throw away because that's not the way how I was brought up."

Interviewee 6 said that it was a shame to throw away so much food when we had so many people who went hungry every day. She also mentioned her appreciation for initiatives that rescue food: "I think it's a shame that we throw away, you know, so much food that we do. I think I'm happy when I see those initiatives, like you know, the rescue, taking care of fruits and making juices, smoothies, and whatever it is that they're doing. I think there is so much more that could be done. I think it's a shame that there are people going hungry every day while we throw away so much. So I think it should be illegal. That's, you know, of course, I don't mean that literally, but I think it's really a shame that we do it." She further elaborated that it was very important for them to reduce food waste in their households, they tried to eat the leftovers next day or freeze them to be used at a later time. She stated, "...it's our responsibility as human beings not to throw away food. I tend to minimize it myself, I tend to plan more. when we have leftovers, we eat it or if we don't manage to eat it, for some reason, we put it in the freezer, and we have that for later on. There is always of course waste anyhow, you know when the fruit gets bad or whatever it might be. That's a shame. Try to learn, but yeah, try to remember not to go grocery shopping when you're hungry because that's when you pick all that extra things.".

Interviewee 7 described that they tried to throw away as little food as possible, and they tried to improvise and create new dishes with the leftovers. They also mentioned
the food packets with "not so nice" or "good-looking" fruits and vegetables in Willy's and Coop that were offered at reduced prices, the wife said that she sometimes took things from that corner and tried to use them in some form, for example, sometimes there were banana packets that had spots on them, so she bought them at a reduced price and then made milkshakes or smoothies with them.

Interviewee 8 stated that it was rather important for them to avoid food waste in their household, she explained: "...we really try to make as much as we can eat. And we also try to eat the leftovers over a couple of days. So we don't waste so much. And that's very important for us. Also, to be more creative, if you have some leftovers, to use the leftovers in another way. For example, if you have some chicken, maybe you can make the rice the next day or be more creative. So you really use what's leftover." She further stated the reason she thought we have so much waste in private home: "...mostly it is consuming too much and buying too much and not using it within the date it expires, making more than you need..." She also mentioned that recycling the waste in a proper way was also important in their household, she stated "...you have to divide all your garbage in specific boxes So in that case, we are very aware of that with the food as well as the leftovers, if we throw out anything then we know how we have to use it. So the waste will be useful in another way."

Interviewee 9 explained that they didn't have a lot of food waste in their household, might be some vegetables when they went bad, and they needed to be thrown out, but other than that they tried to use what they made, and it was important for them to not have any food waste.

### 4.2.1 Planning

## P1. How do you plan for shopping, What do you normally do? (Which factors are regarded?)

We received a variety of responses from our interviewees regarding this question. Interviewee 1 explained her planning for grocery shopping as: "My plan is always to make a list. But (I) always never make a list. ...sometimes I have some notes on my phone, milk, egg, etc. But normally I'll just go in a store, and I'll go in every single aisle there is in the store and just see what do I need? What don't I need?"

Interviewee 2 explained that they almost never made a list either. On the way home from work, she and her husband often communicated to determine what was missing at home, it could be milk or yoghurt, etc., and then they just bought it on the way. She also emphasized that her work and her children's routines dictated a lot of her shopping habits. So, for example, if she knew that she would have long working hours in the next 4 days and her kids had many activities as well, then she would make sure to shop already that day, even if they were not missing anything at home, just to ease the coming days. Her idea of planning was "We take it as it comes".

Interviewee 3 had a rather different take on the matter, she explained "I have always progressive list If today, like okay, we need onions, then I put it on the list. And I have

3 different lists for different places where these things should be bought, like we buy meat from "Abdos" (a low-price grocery store in Malmö, Sweden). And then you have the dairy products and other fruits and things from Willy's. So I have three different lists all the time. Or if it's a totally very hasty thing, then of course, we go and buy it from nearby. But otherwise, it's like once a week, or maybe after five days, we feel okay, there are many products that need to be bought."

Interviewee 4 explained her lack of planning as "We are looking in the fridge and say oh we don't have anything to eat today. So we need to go and shop something (and) that's the planning". She further explained that they did keep a grocery list for the basic stuff like, milk, cheese etc. but they didn't prioritize planning for other stuff because of their busy work and family lives. Interviewee 5 explained his planning as "I plan from my head, my wife needs (it) when she's just shopping which she does sometimes, she needs to write it down, but I'll take from the head." He further explained that he tended to decide which grocery shop to visit for what items based on the grocery store's weekly advertisement.

Interviewee 6 stated that for big grocery shopping, she liked to do them online, she explained "when I do the big weekly shoppings, I deal with them online, I think it's very convenient to just click, whatever you want to have. And then you just go and pick it up. Especially during the pandemic, that's been my main way to shop. When you're only going for, you know, that's a litre of milk that you're lacking or a piece of bread loaf or whatever it might be, then, you know, it's easier just to go and pick it up physically. But otherwise, ...I like the online shopping." She further explained how she planned for and actually did her online weekly shopping "...it's most often I would say, sit down later in the evening with my computer and doing the online thing. And if I do(shop) anything after work is because we are lacking something for the dinner."

Interviewee 7 mentioned they planned their weekly shopping based on what was on sale in different grocery shops. If something was on a reduced price than they would buy more because with 4 children at home, they believed that it would eventually be used on time. Interviewee 8 had a similar approach when it came to scanning for best offers, she explained, "We make a list of what we need to shop. And then again, as I mentioned before as well, we go through the good offers, so we know where we have to go for shopping, but it's more like the listed is divided. So we remember, we try to stick to the list that we have, so we don't do this impulse shopping. So (we) know what we need, and we try to go after that."

Interviewee 9 mentioned that she didn't like to make lists beforehand, she only did it when it was time to go grocery shopping, she explained "I'm not so good at planning. But when I'm about to take my car and go away to shop, I look in the kitchen, everywhere and make a list of everything we need. That list could be very long sometimes. Then I go to the shop and start shopping. But always, I have a lot of other things in my bags when I'm going home again, that was not on the list. Yeah, I prefer not to bring my children because when the children are with me, they always want a lot of things I don't have on my list."

## P2. Do you check your pantry/fridge when you are planning?

Interviewee 1 said that she always checked her pantry and fridge when she went shopping. Interviewee 2 just checked her fridge only in the mornings, in order to see if they were missing something that needed to be bought on the way home from work that day. Interviewee 3 explained that she always had a list going based on what was missing at home and when she sent her son to buy groceries, he would stick to the list, but when she went, she would browse as well. She explained: there's more when I go myself, then I see okay, maybe something else is on a good offer. Or maybe I need this or if I want to cook something new. Or then I also add it to the list. And when I'm myself going, then I'm more, you know, like innovative."

Interviewee 4 stated that they have a list going on for the basic stuff based on what is lacking in the fridge. Interviewee 5 explained that he shopped from the head, and he therefore argued that he didn't need a list. But he also stated that one opened their fridge 20 times a day, so it was rather easy to see what was about to be finished, and then he just bought that during the next visit to the grocery store.

Interviewee 6 stated that she mostly checks her pantry and fridge prior to placing orders online. Interviewee 7 said that they usually kept an eye on what was about to be finished so that it can be bought in their next grocery shop visit. Interviewee 8 stated that she definitely checked everything through and determined what was missing, she further explained "I try to also have a list on the fridge where for example if the kids use something then they can nicely right that this one is done, so we know also what to buy. So we are very aware of what we have and what we are missing." Interviewee 9 mentioned a list on the fridge as well where everyone could write what was missing.

## P3. Do you make a meal plan and have a food budget?

All the interviewees stated that they didn't have a strict meal plan or a food budget. Interviewee 1 said that meal plan was mainly dependent on who wanted to eat what, she further explained: "I got two sons that are very different. The one of them will eat everything. He loves Pakistani food, but the other one is a bit choosy. He doesn't like Pakistani food as much, he will eat the rice but then said he won't eat the sauce and bread. So we need to make rice, pasta for him. And the father, he likes sauce and bread. So it's often a dish of rice addition of pasta, and sauce with bread." Regarding the food budget, she said that she of course bought everything that they needed, but she also said: "...I am very careful with what I spend money on. We are brought up like that, we don't use all the money." Interviewee 2 explained that they have never had a meal budget because they didn't like to be tight when it came to food, they liked to remain open.

Interviewee 3 explained: "No, we don't have a budget. But of course, it's not like some extravagant things, but not a budget. I mean, if we need something, we need it. (If) it's more than what we thought it is, it is what it is. I don't have a meal plan. But I am the one who cooks and I plan the meals. Okay, for two days for three days, different dishes. And then I know that these things are made. It's ...never a hasty decision." Interviewee 4 stated that they had neither a food plan nor a food budget.

Interviewee 5 said the same as interviewee 4, they didn't have a meal plan or meal budget. But on the other hand, he was sensible about how he spent his money and always planned the meals for a certain week based on what was on best offers in different stores. Interviewee 6 stated that they didn't have a food budget but definitely had a meal plan and deemed it useful, she explained "With picky kids not eating everything, kind of, you know, trying to cook whatever they like to eat. Then I'm...just making the list, what to eat in the next couple of days and buying whatever I need for that. Because once you're done from work, it's nice to have the plan knowing that everything is at home you can just start cooking your meal, basically."

Interviewee 7 mentioned that they didn't have an exact meal plan that was planned many days in advance. Instead, they liked to ask the children what they would like to eat today or tomorrow and plan accordingly. Meal planning was more spontaneous rather than planned. Regarding food budget, they explained they did have a budget, but it wasn't something set in stone, it can go up and down based on circumstances. Interviewee 8 mentioned that she would love to have a weekly meal plan and have thought a lot about it as it would help her plan her day, but unfortunately they didn't have it at the moment. regarding the meal budget, she stated, "We have like monthly payment we make to account for the monthly food, and then we stick to that and if there's any holidays or anything specific upcoming, then we just add amount to that if it is necessary."

Interviewee 9 stated that they were bad in planning and didn't have a fixed meal plan. It was the husband who did most of the cooking in their household, and he was usually good with improvising and cook something from what they had in the fridge. Regarding the food budget, she mentioned that even though it might be good to have a food budget as it could be cheaper and would stop you from doing impulsive shopping, but they didn't have any at the moment.

## P4. In general, do you think planning or lack of planning affects food waste? Why?

Interviewee 7 explained that by knowing what their children liked, and they planned accordingly because they didn't like to throw away food, they believed that adequate planning is required in order to not throw away so much food. Interviewee 8 explained, "If you have a plan, I think it won't be so much waste. So I definitely think that planning of food weekly, can be a huge benefit. Because I can imagine a list of what you have to shop as well, then you don't do so much impulsive shopping, because you know what you want to use. And you know, you have a plan. ...will be a big, positive thing to have that (planning)." Interviewee 9 gave a similar response as interviewee 8 and said that planning is much better and if one planned well then they would have less food waste for sure.

## P5. Do you think your planning affects the amount of food being wasted in your home?

The wife in interview 7 explained that she was mostly the one who was taking care of the cooking and no food ever went to waste, they even required from their children that they needed to finish what was on their plates before they could leave the table.

Interviewee 8 stated that if they planned more, they would definitely be less food waste. Interviewee 9 explained that they didn't have much food waste to begin with, so she didn't believe that any improvement in planning would have any effect on food waste in her household.

### 4.2.2 Shopping

SH1. Can you describe your routine for your grocery shopping, walk us through a grocery shopping session?

Interviewee 1 mentioned that she always checked the advertisement that contains weekly offers before going into a store. Interviewee 2 stated that when she visited a grocery store, it was easy to get side tracked and start looking at things because they were appealing. This often prompted her to buy things that she didn't exactly have on the list or to buy a little extra, for example, strawberries or bananas etc.

Interviewee 3 had a more straightforward approach when it came to shopping, she described her shopping routine as "I just check my list and I also put the list in order of appearance. Like we start with the fruits because like, if you go to Willy's, it's like the fruits and the bread, and then you go to the other items like cheese and the milk and everything in the frozen items. And then we have the dry things...like rice or pasta or whatever that's needed. And lastly, the cleaning items."

Interviewee 4 had a similar approach to shopping as well where she would get her list out and start shopping based on that, she explained: "I pick up my list where I have written what to shop. And then I take it. Just go around and pick that stuff up. Um, a little bit more that I find, that I would like to have at the moment, yeah, like chocolate and stuff." She further explained that she and her husband had an ongoing synced list where they would put things that they needed based on the things in their fridge and pantry.

Interviewee 5 had previously stated that he didn't keep a list and always bought from his head, so a typical shopping routine would be to start with vegetables and fruits and then move on to dairy products, bread, and meat. He also mentioned that he always bought Swedish meat, as he believed that animals are treated better here than any other place. He further mentioned that he didn't like the self scanning option, as he got stopped and checked too many times.

Interviewee 6 tended to buy groceries online, so she didn't visit grocery stores like other interviewees, she usually placed the orders late in the evening. The order was mostly based on a list and what they needed, but she sometimes threw in stuff spontaneously as well. Interviewee 7 stated that for big grocery shopping, they had a list to begin with, but they always ended up buying things that were not on the list, which is something that they were aware of. The wife mentioned that her some of her acquaintances have used online shopping option, and they say that it was good because one didn't get distracted by other things, which can happen easily when one was in a physical store.

Interviewee 8 stated that she mostly focused on her list when she went to shop groceries, but she did explore other stuff and offers as well, she explained: "Normally, I go into the shops that I know. So the things that I buy, I know where they are. So you have your routine... on the way, you buy the things that you have on your list. And sometimes when you walk through the shop, you also see things that you've forgotten to write on your list, but you know that you need (them) at home, or maybe they have a good offer, so you take that as well. So more depending on what the shop has to offer."

Interviewee 9 stated that her shopping routine started with her taking the scanner and go to vegetables first, after that she didn't usually have a plan. She further explained that having a scanner while shopping is important to her because: "The scanner is very good because I see the price. And I can compare prices with two different boxes of milk, for instance. I can compare prices, and then it makes it much faster... I don't have to be waiting in the line. I scan my things, and then I pay, and hopefully the grocery shop don't want to check me one extra time." She further elaborated: "...I prefer not to be in line, I want to go home with my food. I don't want to be in line waiting. People are standing close to me, I don't like that. I have it enough in my job."

## SH2. The good provider identity, how much do you relate to this? Why?

Interviewee 1 related to the Good Provider Identity on a high level, she explained "I lost 40 kg (and) my husband got diabetes. So because of that...when I go out to buy stuff, I'll buy sugar-free candies, I'll buy more healthier chips, mostly fruits and vegetables. I'll try to get it in, but obviously I got two kids, seven years old (and) they don't eat vegetables. And they do eat candy with sugar. So I still get in a problem with them. But we have the option. They do eat it, but obviously they want the more unhealthy stuff."

Interviewee 2 stated that she always tried to do things that made her children happy. She tried her best to avoid the scenario where her children woke up in the morning and noticed missing that they wanted to have, she always strove to have everything available for her children at all times as it made her feel calm and fulfilled as a mother.

Interviewee 3 stated that she couldn't relate to that because in their household, she always taught their children to eat everything and not give them any extraordinary treatment, she elaborated: "...when my kids were younger, it was not like okay, what do you want to eat? I mean, we make something and everyone eats that. If you're not allergic to it, of course. It's not like I have to make three different things because to satisfy them. So that's why it's not that difficult. I mean, ... we eat this food and when it's over, we make a new thing. It's not like oh no, I don't want to eat this, or I don't want this, or I don't like this We are thankful for what we have, and I tried to teach my children also this, and I think I have succeeded in this part."

Interviewee 4 stated that she could relate to the Good Provider's Identity, she elaborated "I do take the easy way of course, ...I cook something that I know they like. And that's the easy way out. And that one of the cases for instance, where we have food boxes delivered, that even if they were able to choose what to eat one day, the other
ones (children) wanted the other one (option), and well, it's all this discussion, so I take the easy way out. In very many cases I'm quite strict, but this is my soft spot. I just want them to eat and be quiet."

Interviewee 6 did not think she spoiled her children or tried to overdo anything, she explained: "it's more about making sure that they eat like you know, food that is good for them and healthy for them...so making sure that they get a little bit of you know, pasta, meat, vegetables, and all kinds of things that (they do)not only eat the pasta and meatballs or whatever it might be, it's more in terms of that. But of course you want to make sure that they eat, but making (also) sure that the food is good." She further explained that that behaviour didn't have any effect on her shopping routine, she would still only buy what she planned to buy and nothing more.

## SH3. Let us discuss time constraints that you might have.

Interviewee 1 believed that time constraints did have an effect on her shopping behaviour, she explained "...when we have a lot of load from the work, me and my husband. He got long shifts and I got a load in my work in some kind of way. The kids are stressed because of school or everything, then obviously I forget what to buy. Even if I have a list, I'll forget to put it on the list. So that means I'll shop more. So now, I'll go buy milk every second day or something, but because of the stress I'll maybe go to the grocery shop every day, the nearby grocery shop because then I just forgot the milk and that happened often when we are stressed...". But she didn't believe that going to a grocery store every day had any effect on her food waste because she bought exactly what she needed every time.

Interviewee 2 thought that weekdays were stressful because of her job and when she went grocery shopping while being stressed and pre-occupied, she often ended up buying extra things. Interviewee 3 argued that she bought less if she was stressed. If she had little time to shop, then she would just buy what she had on the list and not wander around the store, looking at other stuff, as she might otherwise do.

Interviewee 4 mentioned that they didn't prioritize time for planning because of their busy work and family lives, so they might end up buying more when they did big grocery shoppings, she explained: "...if we go to for a bigger shopping, then we buy stuff like, Oh, it is cheaper here to buy cat food for instance, let's buy that when we're here, even if it's not out, but it's ...more economic to do that, or toilet paper..."

Interview 5 said that being short on time had no effect on his shopping routine, and he always followed his routine. Interviewee 6 stated that time constraints did not impact her shopping behaviour as it had with other interviewees, but she did tend to buy products that were easier to prepare and cook as she is mostly pressed for time when it was time to cook.

## SH4. How do you see Oversize packaging, 3 for 2 items, bulk buys?

Interviewee 1 explained that because she had a big storage space at home, she often bought in bulk and availed the 3 for 2 offers on a regular basis. That being said, she also mentioned that she never bought anything that she thought she wouldn't be able to use before it went bad, she explained "if it's like something that will get old too quick, then I'll think about it before I buy it. And if it's like milk, there are two days till it will expire. And I buy a lot of milk than ...plan, what can I make from this milk? Can I make some cheese? Can I make some kind of sweet dish or anything with milk? And the rest, we will just drink the milk with the evening food, the dinner. So, but if I know okay, this is 3 for 2 , but I won't eat it, then I won't buy it."

Interviewee 2 admitted that she can't ignore any 3 for 2 offers that she might see, she was simply unable to pass them. She always availed the 3 for 2 offer if she saw it, and hoping that they might be able to use those products in the coming days. According to her husband, this habit increased the amount of food waste in their household.

Interviewee 3 considered the 3 for 2 or other such offers useful, she explained "...it depends on what it is, normally it is very good. Because ...we live in a villa, so we have space to have extra stuff. So if it's something which we use usually, or something which we will be needing (and)it's a good date, like expiry date is very far in the future, Yeah we can buy that and maybe more of it. ...often ...like the soft drinks." She further elaborated that they didn't usually avail these offers for things that could bad in the near future, like milk, or yoghurt. It was more for longer planning, so it didn't have any effect on food waste in her household. Interviewee 4 stated that she didn't actively look for such offers in most cases, if she saw it and found the offer to be useful, only then did she buy them. Her take was that if she didn't need extra packages, then she won't buy them even if they were on sale. Consequently, she didn't believe that availing those offers had any negative impact on her food waste.

Interviewee 5 had a similar approach to 3 for 2 or similar offers, he would only buy them if he knew that he could use them before they went bad but for things like coffee, he would always use the offer and buy more even if they already had many packets at home as that is something that they used every day. He also mentioned that as he worked in sales, he knew that sometimes one can sell something to someone else that they don't necessarily need it and will never use it and then it is expensive. The same principle applies to food, he elaborated: "...if you don't eat it, and then you have to throw it away because it gets old or whatever. Then it is expensive because you don't need it. "Interviewee 6 also stated, like the previous interviewees, that she only bought things on such offers if the expiry date was not too tight, for example, fresh salads, she would not buy extra even if they were on offer, but she would definitely avail such offers on things with longer expiry date, for example, canned products or pasta.

Interviewee 8 mentioned that she liked 3 for 2 offers but only if she could use them, she explained: " I will definitely take three for two...depending on what it is because if it is something that I can store at home that won't get old... of course I will buy it because if it is something that I use at home then I know if I will not use it now, I will use
it until the expiry date. " On the other hand, she also said that she never availed such offers for products that she didn't often use, she elaborated: "I bake a lot, so if I need an ingredient that I don't use too often, but there is an offer on it, then I will not take it. I will not use the offer if I know that I will not use it for a long time. Sometimes it's also expensive to be cheap."

Interview 9 had a similar approach as the previous interviewees, she explained: "...sometimes if I only need one thing, I don't see a reason why I would take three of them because it's a little cheaper. I just buy one. But sometimes it's a good offer, depending maybe on what it is."

## SH5. Have you ever ordered groceries online? If yes, tell me about that experience. How often? If no, why?

Interviewee 7 had never shopped groceries online because they had heard from colleagues that when one shopped online, they would usually get products that were close to their expiry dates. The wife further explained that when she was in a store herself, she could always check expiry dates on bread, cheese, milk etc. and would pick the ones with the longest date, which is something, according to her, is not possible to do when they shopped online. She also stated that when it comes to fruits and vegetables, she would like to see what she is getting, and she would like to pick fruits that looked nice, which can't always be possible when shopping online as the people working in the store might pick things randomly they end up getting products that are not so fine.

Interviewee 8 mentioned that she has never shopped groceries online, she explained: "I don't feel comfortable with that I don't know I'm more when it comes to that I'm more like a feel and grab person. So I like to go and pick my own groceries and be sure that what I get is good for the money and good quality as well. ...I'm more like to go and grab my stuff myself. So I know that I will get what I want...I am a busy mom, I have a full time job. And I'm busy at home as well. So that's like my escaping moment when I am in the shopping mall for myself and have like that half an hour or one hour of shopping. So I will rather prefer that than sitting in front of the computer or app and order what I have to order.

Interviewee 9 had never tried shopping groceries online, her reasoning was: "...I like to buy food. I like to go to a grocery shop, I do it myself."

## SH6. Do you think shopping groceries online have a positive or negative impact on food waste?

Interviewee 7 believed that shopping groceries online would have a positive effect on food waste, as they would only buy things that were on the list and not do any impulsive shopping. Moreover, the husband mentioned that older or sick people who couldn't go to grocery stores themselves, this might be a good option for them as well as this way, they could order groceries multiple times and whenever they wanted and not had to throw away things because that got old.

Interviewee 8 also believed that shopping online would have a positive impact on food
waste, as then one would only order what they needed to order and would stick to their list. That changed when one was inside a physical shop and got easily distracted by offers that were very strategically placed throughout the store. Interviewee 9 certainly believed as well that shopping online would have positive effect on food waste, she explained, "when you buy it on online, it's like a very good planning. When you're to shop, you have a list, and you're buying it. But then you also find a lot of other things you don't need, and you buy it. But when you buy things online, you don't do that you only buy what you actually need, then you don't waste food. So I think it's good."

## SH7. What do you think of services like hello fresh?

Interviewee 6 stated that they were sceptical about using services like Hello Fresh, they felt that it was not needed as they lived close to grocery stores and can do grocery shopping themselves. Interviewee 8 has never tried them either, but had heard good things from her friends who had used them. She elaborated on why she thought the feedback from her friends was good: "...we're living in an environment where everybody's very busy and the lack of time everywhere. And for them (her friends), it was very easy to get delivery to the door and actually get a recipe that they just have to follow. So they actually skip all the thinking process of what to cook, do we have it? Do we need to go to shopping and so on? So actually just get everything served in a box, and you just have to follow the recipe. So it's quite easy and time saving as well." Interviewee 9 had never tried such services, but she was certainly curious about them and might look into them.

### 4.2.3 Storing

## ST1. How do you store food and groceries?

All the interviewees stored their groceries in fridges, freezers, and pantries. All the interviewees also had some sort of sorting based on what kind of products goes were. For example, milk in the door of the freezer. However, interviewee 6 stated that she tries to have a sorting system when storing food and groceries, but she was alone in her family to follow it. Interviewee 4 also highlights that she tries to have a certain sorting, but her children tend to rearrange the system.

When asked if they had other ways of sorting groceries, interviewee 3 stated that she tended to sort things based on what should be used first. Interviewee 8 responded that her family had a similar system; "Yes, of course like the date of expiring have to for us come first, and the rest have to be in the back. And then what's more... also the vegetables and so on, we are very aware that the incoming grocery goes in the back and the ones that are in the fridge comes in the front, if somebody else uses it, they know that what they have to use first is (in the front) before taking any anything else, due to expiring date, and so we don't waste food, so we use the things that we have in the fridge first." Interviewee 4 and 9 also stated that they try to sort dairy products based on best before dates. Interviewee 1 seemed to be aware of systematic sorting and putting products with the shortest date in front so that they could be used first, but had never implemented it.

Other interesting insights from interviewee 1 and interviewee 6 is that both of them have "extra" storage for food and groceries, which they seem very fond of and mentions that it helps with their everyday lives.

### 4.2.4 Cooking

## C. 1 Can you describe your cooking routine?

Regarding what usually is cooked in the different families, routine itself is consistent between the interviewees, cook what is convenient and available. Most of the interviewees stated that it depends on whom (in the family) has the best prerequisition to cook does the cooking. Interviewee 3 "Yeah, but I like I always make like on my day off because I have, I work also on the weekends, and I have some days off in the week. And then I make some food for the coming days. I never cook on the same day as I'm working. So I plan like some meat a meat dish, a fish dish, a vegetarian dish, and then we like to eat that for two, three days."

Interviewee 4 said: "Yes, I decide what to eat. I normally, if we have everything at home, then I just cook it. if I have rice and chicken, I do it at the same time, of course, I say it, but if you ask my husband, he does the rice first and then the chicken, but I do it all at once. And then I put it on the table. And then I say now it's food." Interviewee 6 stated "I kind of like to, you know, freebase, cook something out of what we have at home because then I know, I make use out of what we have and so yeah, I'm kind of the one making the cooking from beginning to end and with not so much help from the other".

## C. 2 What do you regard when cooking for dinner? For example: Plate size, participants, How much they eat? Any other...?

When asked about what the interviewees regard when they cook, they bring up circumstances regarding cooking Interviewee 5 states that they always (for example) cook a kilo of chicken because they know that it will be consumed based on circumstances (children exercise and eat a lot). The consensus of the interviewees regarding this question is that what is most important when regarding when cooking is not plate size, participants and how much they eat. The most important thing to consider is convenience. They all consider leftovers a convenience. Interviewee 5 and 6 stated that I always cook a little extra, either it can be eaten or I can have it as leftovers the day after. When asked if they prepare the food based on portion size, they all stated (in different formulations) that they know how much to cook for their families.

## C. 3 How do you cook? Follow a recipe or more improvised? Does it differ between weekdays and weekends

All the interviewees stated that they more or less tends to improvise when they are cooking. This is based on all the interviewees being consistent when asked about if it differs betweens weeks or weekends. The consensus being that they always cook in an improvised manner (improvised being to cook from memory or from experience).

### 4.2.5 Eating

## E. 1 Do you eat as a family together?

When asked this question, all the interviewees said that they at least try to eat dinner together, but unfortunately sometimes that's not possible. Interviewee 1 stated that they eat all the meals the parents eat together. That meaning that the children eats approximately 6 times a day, whilst the adults eat 3 times a day. Interviewee 3 stated "Yeah, yeah, often, but like today, I'm working to 10 o'clock. So, that won't happen. But otherwise, yes. Interviewee 5 stated, "No. Unfortunately, because with the kids when they work out, and they have a lot of things that are very active, and we always did that when they were younger. No, it's difficult. Sometimes they stopped practising around five and then they can't see it and then that our son comes home at seven then our daughter went away at work practice at 630. So we like to eat as a family, but we don't as much because of an active life.

## E. 2 Would you produce more or less food waste per plate if your children were not eating that day?

Interviewee 1 stated that they would produce more food when the kids were not eating in order to create leftovers so that the kids would have something to eat later or as leftovers. Interviewee 1; "...we always make more food because they (the kids) can eat when they come home. Interviewee 3 stated that they would not produce more or less food waste if the children were not eating that day. Interviewee 4 stated that they would net produce more or less food waste if the children were not eating because then she would not have cooked the same amount of food. Interviewee 5 stated that they don't have any food waste ever, so they would not produce more food waste if the children were not eating that day. Interviewee 7 stated that they would produce less food waste if the children were not eating that day. Interviewee 8 stated that it would not matter since they would save the leftovers for another day. Interviewee 9 said that: "No, I don't think so. When it's only me and my husband. We do a dinner for two, and we don't waste any food. We don't throw it away".

## E. 3 Do you think eating out affects your food waste at home? How?

Interviewee 1 stated that eating out would not affect the food at home, it depends on what they have home. If they have leftovers at home, they freeze it. Interviewee 1 : "...sometimes it does depend on if you have anything at home because if we just made dinner or if you just made a lot of food a day before, and we eat out, obviously we can't eat the leftovers but if I know I'm going out for dinner tomorrow or the same day I'll freeze it (the food)". Interviewee 3 also stated that eating out would not affect the food waste at home because it would not affect the food waste at home because you plan that as well. Interviewee 4 argues that if they eat out, it does not affect food waste at home, because they always eat what they order without any food waste.

Interviewee 4 continue by adding that if they have guests over, she always cooks more because she does not want them to go hungry. Interviewee 5 stated that if they go out and eat, the kids would not join and eat at home. However, they make sure that the
kids have food at home, so they can cook. " ...So we always see that there is food in the fridge, so they can cook for themselves". Interviewee $7 \& 8$ stated that the food at home would not be affected. Interviewee 8: No, because normally when we eat out, it is because we don't want to cook, because we haven't cooked anything (therefore, no food waste). Interviewee 8, furthermore, stated that when they decide to go out, they ensure that the children knows that eating out is a privilege. Interviewee, 9 , also stated that eating out does not affect food waste at home.

### 4.2.6 Managing leftovers

## ML. 1 How do you manage leftovers? Why, how, when, where, and what?

When asked about managing leftover, all the interviewees stated that they stored the leftovers in the fridge and/or freezer. Some interviewees stated that this is because they consume a lot of food based on their children's eating habits and needs. The consensus between the interviewees is that they usually store the leftovers in the fridge and, if need be, in the freezer. Even though Interviewee 2 said she saves some food, she also stated that"...it's a bit embarrassing, but sometimes we just throw food away because it's more convenient". Interviewee 3 stated that she only stores leftovers in the fridge, "...just a fridge because two or three days is okay. I never freeze it. I only did once when I travelled for three weeks. It doesn't happen too often" Interviewee 4 stated that if they have leftovers, her husband, or her kids eats it, unless it gets too old. Interviewee 6 stated that "...when we have leftovers, we eat it or if we don't manage to eat it, for some reason, we put it in the freezer, and we have that for later on."

Interviewee 7 said, "... I try to avoid throwing away food, instead I take the leftovers to work. I can say that it doesn't happen very often that we freeze food because we are, as said, so many and what ever is left, I take with me to the job.

Interviewee 8 said regarding leftovers, "... we also try to eat the leftovers over a couple of days. So we don't waste so much. That's very important for us. Also, to be more creative, if you have some leftovers you can use the leftovers in another way. For example, if you have some chicken, so if you have your if you've add some bread with it, maybe you can make the rice the next day or more be more creative. So you really use what's leftover."

Based on the target group for the interviewees, it is arguably that this target group stores the leftovers in the fridge due to the high amount of food being consumed in a household that have multiple generations with different needs and commitments.

### 4.2.7 Assessing edibility

How do you assess edibility? Smell, Look, Touch, Best before date, tracking how long it's been opened, other?

This question was answered in a consensus regarding that they did all assess edibility from smell, look, touch, best before dates and how long it has been opened. When fur-
ther inquiries were conducted, it is clear that dairy products are being assessed by a first "best before assessment" then validated by smell and look. Interviewee 2 admitted that she is usually assessing food primarily by "best before dates", still clarifying that she tries to assess food by other measures. Other fresh products are being assessed by look, touch and smells before being discarded. Regarding milk that's passed its due date, interviewee 3 stated that "I would smell it and check in but often, then I would actually throw it away, even though it's like does feed it for days, and it's unopened, then it's okay. But if it's open, I might depend on how much it is. Because, if it's very little, there is okay. But it's more than maybe we can take it out and try and see if we can make something with it."

Interviewee 4 stated that she uses taste for dairy products (unless it is several weeks old), but for meat for example, she looks at it. Interviewee 5 clearly stated that he assesses all the groceries by smell, touch, and look and disregards the "best before dates". Interviewee 5 further differentiates assessing food at home and assessing food at grocery stores; "... with the eyes, I don't like it when people squeeze fruits at grocery shop". Interviewee 7 stated that usually looks at the food and assesses it from that. Interviewee 8 further clarified that the consensus of assessing food is by the smell, look, touch, and feel and not the best before dates. Interviewee 9 said, "If food like bread has a green spot, I throw it away. Definitely. Other food I actually smell or maybe taste".

### 4.2.8 Ending - Final questions

## EF. 1 What do you think is your biggest "food waste" factor? i.e., why do you have food waste?

The results from the last question of the interview part was to get an understanding of what the interviewees thought that their biggest food waste factor was. Interviewee 1 stated that they don't have any food waste. When pushed based on previous answers, interviewee one stated that it depends on the kids' mood, they might throw away food or be a reason to throw away food based on societal circumstances. Interviewee 2 stated that time is the biggest food waste contributor for her family. The day-to-day life comes in between and causes plans to fall through. Interviewee 3 stated that the reason for them having food waste is that they forget that they bought a certain item of food, thus it goes to waste due to the fact that they forget that they bought said item.

Interviewee 4 stated that the lack of planning is the main reason. She said that she buys some groceries just to be sure that she does not run out of groceries. For example, soured milk, they consume it a lot, therefore she always purchases that without checking if they have it at home or not. Regarding the economical cause for food waste, she says: "...Soured milk, what does that cost? Not that much, so it's worse to not have it at home than spend a few crowns extra". Additionally, she stated that lack of communication is an issue because both she and her husband sometimes grocery shops on the way home from work.

Interviewee 5 clearly stated that he and his family did not have any food waste, so when asked about what he thought his nearest circle the biggest food waste factor was,
he stated that he thought it was a lack of knowledge. Interviewee 6 stated: "I would say the fact that our kids doesn't finish. That is one thing. I would say also that sometimes when you know the fridge is full, and something might become hidden behind something else, and you forget that you have it there or in the bottom of the vegetables' drawer". Interviewee 7 stated that their biggest factor regarding food waste is that they purchase too much and throws away the leftovers, i.e., the expired food.

Interviewee 8 stated the biggest reason for her family throwing away food is that they misjudge how much food is needed for dinners based on the kid's eating habits. Interviewee 9 stated that "When I, when I'm shopping, I buy always buy a lot of vegetables, we're always having salad for dinner. Sometimes the pepper maybe are in storage for a long time. So it has green and black parts. And then that's why I throw it away. But sometimes they buy a little too much of it."

## EF. 2 How can you change that?

Interview 1 stated that she needs to wake up early, "Yeah. Let's wake up early. So I have a lot of time, but that means I need to wake up half an hour." Interviewee 2 stated that she could plan better. Interviewee 3 argued that she could be more available, "Yeah, actually, yeah. I mean, of course more, be more available. It's like be more alert in these situations. But my husband was very good at it because he is, even more than me, doesn't want to waste anything."

Interviewee 4 said that in order to change that, she can look in the fridge before shopping. Interviewee 5 stated that people in general should be more adhering to the issue and try to educate themselves. Interviewee 6 stated when it comes to the kids, they could probably put less on their plates. Regarding the fridge, it would be easier if it was bigger, that would provide a more clear overview of the food available.

Interviewee 7 stated that they could purchase less in order to prevent food waste in their home. However, they also stated that they've tried that and that conflicts with their everyday life situations. Interviewee 8 stated that it depends on their children. They don't know how much they will eat, thus creating leftovers. They also state that they try to eat all the leftovers, but sometimes fail to eat it all. Interviewee 9 states that "I could maybe buy a little less of it."

### 4.3 Questionnaire Results

This section will present the results that we received from the online questionnaire. We received 103 responses in total and $7.8 \%$ did not fit the description "Family living in the Öresund ${ }^{1}$ region with children at home where both parents are working" which was included as a way to ensure that our respondents fit into the target sample and, in extension, the scope of this thesis. If they responded 'No', they were prompted to submit the survey without going any further. The remaining $92.2 \%$ fit the criteria and proceeded to the next questions. Figure 4.2 is presenting the results of this question.

## 103 responses



Figure 4.2: I fit the description, "Family living in the Öresund region with children at home where both parents are working".

After the control question about the criteria, the respondents were asked if they had ever groceries online and $28.4 \%$ said that they had, while $71.6 \%$ said that they hadn't. Figure 4.3 is showing the results.

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Figure 4.3: Have you ever shopped groceries online more than once from big stores, for example, Ica, Mathem, Willy's etc. (excluding services like Hello Fresh)?

The respondents, who had answered in the previous question that they had used the online grocery shopping option, were prompted to answer why they used that option, and we received a mixture of responses. $33.3 \%$ picked the option "Convenience" while only $7.4 \%$ said that it was for saving money. The majority of respondents said that shopping online saved time, and it was faster than going to a grocery store. $29.6 \%$ stated that they chose to shop online because it was fun to try new options. 2 respondents picked the option "other" and one of them stated that it was because of COVID-19, while the other said that "To order groceries online is the need of the hour as it was next to impossible to leave home with small kids." Figure 4.4 presents a complete overview.


Figure 4.4: If Yes, Please tell us why.

Respondents who had not previously tried the online grocery shopping option had various reasons for that. $38.2 \%$ replied that they liked to grocery shop themselves. $44.1 \%$ were afraid that they might get worse groceries than if they picked themselves. $17.6 \%$ thought that it was a hassle to use online platforms, while $10.3 \%$ believed that it was more expensive. Figure 4.5 shows the complete overview.


Figure 4.5: If No, please tell us why.

When asking the question if they would be willing to adopt the option of grocery shopping online if they were guaranteed to get the best possible products, the majority at $85.3 \%$ replied that they would be willing. $14.7 \%$ said that they wouldn't be willing to adopt it. Figure 4.6 presents the results.


Figure 4.6: If No, are you open to adopting this option in the future if you are guaranteed the quality of the fresh products, longest 'best before date' available, etc.?

## Chapter 5

## Discussion

This chapter discusses the background provided in the thesis, as well as the results gathered through the methodologies described in chapter 3.

The food waste topic has been relevant for centuries, as stated by (Evans and Lewis, 2018). The topic has historically been important based on societal situations. As can be seen, today, food waste is affecting multiple areas of the sustainability goals (UNDP, n.d.). The sustainability goals most affected by food waste are the Societal, Economical and Environmental. But reaching or solving one of food waste related sustainability goals is tricky and contradictory. Having zero emissions from food production and consumption would have a devastating effect on the economical and in extension societal sustainability aspects of food waste. Papargyropoulou et al. (2014) argues that the economic impact of food waste results in increasing food prices, which arguably is a negative impact for the most vulnerable people, yet it has the possibility to alleviate poverty and inequalities in areas where poor people are net food producers (Dimova, 2015). Furthermore, higher food prices may generate new jobs that can improve welfare. Some of the new jobs that the food waste issues have generated are the innovations and new approaches to food purchases and the prevention of food waste. Both the ICA group (ICA, 2022) and Axfood, with Willy's as their flagship store (Willys, 2022) have online food purchasing services, thus have expanded since the consumer behaviours and technology advanced. Both companies have achieved stable market shares and are prominent players in the Swedish food retail market (Statista, 2022). However, there is no evidence that the advancement of online retailing have anything to do with food waste prevention, yet both website states that they are working towards a more sustainable future.

Regarding the market research conducted in order to identify existing solutions that actually tries to address the food waste issues in private households, only one OLIO (n.d.), seemed to have reached traction and popularity. However, notably is that OLIO (n.d.) targets both businesses and private households, which could indicate that applications that solely try to prevent food waste in private homes are not lucrative enough, or might have the potential to be so in the future.

Contrary to the evidence of innovations not being lucrative enough, the academic research regarding food waste is prominent and promising. The Food Waste Hierarchy (Papargyropoulou et al., 2014) provides a good overview of the different stages regarding food waste and where it is most promising to prevent it. According to Papargy-
ropoulou et al. (2014), the best possible option to tackle food waste is in the prevention stage and the least favourable is disposal. According to our market research, the applications found are at best covering the prepare for re-use level of the favourable options. Arguably, the food waste hierarchy is a disputed discussion topic in regard to what it should and could contain. Giordano et al. (2020) highlighted that further research is needed, whilst Luthfina and Kirana Rukmayuninda (2020) argues for that it should be used to formulate strategies to manage food waste at household levels.

Our interviewees were all aware of how important food waste was, and most of them tried hard to avoid it. Interviewee 1 would try to come up with alternative ways to use any food that was going to expire or go bad soon. Interviewee 3 actively tried to reduce food waste in their household because of the religious aspects. Interviewee 6 understood that it was a shame to throw away so much food when we had so many people that are going hungry every day, and it was our responsibility to reduce it. It was evident that in most of the households, apart from interviewee 2, the food waste was minimal, but there were clear contributing factors to this small amount of food waste. According to our interviewees, the problem had its roots in planning poorly and shopping more than one actually needed.

When the planning phase was discussed, the interviewees had good idea on how it should be done. Most of them tried to have a list of groceries in their phones or on paper to help them shop. Interviewee 3 had different lists for different shops, and sometimes in the order in which they were arranged in the store. Despite the extensive lists, she stated that they sometimes ended up buying things that they already had at home, and that was the biggest food waste factor in their household. This is interesting because Sarkovska and Chytkova (2019) found in their research that utilizing grocery lists minimize the effort needed to plan for groceries, thus leading to less food waste. Interviewee 5 didn't make a list, but he still knew what they needed in their house, and he tended to shop from his head. He further stated that he liked to shop quite frequently which, as per Schanes et al. (2018) could, and in interviewee 5's case did, contribute towards having less food waste. Interviewee 6, based on what they needed, liked to shop online from the comfort of her own home. On the other hand, even though people understood the importance of lists, also argued by Block et al. (2016), sometimes it was ignored. Interviewee 1, 2 and 4 didn't plan extensively and just visited a grocery store based on different factors. It could be that they had a couple of things to buy, and then they would end up shopping groceries for a whole week by just going through each aisle and seeing what they needed based on memory. Another factor could be that they realized that they needed food by looking at the rather empty fridge and just decided to do a grocery shopping without any further planning and list. Time constraint was also a contributing factor to shopping without any prior planning for the required groceries, and interviewee 2 attributed this as the biggest contributing factor to their household waste. Schanes et al. (2018) connected time-constraints to over-provisioning, which was confirmed by our interviewees as well.

There was interesting insight as some interviewees stated that weekly advertisements from different stores dictated which store they would visit and what groceries they would buy for that specific week. So it can be understood that in such cases, the plan-
ning was partially dependent on what they actually needed as well as on what was on sale during that specific week. These results were in line with what Block et al. (2016) wrote about regarding consumer bias in the consumer acquisition stage of The Squander Sequence in fig 2.3.

From the 9 interviews that we conducted, 6 reported they had some kind of system to plan for grocery shopping, it could be scanning through weekly advertisements, having progressive lists, either in their heads or phones, or making a quick list of everything that they needed when it was time to go grocery shopping. Majority of the interviewees were also aware of what they were missing in their respective fridges and pantries, but not all of them especially checked while planning. So sometimes it was a guessing game, while other times, it was carefully planned. Interestingly, Block et al. (2016) research clearly stated that consumers were "notoriously poor planners", which could indicate that the consumer's own perception of their planning abilities might not correlate with reality. Regarding meal plan and meal budget, almost none of our interviewees had either of them except for interviewees 7 and 8 who did have a meal budget, but it wasn't anything set in stone and could easily have been adjusted based on need, which sort of negated the whole concept of food budget if it wasn't something strict that they had to stick to. Interview 9 had a useful insight into having a food budget, as it could stop one from doing any impulsive shopping. Some interviewees also agreed that having an adequate plan for grocery shopping could definitely reduce food waste. The interviewee thoughts regarding a meal plan and food budget is in correlation with the findings from Schanes et al. (2018).

A solution to avoid the planning issues as identified in the planning section of our interviews, Sarkovska and Chytkova (2019) had concluded in their research that online shopping was defined by its time efficiency and saving, therefore it could be argued that online shopping could ease in the planning stage of household food consumption. Additionally, Heidenstrøm and Hebrok (2022) stated that when shopping online, the planning phase shifted from "at store planning" to "at home planning", thus enabled a more convenient way to check pantries and fridges.

When it was time to do the actual shopping, our interviewees had very interesting behaviours. If they had a list, then they would usually start by shopping items from that list, but that was not all. Some of them, almost always, got sidetracked and ended up buying more than what they had actually planned. That might be because of simple urges or impulses, they saw something that they wanted and bought it, and because they didn't have a food budget and all of them were reported to be comfortable with their financial situation, they didn't have to think twice about it. This is interesting, because we did not actively choose participants based on financial situation. Multiple interviewees highlighted that they never followed their respective shopping lists exclusively, and at the end of each visit, there were always items in their baskets that they had not planned to buy. Several interviewees stated that the food waste in their household had its roots in buying extra things, in case they might be needed, and then they went to waste because they got too old and/or forgotten. This was in line with, Sarkovska and Chytkova (2019) which stated that shopping in physical stores might result in buying things that one 'might' have needed but not 'actually' required. This was further con-
firmed by Block et al. (2016) as stores intentionally tried to devise strategies that would prompt their shoppers to spend more in their stores, which eventually led to more food waste in their respective households. Lack of communication between spouses while shopping was also reported by our interviewees as one of the contributing factors towards food waste, which is also defined by Schanes et al. (2018) as a food waste factor.

Another reported factor was buying more, or extra in order to avail the 3 for 2 or other similar offers, but our interviewees were generally conscious about buying only the things that they knew that they would use and not buy simply because it was on sale. As it was so helpfully stated by interviewee 8, "Sometimes it is expensive to be cheap". As all of our interviewees reported to be financially comfortable and had no food budgets to adhere to, they tended to spend a great deal of money on food, but still only bought what they could use which contradicted the findings from Schanes et al. (2018) which stated that households that tended to spend more money on food were more prone to waste food as a result of 3 for 2 or similar offers. Moreover, according to Hei denstrøm and Hebrok (2022) the in store planning, in comparison to online shopping (at home planning) could have a negative effect on food waste in private households. Our interviewees stated that shopping online can reduce food waste in private homes, which is usually a result of overbuying or impulsive shopping in physical stores. This was further confirmed by Block et al. (2016).

Based on the discussion thus far, it can be deducted that in store planning and shopping were identified as the areas where the interviewees were facing most challenges, along with planning for their grocery store visits beforehand.

The 'Good provider identity' is mentioned as a strong contributor to food waste in Schanes et al. (2018) as it prompts the parents or care takers to buy more or extra when it comes to healthy alternatives, but we did not find any strong evidence from our interviewees that that was the case in their households. Almost all the interviewees concurred that they usually buy and cook what their children liked to eat. Even though they did try to squeeze more healthy options in, it did not increase the food waste in their homes to any mentionable extent.

When talking about any time constraints, most of the interviewees that they are often pressed for time due to their busy work and personal lives. Even though they are often stressed about time, their shopping behaviours differed a great deal. The majority of the Interviewees argued that they bought exactly what they needed, or sometimes even less if they were stressed. This contradicts with our findings in Schanes et al. (2018) which stated that any perceived stress about time can result in over provisioning. On the other hand, Interviewee 2 and 4 tended to buy extra when they were stressed, thus agreeing with Schanes et al. (2018). To summarize, time constraints did not have a strong impact on a majority of our interviewee's shopping behaviours, hence could not be accredited as a contributing factor towards food waste in private households.

All interviewees had a storing system where they stored based on the types of products that they shopped. They were aware of which unprocessed product should go where in terms of fridge, freezer, and pantry. However, most of them didn't organize
systematically based on the 'age of a product' which was described in Schanes et al. (2018) as a helpful way to keep track of groceries in one's fridge and therefore, could have helped with reducing food waste. Here, it could be argued that some food waste in the interviewees' respective households might have come from this behaviour where incoming products after a grocery store visit were not going to the back of the fridge, so that the older products could have been used first and would not have to be thrown out after being forgotten and turning inedible in the meantime. However, based on the interviewee responses, it was hard to verify this argument.

Cooking seemed to be of no issue for any of the interviewees, as all of them seemed to cook what they liked and at a frequency that they could maintain. Some of them improvised so that they could use what was available, while some stuck to the 'tried and tested' approach, but all of them cooked extra, so the leftovers could be eaten in the coming days. Even though, they preferred to cook less frequently because of their busy work and personal lives and tended to cook more than needed in one day, there was hardly any waste of cooked or processed food reported by any of the interviewees which contradicted Schanes et al. (2018) which reported that cooking more frequently tended to reduce food waste in private households. This was further confirmed by the interviewees when their routines for managing leftovers were explored. The majority of the interviewees described that they almost never threw away processed food because they either froze it, reused it to create some dish or used it as it was for lunch or dinner in the coming days. This was in line with Schanes et al. (2018) as reusing leftovers was regarded as being a good strategy to avoid food waste. Here it can be deducted that when one has spent time on cooking something, it is harder to throw that away because they are more invested in the food, and it was also in line with what Block et al. (2016) had discovered. But the same couldn't be said about the unprocessed food. As established previously, lack of a meal budget and the fact that all the interviewees were reported to be financially comfortable, they tended to buy more in their grocery shop visits than they actually needed so, some products were bound to be forgotten or never used and would eventually had to go to waste. Based on the described behaviour, unprocessed food going to waste could be identified as the area with potential for improvement.

When asked about eating habits, all interviewees stated that they "at least tried" to eat dinner together as families. It was found that because of their everyday lives, after work or school commitments, it was difficult to plan and prioritize family dinners. Our findings regarding eating habits further revealed that the majority of our interviewees did not see a connection between food waste and their children. A finding proposed by Schanes et al. (2018) is that eating out is a contributing factor towards food waste at home in the sense that when one ate out, the groceries at home had a higher risk of turning bad, thus, eating out generated food waste in private homes. The results from our interviewee section showed that most of the interviewees do not think that in their different situations, eating out had any effect on the food waste at home.

As suggested by Block et al. (2016), edibility assessment is highly related to food safety. The research suggested that consumers tended to throw away perfectly good food based on aesthetic characteristics. For example, if food packaging was damaged
or fresh products smell bad, it tended to be thrown away regardless if it was usable or not. Based on our interviews, we had found that if a product had a "best before date" label, it worked as only an indicator of whether a food should be further analysed or not. If a product did not have the best before date, it was analysed by look touch and smell. Research also suggested that there was a knowledge gap regarding how to take care of processed and unprocessed food (Edjabou et al., 2016), however, we did not find any evidence that supported that claim based on the interviews.

Three out of nine interviewees stated clearly that purchasing less would have a positive impact on their food waste, and based on their responses from the online shopping question, all of them said that shopping online would make them buy less because there won't be as much impulsive shopping involved resulting in more conscious and mindful purchasing decisions.

Shopping online has been regarded as a useful way in reducing household waste ( Hei denstrøm and Hebrok, 2022), since the biggest factor creating household food waste is the planning stage (Schanes et al., 2018). Online shopping is proven by Sarkovska and Chytkova (2019), Heidenstrøm and Hebrok (2022) and Anshu et al. (2022) to aid in the planning and shopping phase of the consumer household food chain. All the interviewees, when asked about online grocery shopping, believed that online food purchases would result in less food waste. The reasoning behind that is the aforementioned result that, when shopping online, customers only shop what they need, and are less inclined to fall for in store offers and other selling strategies.

However, online shopping has also been argued to produce somewhat more food waste than physical grocery shopping (Ilyuk, 2018). At the same time, when effort had been put into comparing and selecting products in online stores, consumers were less inclined to throw away food with no significant differences between intention towards waste in online and in store shopping experiences (Ilyuk, 2018). This could be interpreted as if consumers are to put some effort into comparing and selecting groceries in online stores, then they would not waste any more than if they had bought the items in physical stores, but it will greatly reduce the stress with the planning and shopping phases.

The questionnaire respondents, who said that they had shopped online before, highlighted 3 main reasons for doing that. $33.3 \%$ stated that they shopped online due to convenience. Anshu et al. (2022) argued that online shopping gives the customer a more convenient (and discrete) shopping experience, which correlates with our questionnaire results. $48.1 \%$ stated that the time saving abilities of online grocery shopping were the main reason. Sarkovska and Chytkova (2019) found that online shoppers tend to spend less time comparing products and thus are more likely to spend less time grocery shopping, as well as, save time and money due to the fact that they buy only what they need and are not influenced by in store offers. The benefits are argued to be due to the different online store functions available, such as my favourites that allows costumers to save grocery lists. $29.6 \%$ of our questionnaire respondents stated that it was fun to try new options. Notably, only $7.4 \%$ stated it is because of saving money, which is in line with that Chu et al. (2010) found out when comparing online and offline grocery shopping channels, yet Sarkovska and Chytkova (2019) research found that saving money was one of the benefits of shopping groceries online.

Regarding online shopping, our interview results show that the reason for not shopping online was deriving from personal belief and tradition. Interviewee $7 \& 9$ stated that they liked to shop themselves and did not trust that they would get good groceries. Interviewee 8 explained that she appreciated assessing the groceries that she was purchasing. This fact was further solidified by our questionnaire respondents, as the majority of the respondents at $44.1 \%$ answered that the reason they never chose to shopped online was because they were afraid that they would not get the best possible grocery options. Moreover, our results also showed that for some interviewees, going to the grocery store and purchasing food was viewed as "me time" and was attributed to them having a chance to relax between work and the role of being a parent. This might be interpreted as a contributing factor towards getting the second-highest response rate where $38.2 \%$ of the people who never shopped online, did that because they liked going to the grocery store themselves. Regarding meal box schemes, a couple of the interviewees had tried them but stopped using them as they were too expensive to be retained in the long term, which is interesting as none of the interviewees reported that money was an issue, and they were all financially comfortable. On the other hand, they also mentioned that despite them being comfortable in their households, they still liked to be sensible about how they spent their money, which brings us to the understanding that services like "Hello Fresh" might not be the best way to buy groceries online. Moreover, Heidenstrøm and Hebrok (2022) argued in their paper that utilizing meal box schemes required a lot of time-consuming tweaking and integration in the everyday life of the user, which arguably could be one of the reasons our interviewees, who had tried the meal box schemes, did not like them.

Only $17.6 \%$ stated that using online platforms is a hassle. This positive mindset towards digital tools was reflected in our interviewees responses as well, where they reported to be rather comfortable using digital tools in different capacities. More and more people are leaning towards using digital tools to cater various needs, and shopping groceries via an app or something similar shouldn't be anything different. Notably, the questionnaire were sent and answered digitally, thus it could be argued that the participants were fairly comfortable utilizing digital tools.

As respondents' fear of not getting the best quality for their money if they shopped online, turned out to be the biggest factor for their resistance towards online shopping, when they were asked if they would adopt this option if they were guaranteed the quality of fresh products, for example, the longest "best before date", etc. $85.3 \%$ said that they would try online grocery shopping, thus highlighting the need for an application that could be as similar to in-store shopping experience as possible.

### 5.1 Findings \& Hypothesis

Based on the acquired results and the related work research, we have clearly identified two areas with potential for improvements, i.e., Planning and Shopping (Chu et al., 2010), (Anshu et al., 2022), (Heidenstrøm and Hebrok, 2022), (Ilyuk, 2018), and (Sarkovska and Chytkova, 2019). The findings are presented below in detail:

- People struggles with planning properly before going grocery shopping.
- They might end up buying stuff they already had at home.
- People get sidetracked by offers and in store selling strategies.
- Impulsively buy products that they don't really need.
- Most of the 'extra' food bought while shopping gets thrown out before ever being used.
- People believe that moving to online shopping will help with planning properly and impulsive buying.
- Online food shopping provides a solution to the planning and shopping phase of the consumption stage (Chu et al., 2010), (Heidenstrøm and Hebrok, 2022), (Ilyuk, 2018), and (Sarkovska and Chytkova, 2019).
- As a result, not much food waste will happen in consumers' households.
- Once online purchases of food is integrated within the daily routines of the customers, it is very likely to decrease food waste in consumer households (Heidenstrøm and Hebrok, 2022).
- People are sceptical about moving to online shopping because they are afraid that they will not get the best quality for their money.
- There is a gap between shopping experience in physical stores and online stores (also stated by (Chu et al., 2010) and (Sarkovska and Chytkova, 2019)).
- If the quality is guaranteed, they will try online shopping, buy less and throw less.


### 5.1.1 Hypothesis

By looking at the findings, we hypothesize that if online grocery stores provide a similar experience as to offline stores, more people will shop online which will reduce their impulsive and over buying and will consequently reduce food waste in their households.

## Chapter 6

## Human-Centred Design

In order to explore our hypothesis, we are designing an online shopping portal that bridges the existing gap between the two shopping experiences i.e., Online and Offline (in store) shopping and provide the consumers a way to shop online as they would do in physical stores. A Human-centred design framework will be used to assist us in this process, "Human-centred design is a framework that integrates a set of practices to understand users their needs, constraints, contexts, behaviours, and wants so that you can build deep empathy with them, generate multiple ideas to help solve their problems, and arrive at a solution via rapid prototyping" (invisionapp, n.d.). Human Centred Design includes the following subsections:

- Define.
- Ideate.
- Prototype.
- Implement.

The reason for using this approach is partially because our entire research fits within the first two sections i.e., Define \& Ideate, and also, to take guidance for designing a prototype that validates our hypothesis.

### 6.1 Define

In this phase, the focus is put on understanding the users and exploring their needs (invisionapp, n.d.). This has been achieved via semi-structured interviews and online questionnaire. The results proved useful in regard to understanding what the consumers wanted in order to start shopping online, as well as the reasons for not shopping online today. The findings can be seen in detail in chapter 4.

### 6.2 Ideate

The collected data is synthesized so that it makes sense in relation to what has been learned in the Define Phase (invisionapp, n.d.). A common way to do this is by grouping similar ideas and identifying themes (invisionapp, n.d.). In our thesis, we have achieved
that by using 'Thematic Analysis' where we identified pattern and themes in the data collected from the interviewees and questionnaire. More details can be seen in chapter 5.

### 6.3 Prototype and Test

Based on the HCD, this section will focus on the prototype phase of the human centred design approach. Prototypes are low cost envisions of how a finished product might look like (invisionapp, n.d.), and serves as a way to convey ideas and/or evaluate them. One popular way to build a prototype is to use the technique called "Wizard of Oz" which can be used to mimic a system without having to build it (Norman, 2013). It can be a very useful tool in the early stages of product development (Norman, 2013), which is why this approach has been used for the development of our application.

### 6.3.1 Design Guidelines

Multiple UX design related guidelines and materials were utilized in order to incorporate the findings from our thesis into the design proposal for online grocery stores. These guidelines and materials are presented below:

## Usability Heuristics

In order to understand how and why the user felt the way they did, the argumentations regarding usability heuristics (Kaley, 2018) were used. In her article, Kaley (2018) states that users should always understand meaning without having to google for answers. The article also highlights that "...an interaction that mimics one from the physical world, capitalizes on people's existing knowledge and helps them easily learn an interface with no need for training". The reason for that is that people build mental models or theoretical prerequisition on how a system should work based on their past experiences with "real world" objects. Users expect that UI (user interface) elements, which reflect material objects, to be similar to real world objects (Kaley, 2018). Additionally, Kaley (2018) argues that awareness discrepancies can cause real problems for users if objects in the interface don't align to their version of reality. This heuristic also applies to how a digital experience makes the users feel and their expectations for a process. To conclude, her article Kaley (2018) states that all parts of the described heuristics need to work together in order for the experience to succeed.

## WCAG - Web Content Accessibility Guidelines

To further validate that our decision to design an online shopping experience is suitable and up to date in reference to the current design standards, the Web Content Accessibility Guidelines (WAI, n.d.) were regarded in order to establish that our design met the international accessibility criteria.

The Web Content Accessibility Guidelines' (WAI, n.d.) four principles of accessibility are:

- Perceivable - Information and user interface components must be presentable to users in ways they can perceive.
- Operable - User interface components and navigation must be operable.
- Understandable - Information and the operation of user interface must be understandable.
- Robust - Content must be robust enough that it can be interpreted reliably by a wide variety of user agents, including assistive technologies.


## Google Material Design

In order to ensure that our designs met the four principles of accessibility, our design utilized Google Material Design for icons, symbols, and layout (Google, n.d.). The reason for using material design is that it arguably is the one of the most renowned design system used by companies today (Yew et al., 2020). Yew et al. (2020) states that from the 13 design systems analysed, the most popular is Google's "Material Design", the second most popular is "in-house built design systems" and the third most popular is Apple's "Human Interface Guidelines". Interestingly, in their study, Yew et al. (2020) found that Material Design were used as a basis for 9 out of 11 in house build design systems.

## Tools

The tool 'Figma' was used to create the prototype. Figma is an online based collaborative interface design tool. According to Yew et al. (2020), it is the second most popular design tool available.

### 6.3.2 How current apps look

In order to get a relevant and useful prototype, it is vital for us to get an understanding of the current state of online stores which is presented in this section. We analysed the two grocery stores with the biggest market shares in Sweden, according to Statista (2022). In our analysis, we compared the mobile versions of the grocery store's online interface, since mobile shopping is becoming the predominant online shopping measure (Ouellette, 2022).

In figure 6.1 the most popular grocery shopping alternatives in Sweden are depicted (Statista, 2022). As can be understood from our interviews and our questionnaire, the main reason in our target group for not utilizing these applications is that they do not trust that they will provide an equally good shopping experience.

In our background section, Chu et al. (2010) states that the online grocery shopping experience should be an extension of the physical grocery shopping experience. This is argued by the Kaley (2018) as well. However, in the existing design (shown in Figure 6.1), we can not see the offline grocery store characteristics that are described in our result section, i.e., that the analysed target group wants to be able to inspect the groceries or to ensure in some way that they receive equally good groceries as they would get if they shopped in the physical store. Based on the guidelines from Kaley
(2018), the opportunity to design in a way that is suitable for consumers' needs, is being missed. That is due to the fact that the existing interface doesn't align with our target group's version of reality. Additionally, it can be argued that the first goal for accessibility (WAI, n.d.) have not been met by the stores in question. Arguably, the users understand the information being presented, yet they don't trust it.


Figure 6.1: Snapshot of Mobile stores: Ica (left) (ICA, 2022) \& Willys (right) (Willys, 2022)

### 6.3.3 Our proposal

Based on our findings from the background section, results discussion and the UX related guidelines provided, we have designed a proposal on how a grocery store could look like in order to fill the gap and meet the desired accessibility requirements from our target group.

Our designs are based on the criteriums stated above and are solely based on our research results and academic literature, because UX professionals should "never assume that our own interpretations and understanding of words or objects match those
of our users" (Kaley, 2018). We have also followed the guidelines provided by WAI (n.d.) by acknowledging the desires to have perceivable, operable, understandable and robust design in applications created.

The main reason that our target group did not shop online is that they did not get the opportunity to assess the groceries as they would have done in a physical grocery store. In order to meet the offline store criteria, concluded by our findings, we came up with the idea that the users should be able to evaluate groceries online as they are doing in physical stores (Chu et al., 2010), in light of what Kaley (2018) argued when talking about interactions that they should mimic the physical world in order to help users to learn interfaces.

With keeping this and WAI (n.d.) in mind, we have created an interface that allows the user to see, assess, and pick groceries, as they would do in a physical store, but in a way suited to online interfaces.

In a physical store, when you are shopping, for example, for milk, the interviewees said that they always looked for the longest "best before date" possible. When they shopped for fruits, they looked for the most aesthetically appealing ones. To design for this, we came up with the idea that the users could be given similar options when purchasing online. For the purpose of this design chapter, we have used boxed products with clear expiry dates as a way to convey the ideas. However, the ideas can be extended to all products, with minor alterations. The initial idea, regarding boxed products, is presented below:

- A discounted offer which allows the consumer to buy products that are about to expire soon at a discounted price.
- Premium offer that will ensure that the longest 'best before date' will be delivered at a higher than standard price.
- Standard offer Neither the shortest nor the longest date, a standard offer at the normal price (i.e., the (only) option available online today).

In our mind, that would be beneficial both for the store and the customers. The stores would get to move most of their merchandise without having to throw anything out, while the customers get to assess before they buy (as they do in physical stores).

## Design details

When creating our designs, we realized that having three options to purchase an item were simply too much clicking, would not provide a smooth user experience and would result in a cluttered user interface. When reevaluating this design decision, we decided that having a single option to choose a "lesser regarded" grocery at a discounted price still provides the assessment ability that was lacking in the current online stores as per our research. I.e., one gets to choose between a discounted product and a standard product, thus, assessing between two options before buying.


Figure 6.2: The browsing option, showcased in a "weekly offer" section.

$$
\equiv \text { KassaNova }
$$

$\square$
.> Kylvaror > Mjölk


Mjölk 1.5 I
Skånemejerier
$17,90 \mathrm{kr}$
Jfr-pris $11,93 \mathrm{kr} / \mathrm{l}$


Figure 6.3: Milk with standard price.

$$
\equiv \text { KassaNova }
$$

...> Kylvaror > Mjölk > Kort Datum


Figure 6.4: Milk with discounted price

$$
\equiv \text { KassaNova }
$$



Jane Doe

## Köppreferenser

| $\square$ Spara Leveranssätt |  |
| :--- | :--- |
| $\square$ Välj alltid "Rädda Mat" |  |
| $\square$ Spara mina inköpslistor |  |
| $\square$ Spara Recept |  |
| $\square$ Dölj 3 för 2 | (i) |
| Leveransalternativ |  |
| Hemleverans |  |
| Utlämningsställe |  |
| Hämta i butik | $>$ |

Betalningsalternativ

Figure 6.5: Preference section highlighting options available.

For each product that the consumer wants to view, the options will be presented in a similar way as in the physical store. For example, when shopping for milk in physical stores, one can see a variety of 'Best before' dates and one chooses based on their preference. This option was not available in the existing online stores. Our design, if implemented, changes that. If a consumer wants to view milk, they can click on it from the main screen as shown in figure 6.2 , and will be redirected to the next page, either figure 6.3 or figure 6.4 , based on their saved preferences. They will be able to see what options are available and shop accordingly. If they want to buy the milk with regular, meaning relatively longer expiry date (which, based on our 3 ICA store visits on different occasions, turns out to be between 6-10 days) they can do that or if they want to buy the milk with shorter expiry date at a discounted price, then they will be able to do that as well. The 'discounted price' feature, called 'Rädda mat' in this design, is used to (if enabled by the consumer) highlight "lesser regarded" products by showcasing them first in the interface.

In order to make sure that the user gets all the information needed when making the preference decisions, information buttons have been added to provide further clarifications when needed, as shown in figure 6.5. We also added options to have a more user centred experience, so one can make conscious decisions by, for example, hiding " 3 for $2^{\prime \prime}$ or similar bulk-buy offers, so they don't get manipulated into buying more than they had planned. The users will be able to save their preferences so that they will always see the discounted offers first or not. By enabling the option of allowing the user to choose between "rädda mat" options or standard options, we show that the shortcomings of the analysed applications shown in Figure 6.1 can easily be salvaged (from the user's point of view). Based on the guidelines described Kaley (2018) \& WAI (n.d.), interactions were created that mimicked the real world physics of grocery shopping to ensure a smooth and familiar shopping experience. Additionally, our design is in line with what Ilyuk (2018) found, as our proposal would also allow users to put more effort into the shopping if they choose to do so while helping them with their planning and shopping phases.

As of now, based on our research, consumers are fearful that they would get what we have named the 'discounted price' product at full price if they shopped online. With our proposed design, we aim to put some control back into consumers' hands and that they are getting their money's worth, as well as relieving the stress and effort of the planning and shopping phases Schanes et al. (2018).

### 6.3.4 Evaluation

Since this preliminary design is built upon the feedback that originated from the target group itself (as a form of user experience research), and was received through the interviews and questionnaires, no user testing was done at this stage. Instead, we are evaluating the design with keeping the acquired feedback in mind in order to ensure that the design meets the findings of our thesis. One of the most suitable ways to evaluate the design in this context is to utilize an evaluation matrix (Elmansy, 2015), since we want to compare that the design correlates with the findings from the result and discussion chapters.

To assist us in this evaluation process, we have taken the problem statements shown
at the end of chapter 5 . We removed statements that were solely based on academic literature. In the figure 6.6, the first column shows the identified problem areas and the evaluation column discusses if our design achieves a solution for those problem areas. Also, to what probability or likelihood do we see the design helping with the issues is showcased in the third column where a scale of $1-5$ is being used, 1 referring to least likely and 5 referring to most likely.

For example, if we take problem no. 3, 'People get sidetracked by offers and in store selling strategies', then by adding an option to turn off such offers, as shown in 6.5 , there is a higher probability of consumers' not being sidetracked and, as a result, overbuying. Thus, the probability of our solution aiding with the issue in that regard is 5.

| Problem statements | $\quad$ Evaluation | Rating <br> $\mathbf{0 - 5}$ |
| :--- | :--- | :---: |
| People struggle with planning <br> properly before going grocery <br> shopping | As customers shop online from the comfort of their homes, they don't <br> need to have a finished shopping list before they enter a grocery <br> store. | 4 |
| They might end up buying stuff <br> they already had at home | Lesser probability of that happening since they can check the fridge, <br> freezer, and pantry as many times as they want, to ensure that they <br> don't double buy. | 5 |
| People get sidetracked by offers <br> and in store selling strategies. | As they get to turn off such offers in 'preferences' of our application, <br> this issue can be avoided. | 5 |
| Impulsively buy products that <br> they don't really need. | This might happen to some extent, as while scrolling to search for a <br> specific product, they might come across something that they like <br> and want to have. But that frequency of that instance should be much <br> less than the practice of going through each aisle in a grocery store. | 3,5 |
| Most of the 'extra' food bought <br> while shopping gets thrown out <br> before ever being used. | Less or no extra stuff will be bought so food waste should reduce <br> significantly. | 4 |
| People are skeptical about <br> moving to online shopping <br> because they are afraid that <br> they will not get the best quality <br> for their money. | Our design helps with that as they can see the options for products <br> that they intend to buy. They will be able to see different dates for, for <br> example, milk and they can decide what they want to have. This <br> option was missing in the existing design which was the root of <br> scepticism on the consumer's part. | 5 |
|  | Through our design, they will be able to assess the product before <br> they buy, which should help with their preconceptions and fear about <br> getting worse groceries than if they had shopped themselves in the <br> store. That being said, we of course, realize that the design is not <br> enough to guarantee the quality of the products, grocery stores and <br> their employees will have to work actively to ensure that they comply <br> with consumers' preferences each time they pack an order. | 4 |
| If quality is guaranteed, they wile <br> try online shopping, buy less <br> and throw less. | 4 |  |

Figure 6.6: Evaluation Matrix.

### 6.4 Implement

According to the Human-Centred Design approach (invisionapp, n.d.), a product, or feature, is launched to the public in this phase of the design. User tests need to be conducted before this design can be implemented. Testing should be conducted to understand the problem as well as to ensure that the new design would meet the needs and abilities of those who will use it (Norman, 2013). Through this research, we have already identified problems with existing practices, but before the design can be implemented, user testing should be done to understand and further improve the design.

Before launching this design, it would be a good idea to understand how well the interface (Rubin and Chisnell, 2008):

- Supports user's tasks within a goal.
- Communicates the intended workflow.
- Allows the users to navigate from screen to screen and within a screen.

This could be done by performing tests on a small of group of people, ideally 5 to begin with, who relate as closely as possible to the target population (Norman, 2013). The researchers should observe how test subjects interact with the design and ask questions in order to isolate areas for improvement (Norman, 2013).

## Chapter 7

## Conclusions and Future Work

This chapter concludes the thesis by answering the research questions, highlights the contributions as well as possibilities for future work.

World hunger has been an issue for a long time, even though the global food production can feed the world's hungry twice if necessary. So the problem is not that we can't produce enough to feed our hungry, the issue lies some place else. During our exploration, we discovered that one third of the total food that is produced, goes to waste at different stages of food supply chain and food waste or food loss is highest in developed regions like Europe where $30 \%$ to $50 \%$ of food supplies are discarded. Private households represent the largest food waste faction and in Sweden, 70\% of the total food waste is being contributed by private households. So it can be assumed that if food waste was to be reduced in private households in Sweden, a huge amount of food can be saved from going to waste, providing positive effects towards reaching the sustainability guidelines ( $U N D P$, n.d.).

This research aimed to identify factors contributing to food waste in private households in Skåne county and based on a qualitative and quantitative analysis, we have managed to identify the factors with the biggest contributions regarding food waste in private homes i.e., planning and shopping, from the standpoint of our target group. It was found that people usually missed out on creating lists or did not do proper planning before they went grocery shopping, which resulted in them buying things that they might already have had at home. With use of proper lists, food waste can be reduced by $20 \%$ per capita.

Moreover, when they were in the grocery stores, they struggled with keeping to their lists and not doing any impulsive shopping or overbuying. This was reported to be the highest contributing factors to food waste in their respective households. It was gathered from the results that online shopping might provide a solution for that, but people were generally sceptical about adopting it because of their preconception and fear that they would not get the right worth for their money. This led to the hypothesis that if the private households adopted online shopping, they will have less food waste as they would buy less to begin with. We have found that $85.3 \%$ are willing to try online shopping if the online stores provided a way to guarantee quality. Based on this, an alternative approach to core functions in the most popular grocery shops in the Skåne county have been designed. As our target group wants to assess groceries online as they do in physical stores, our design provides that ability.

### 7.1 Answers to our research questions

## RQ 1: What are the factors contributing to high food waste in private households in Skåne county?

We have found that lack of proper planning and meal budget before going grocery shopping leads to an increase in household food waste. Moreover, we have found that in-store shopping behaviour is also one of the main contributing factors to food waste in private households. Both these factors result in impulsive shopping, double buying, and overbuying during their grocery store visits. This is due to strategically placed store offers, distractions, temptations, and poor planning that result in excess food in households, which gets thrown out without ever being consumed.

According to our research, we found that people believed that moving to online shopping would help with planning properly and preventing impulse buying. That being said, we also found that people are reluctant towards adopting online shopping solutions as they are afraid that they will not get the best quality for their money.

RQ 2: How can the food waste be reduced and/or prevented from the standpoint of private households?
We did not find sufficient evidence that food waste can be $100 \%$ prevented, but we did establish that it can be reduced by a significant amount. Decreasing the planning issues in private households will reduce food waste by at least $20 \%$ per capita. Moreover, our results show that by shifting grocery shopping to online portals as well as by prompting families to adhere to a food budget to control their spendings in food stores, we can significantly reduce the amount of extra food being bought and then being wasted.

Additionally, it is our recommendation that by prompting families to adhere to some kind of food budget will potentially control their spendings in online and offline grocery stores and in turn, less food will be wasted in their respective households.

## RQ 3: How can innovations based on consumer behaviour aid in preventing food waste in private households?

As been proven by our design chapter, the food waste issues originating from consumer households, can be designed and innovated for by utilizing a human centred design approach where the customer's needs are taken into consideration and incorporated in the solution. Keeping their scepticism towards online portals in mind, the design offers an opportunity to assess products before they are bought and as a result, has the potential to attract more consumers towards this alternative.

RQ 4: Is the lack of knowledge regarding 'edibility assessment' or 'leftover management' affecting the consumption behaviours and how?
Based on the research conducted in this thesis, we could not find any evidence to prove that edibility assessment or leftover management contributes to food waste in private household.

### 7.2 Contribution

In this section, our contribution to the academic community and limitations regarding our work are described.

The work that was conducted in this thesis showed that the issues regarding planning and shopping, as described by multiple sources in this thesis, were valid and are a contributing factor towards food waste in private households. Another contributing aspect of our thesis is that it questions the findings that lack of knowledge, storing, cooking, and leftover management are contributing significantly to household food waste. Moreover, our thesis highlights where innovative measures should focus on in order to create the biggest positive impact.

Based on the interviews and the questionnaire conducted, we have contributed to the academic field by highlighting the need for online shopping to be more normalized. We also found the reason for why people tend to avoid online grocery shopping and proposed and designed a solution for that.

### 7.2.1 Limitations

Some limitations to the work conducted are that our sample size could be more diverse, for example, it could have included people with different financial backgrounds to get an insight into their challenges regarding food waste which might differ from our sample.

We also acknowledge that, in addition to the used data collection methods, complementary data collection methods, for example, a case study on the target group might have provided additional insights into their daily struggles with food waste. Also, the selection criteria for our target group could have been further narrowed to include just Malmö.

Finally, user tests on our designs as well as inputs from other stakeholders could have further validated the findings in this research.

### 7.3 Future work

This part highlights the future work that can be conducted based on the performed discussion, Human Centred Design, conclusion, and limitations. The following future work areas have been identified:

- Continue the design processes started in chapter 6 , by conducting user tests on the target group.
- Evaluate the design from other stakeholder viewpoints, starting with grocery shop owners and employees, and then proceed to suppliers, according to the stakeholder analysis showed in section 3.8
- Expand the target group to the full intended region, i.e., Öresund. Additionally, expand or redefine the target group criteria in order to validate that the findings
from this thesis are generalizable. Possible expansion criteria could be to include households with other financial situations.


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## Appendix

This is the appendix of the thesis where the Risk evaluation regarding the thesis, interview transcriptions \& unused designs are presented.

### 7.4 Risks

Risks can usually be defined as uncertain events that can affect the project success and are dependent on effects in cost, time, or in the quality of the project deliverables (Rodríguez et al., 2016). For this thesis, the risk management process followed at Nokia Siemens Networks, described by Lavanya and Malarvizhi (Lavanya and Malarvizhi, 2008) will be followed. The risk management plan includes five definitions and recommended guidelines (Lavanya and Malarvizhi, 2008):

- List of possible risk sources and categories: Risks should be identified and dealt with as early as possible in the project. Some risks may be evident from the start, some might take some time to uncover. In any case, it is recommended to identify, categorize and catalogue risks in order to ensure that no potential risk can be overlooked. We managed to identify some relevant risks in the beginning which included Stress, COVID-19, Hardware failure, Supervisor unavailable, and Poor scheduling.
- Impact and probability matrix: Risks are analysed in order to understand their probability for occurrence where High, Medium-high, Medium-low and Low refers to risk probability between $80 \%-100 \%, 60 \%-80 \%, 30 \%-60 \%$, and $0 \%-30 \%$ respectively. We have put the identified risks in different probability categories in order for us to highlight which risk might need more monitoring and management. We have also highlighted areas that can be impacted due to these risks. The risk stress, can have a direct impact on the quality as well as quantity of work which can put us behind in meeting internal deadlines.
- Risk reduction and action plan:Some risks might not have straightforward solutions and some may require longer time to be managed, which is why action plans should be in place in order to help with preventing or reducing these risks. We have put measures in place in order to prevent or reduce these risks. For example, for the risk "COVID-19", the prevention is "Caution" which relates to being careful and cautious when going out or sitting in social gatherings. For "Stress", precaution is to have constant communication between both authors in order to avoid any miscommunication or lack of planning and goals, as well as setting
clearer milestones that can be achieved in the set time and can significantly reduce any stress.
- Contingency plan: Actions points should be in place if something goes not as planned.
- Risk threshold and metrics: The risk priorities should be set in order to identify critical areas. Any risks that have the highest risk exposure rating should be set as the highest priority. The recommended risk threshold, which can be customized based on project needs, is that if projects contain at least one "very High" or more than three "High" risks, then they are prone to failure and guidance should be sought. For our project, we set the threshold to two 'High risks' in which case, we will seek out guidance from our supervisor.

A complete overview of the adapted risk assessment plan for this thesis is presented in the 7.1:

| Risk | Impact | Probability | Prevention |
| :---: | :---: | :---: | :---: |
| Stress. | Delay in work. | High. | Communication \& Clear milestones. |
| Covid-19. | Lack in work. | Medium. | Caution. |
| Hardware failure. | Loss of work. | Low. | Cloud based work. |
| Time-management failure. | Not meeting deadline. | Medium. | Talk with supervisor. |
| Supervisor unavailable. | Uncertainty. | Low. | Seek other council. |
| Poor scheduling. | Not finish in time. | Medium | Buffer weeks. |

Figure 7.1: Risk Assessment Plan

### 7.5 Interview transcriptions

### 7.5.1 Interviewee 1

Unknown Speaker 0:00 Kord so do you have any questions we before we begin? No? Okay. Well, that's Let's start then. This is a semi structured interview also. But could you please tell me a little bit about yourself, your living situation, family work and so forth.

Unknown Speaker 0:25 I live with my husband and two kids, two boys, seven years old. I have an education and a Bachelor in social work. I work as a trophy work within kids. Born in Cameroon in Denmark,

Unknown Speaker 0:47 Oh, okay. But in Denmark, they live in Denmark
Unknown Speaker 0:51 and Sweden, but I work in Denmark My husband works here in, in Sweden.

Unknown Speaker 0:58 In my Alma I presume? Yes. Nice. Nice. And the kids are the twins the twins. Oh, nice. Nice. So, this is about grocery shopping. So there will be a lot of food question. So who is responsible for grocery shopping in your family or home?

Unknown Speaker 1:22 Is 5050 It depends on who is near supermarket or who has a day off to do groceries.

Unknown Speaker 1:33 Okay, okay, so speaking of your family, how often do you grocery shop?

Unknown Speaker 1:43 We grocery shop once. Maybe every second week with a big group grocery where we go for go two to three shops and buy everything we need. And then we have maybe every second day when we buy something from the shop nearby. Small stuff like milk pack bread or fruit. Vegetables every second day maybe

Unknown Speaker 2:18 the daily thing that I understand and I presume it is the BI monthly shopping is grown big supermarkets or the monthly

Unknown Speaker 2:33 it's a big supermarket twice a month.
Unknown Speaker 2:40 Okay, so when you hear the word food waste, what comes to mind? Why would you care to elaborate a little bit like

Unknown Speaker 2:56 we actually concentrate a lot about food waste. So every morning when I woke up wake up, I'll see what's in the fridge. If we have any leftovers if we have any vegetables, fruit, anything that is getting a bit old, like broccoli, that's not having the same colour as when I bought it. So I'll google some recipe. Find something so it doesn't go for waste or milk packet look at the dates when it's due date for the best what do you call it in English last date?

Unknown Speaker 3:39 You can just English if that's okay also
Unknown Speaker 3:44 so I'll see that okay, if the if it's one day left for the milk, then everyone's gonna drink milk

Unknown Speaker 3:52 Nice nice. So if it's not too private hopefully is your compost trash bin. Right now.

Unknown Speaker 4:01 Compost trash and Nikki. Like that's been
Unknown Speaker 4:06 the brown bagging thing.
Unknown Speaker 4:10 Is actually a lot for but is proper waste waste is not food. It will be like it will be like what do you call them? helped me out my dear Chicka Chicka Chicka to call it in English us names will be like that, or Yeah. But actually sometimes my kids don't eat stuff and when and normally I'm brought up like that you eat your kids leftovers. The mom always eats the kids leftovers. So we've never put our own plate first. We will first give the kids and look at their leftover take the plate and then eat it and then put some more maybe, but sometimes, especially In the mornings, it will be like a half bread, a quarter bread or a half egg or something. sausages, half sausages. So obviously I throw that out. Yeah, now we have a cat. So he's he loves leftovers the small leftovers. So we'll give him the sausages, we'll give him to AG. He will try it out, and then it will go for waste. But it's it needs to smell bad before it goes in the in the garbage.

Unknown Speaker 5:29 So how important is it for you to avoid? household food waste

Unknown Speaker 5:35 is very important.
Unknown Speaker 5:38 And the last two questions is we in this section? How digitally comfortable would you say you are on a scale from one to five? Where one is not so much. And five is very.

Unknown Speaker 5:55 Can you can you repeat that question? Yeah.
Unknown Speaker 5:56 How comfortable? Are you with digital application and computers, phones? etc? On a scale from one to five?

Unknown Speaker 6:06 For me? Yeah.

Unknown Speaker 6:08 Yeah. Nice. And the last one, you don't have to answer we know it might be a little bit sensitive. But how economically comfortable? Are you on the same scale?

Unknown Speaker 6:22 How do you make comfortable with
Unknown Speaker 6:24 the struggle with money or not? No.
Unknown Speaker 6:32 I said yes. Then I would have like, no, no, no, no. That is a lie.

Unknown Speaker 6:39 I don't I don't struggle. But I'm very careful with what I spend money on. were brought up like, we don't use all the money, we got the pay. So I'm very reasonable sensible with money. So I'll put everything in our savings account first. And then I'll take a little bit every month every every week to see do I need this? Do I really need to buy this? So we always have a buffer in case anything happened?

Unknown Speaker 7:12 Oh, nice. Nice. Okay, let's let's move on to the boom more deeply into into foodways. first section is about planning. So how do you plan for grocery shopping? What do you normally do? Do you have any factors that you

Unknown Speaker 7:37 My plan is always to make a list. But always never make a list. So but sometimes I have some notes on my phone, milk, eggs and etc, etc. But normally I'll just go in a store and I'll go in every single aisle there is in the store and just see what do I need? What don't I need? And oh yeah,

Unknown Speaker 8:07 yeah, exactly like me. They they shake your pantry or fridge before you go or?

Unknown Speaker 8:18 Yeah, I do.
Unknown Speaker 8:20 Oh. And do you have a meal plan or a food budget?
Unknown Speaker 8:29 Ah, no. It's it always depends on who wants to eat what? food budget No, we don't have that. We just buy but obviously if we bought a lot of meat for example, you buy some a lot of meat and then freeze it. And then obviously we use more than 500 or 1000 grown. And then when I get the bill I think about the next time what's the next job?

Unknown Speaker 8:59 Yeah. You mentioned depends on who wants to eat work. Could you elaborate a little bit on that?

Unknown Speaker 9:09 I got two sons that are very different. The one of them will eat everything. He loves Pakistani food, but the other one is a bit choosy. He doesn't like Pakistani food as much he will eat the rice but that said he won't eat the sauce and bread. So we need to make rice pasta for him. And the father he likes sauce and bread. So it's often a dish of rice addition of pasta and sauce with bread.

Unknown Speaker 9:49 Nice nice.
Unknown Speaker 9:51 So you'll make but we will often make a lot of food on Sunday so we eat two days. If it's too much if we make too much food out always freeze a pack of food. Oh,

Unknown Speaker 10:03 that's good. That's good. So we're gonna go into the shopping store right now. So tell me a little bit about your shopping behaviour when it comes to grocery shopping. Hmm. So I can oversize packaging, three for two offers any thoughts regarding

Unknown Speaker 10:36 before I go to the store, I often go through the the quality curriculum and see if there's any good offer on whatever. And then when it's 342445 , whatever, how buy that often do buy big and have a big storage at home. So yeah, I do that.

Unknown Speaker 11:07 When it is 342 for example, yeah, do you tend to use everything? Or is something left and then might be throw? I

Unknown Speaker 11:18 usually will. Would you call use it. But if it's like something that will get old too quick, then I'll think about it before I buy it. And we first like milk, the two days till it will expire. And I buy a lot of milk than our life plan. What can I make from this milk? Can I make some cheese? Can I make some some kind of a sweet dish or anything with milk? Or and the rest will just drink the milk with the evening food, the dinner? So but if I know okay, this is 342 But I won't eat it, then I won't buy it.

Unknown Speaker 12:10 Okay, so when you have some leftovers, and you do sheets, and what some sweet dish, do you need to buy additional ingredients? In those cases?

Unknown Speaker 12:21 Sometimes? Yes.
Unknown Speaker 12:23 Okay, so when we studied and did our initial research, we came up with a term called the good provider identity. And it basically means that you as a mom, base your shopping behaviour on being a good mom, so you tend to provide healthy and everything your kids want when you grocery shop. Is this something you can relate to?

Unknown Speaker 12:55 I' m not sure if I' $m$ understanding it quite the good provider identity.

Unknown Speaker 13:03 I can explain it. Yeah. So for example, when we go to some store and we look at unhealthy and healthy options, we tend to go for the healthy options. First, we want to buy everything that is healthy for them like apples, bananas, salads, and we bring all that home because we want to have them. We want them to have a good diet, a good nutritional diet, but most of them are some of that will go to waste because we want them to have it but they won't eat it as much as we would like them to. And that happens with the food as well. When we are preparing food for them. We're preparing too much because like you said, you're trying to include everybody in your menu. And that means more leftovers can happen than if you had only one thing on the menu. So that is like a good provider identity. So how do you do you do that on a scale from one to five? How do you relate to being a good provider?

Unknown Speaker 14:00 Okay, I'll say five, because we have had a bit of Marianna has known me for the last 15 years or something like that. But I have been a lot all week before. Then I lost 40 kgs my husband got diabetes. So because of that we will we think when I go out to buy stuff, I'll buy sugar free candies, I'll buy more healthier chips mostly fruits and vegetables. I'll try to get it in but obviously I got two kids seven years old they don't eat vegetables. And they do eat candy with sugar. So it I still get an A problem with them. But we have the option. They do eat it but obviously they want the more unhealthy stuff

Unknown Speaker 15:02 Okay, okay, I understand so last question regarding shopping time constraints. Is that something that might affect your grocery shopping behaviour does that mean like if you're short on time if you're in a hurry if

Unknown Speaker 15:24 like, like a job and everything that is going on in your life how do you see time being a factor in your grocery shopping

Unknown Speaker 15:36 obviously it does when we have lot of load from the work me and my husband he got long shifts and I got a load in my work in some kind of way. The kids are stressed because of school or everything then obviously I forget what to buy. Even if I have a list I'll forget to put it on the list. So that means I'll shop more
so now I'll go buy milk every second day or something but but because of the stress I'll maybe buy out maybe go to the grocery shop everyday the nearby grocery shop because then I just forgot the milk and and that happened often when when we are stressed here we will go to the shop every single day because then we forgot this they forgot that sometimes my husband needs to go to the nearby grocery shop to buy some fruit because we all take fruit with us to work

Unknown Speaker 16:36 the that behaviour affects your food waste.
Unknown Speaker 16:42 No Okay, then
Unknown Speaker 16:45 I just have one follow up question would you say that having like visiting a small grocery shop every day and buying things in increments, decreases food waste for you or when you buy huge balls when you buy when you go out twice a month? That is the preferred way? Where do you see most food waste happening for you in those two options?

Unknown Speaker 17:11 I don't see any food waste because it will be like one single thing we we need to go and buy some some milk one day and eat some banana the other day anyone cheese whatever the second day so we don't see a difference. I've never had food waste in my house ever. Even Marya knows that if you have a big party that will next day have a brunch and invite even more people to eat. So don't have food waste. If you make too much food then we will like give to give it to the neighbours so I don't have that much food waste it will it will be like if it's very badly made it was too much soiled or anything then obviously then you can't save it then it's waste but that happens never.

Unknown Speaker 18:03 Yeah. Okay, so moving on. We are running a little bit short on time. Now we have come home from the grocery shop and it's time to store our groceries. How do you store the groceries you've shopped

Unknown Speaker 18:28 I put everything in the fridge freezer or in the cabinet and then I have a basement if I buy something that's on sale like a lot of tin tomatoes than half them what I used like one or two in the kitchen rest will go in the basement.

Unknown Speaker 18:49 Oh Nice nice. Do you have a let's talk about your fridge for example. Do you have like a systematic stacking losing the words but do

Unknown Speaker 19:03 I think I know what you mean like in the top I'll put all the bread and stuff you put on the bread and then snack next is juices. And the second is milk. The third is can be like leftovers. Everything I have in boxes, food and boxes. And the two last I have for fruit and vegetables.

Unknown Speaker 19:34 Do you let's say juices or dairy product. Do you put the one with like the shortest best before date in the front? Are they just random?

Unknown Speaker 19:48 No, I never I should I know I should but I never do.
Unknown Speaker 19:56 So moving on to Cooking Can you describe your cooking routine from deciding what the to cleaning the plates

Unknown Speaker 20:15 scour cooking routine
Unknown Speaker 20:20 like how do you decide what to cook for and how do you start the cooking process and then just take us from the cooking process to when you clean the plates

Unknown Speaker 20:33 I don't cook my husband cooks we will like decide what we want to eat like rice and then we'll start paying everything cut the vegetables take out this stuff my husband cooks and I'll clean after him because he makes a mess so after we cook we'll sit down and eat and then we like I said we always clean our plate
management team has played I clean the kids and then oh yeah and then what happens then? Yeah and then we'll go in the kitchen and put all the dishes in the dishwasher

Unknown Speaker 21:27 so when you cook like an ordinary weekday dinner or when your husband do you think he regards like plate sizes or how many people will come and eat or actually or

Unknown Speaker 21:46 think I think we do decide plate sizes but I'm not sure how we measure it but it's like one cup of rice or half kg of meat or half kg mentioned me half kg of chicken and that will often be for two days like to at least two meals for four people so eight people at least

Unknown Speaker 22:14 nice and when he Are you cook Do you usually cook the same something you cooked before? Or do you go more improvised trying new things and

Unknown Speaker 22:30 now we he usually makes what he made before like is typically the same chicken chicken recipe or the meat recipe or he eats now because of the workload because we work and the kids we we don't try new stuff that often because it's a bit risky with the kids if they don't like it

Unknown Speaker 22:57 so speaking of kids do you do it as a family together usually or?

Unknown Speaker 23:04 Yes? No. They have a bit they have extra meals in between then it's only them they eat six times a day we we try to eat only three times

Unknown Speaker 23:18 try being the yes operative word here
Unknown Speaker 23:24 So would you say if you and your husband had a weekday dinner without the kids would you produce more or less food waste per plate then if your children were eating

Unknown Speaker 23:45 if we if the is are not home and we make some food Yeah, yeah, we always make more food because they can eat when they come home if we only need to eat make food for both of us to go out and

Unknown Speaker 24:01 eat and come again
Unknown Speaker 24:04 sorry I will go out and eat if it's only for us to then we'll go out and we won't make we make we sometimes make breakfast for us with after the kids are gone to school. And then obviously it's like then it's played wise then it's a plate for him okay for me.

Unknown Speaker 24:24 And when you go out and eat Do you think that affects your food waste at home?

Unknown Speaker 24:34 It sometimes it does it depending on if you have anything at home because if we just made dinner if you just made a lot of food a day before and we eat outside the other day, and obviously we can't eat the leftovers and it's not sure we might eat the leftovers on the third date. Maybe we won't, but if I know I'm going out for dinner tomorrow or the same day I'll freeze it at the same moment as before. When we go to eat out, we all freeze it.

Unknown Speaker 25:03 I see. And yeah, that answered the next question I have had about how you manage leftovers. Moving on to assessing edibility. How do you assess credibility of ingredients and food? Is it smell? Look, touch best before date? Or tracking how long it's been open or any other?

Unknown Speaker 25:35 And look, smell and look. Yeah, sometimes it tasted. Yeah.

Unknown Speaker 25:41 Does it differ between

Unknown Speaker 25:45 sheets, for example, can taste different than a smell so it can smell like it's getting bad, and you need to throw it out. But when you eat it, when you taste it, it will be fine. But if it's smelling, and it's taste fine that day, but then later that same day or next day, you can't eat it, you have to throw it out. Cheese is just like that. And that's the same with yoghurt.

Unknown Speaker 26:14 Yeah, I understand their
Unknown Speaker 26:17 look. And obviously, if there's green stuff on your food, then you need to throw it out. Yeah.

Unknown Speaker 26:23 Yeah. Unless it's a special kind of shade. So we have a few minutes left. What do you think is your biggest food waste factor? In other words, what why do you have food waste?

Unknown Speaker 26:47 I never had food waste.
Unknown Speaker 26:50 If they let him. Let's imagine you have the sandwich half sandwich you might throw away in the morning, for example. Yeah. Well, why? Why is that?

Unknown Speaker 27:05 It's depending on the kids mood is mood. It depends on how the day is. Now my kids are a bit special. I have a son with ADHD. So it depends on his mood, how he woke up if he is in a good mood or bad mood if I had a fight with him in the morning. Obviously, if I'm very lovey caring mom and have the time, and I'm very, and he's sitting and eating, you eat everything. I'm stressing him. If you don't have the time, if the time is a problem, I'm stressing him that he won't eat and there'll be leftovers.

Unknown Speaker 27:40 Yeah. I understand and how, let's imagine everything is possible. How can you change? So that doesn't happen? I mean, it's a hard question, but say hard.

Unknown Speaker 28:00 Yeah. Let's wake up early. So I have a lot of time, but that means I need to wake up half an hour. And we, me and my son will love to sleep at the sun and that they can wake up but we love to sleep so we can sleep seven o'clock in the evening and wake up seven o'clock in the morning. And so will your one of your question was here follow a recipe or more improvised? I just came on the third you know the HelloFresh package? Yeah, yeah, we actually tried that. And that was actually a really good one to get. Because you buy it you you you write what you need to buy for two person or four person, etc. And they send that amount of food you need. So I remember when I tried that I didn't have anything at home. I didn't buy anything. I just follow the recipe and I didn't have any like not You can't call it leftovers but I didn't even have a half onion in the fridge. I didn't have half ginger or anything. We just they sent everything you need to use. So that was actually the input.

Unknown Speaker 29:28 Yeah, it was a positive experience regarding waste or leftover. I have one. When we talked I got to think you said you have a basement and you sometimes store or you can store food there and do you think having more space or storage for food helps you more easily avoid food waste.

### 7.5.2 Interviewee 2

[00:00:00] Speaker1 S. Okej, men då. Har du några frågor innan vi börjar? [00:00:10] Speaker2 Nej, jag spänns igen. [00:00:13] Speaker1 Då startar vi. Kan du berätta
lite om dig själv, familjesituation och vad du jobbar med och så där? [00:00:27] Speaker2 Jag ska börja med att jag heter. Jag jobbar på förskola och är trebarnsmamma. [00:00:36] Speaker1 I, jobbar, jobbar och bor i Malmö. [00:00:40] Speaker2 Eller jag bor i Malmö och jobbar i Klagshamn. [00:00:44] Speaker1 Ja, okej, då är ni nära? [00:00:47] Speaker2 Ja, actually they have what is från Disneys trebarnsmamma. [00:01:03] Speaker1 Hur gammal är. [00:01:05] Speaker2 Den äldsta barn eller när ni var 33 år? Ja. [00:01:14] Speaker1 Okej. I din familj, vem har ansvaret att handla matvaror? Båda båda. Hur ofta handlar det om matvaror eller. [00:01:32] Speaker2 Upp till tre gånger per vecka? [00:01:36] Speaker1 Så ja, det är. Det är personligt. Så ni gör inga såna här stora handlingar utan det är det mer. [00:01:48] Speaker2 Vi prövar göra handlingar. Men oftast är det alltid slut på någonting som barnen gillar och vill ha den som vill ha extra bråk med barnen. Tänkte väl okej, då köper jag på vägen hem. Det är därför det blir lite små köp. Men vi stod för att handla på en gång för att de gillar olika affär. [00:02:15] Speaker1 Ja. [00:02:16] Speaker2 Vi hade på det sättet att min man har två affär och jag har en affär. Snart är det slut på de sakerna. Jag har lite i det här. START OF TRANSCRIPT
[00:02:29] Speaker1 Är det du handlar då? Är det någon butik i Klagshamn så antar jag. [00:02:35] Speaker2 Vi är mitt inne på Ica. Ja, jag tycker det är lättare att köra det. På vägen hem kan vi välja det som är lättast att köra in mot parkering och köpa från Ica och köra till barnen och hämta dem då. [00:02:55] Speaker1 Då är jag mer intressant om jag säger food ways eller match. Men vad tänker du då? [00:03:07] Speaker2 Det är många faktorer att komma in här. Vi har inte riktigt tänkt så mycket på det, men man kastar mycket mat. Det gör man om man är på jobbet eller hemma. Det gör man för att köpa vad Micke lagar för Micke. [00:03:28] Speaker1 Ja, det är det jag känner igen det där också. Det är det ja. Hur viktigt skulle du säga för New York som ett al? Hur viktigt är det att undvika matsvinn för dig? [00:03:50] Speaker2 Det. Vi har börjat tänka mycket på det hemma hos oss. Att vi ska använda allt köpa och det vi lagar ska vi också komma ihåg och äta upp innan vi börjar kasta ut det. Men det händer ofta att man kastar ut lite som man har gjort för mycket mat eller man har handlat för mycket i denna kapacitet. Men vi prövar att undvika det vi kan för att vi har tittat på vad mycket utveckling de läser i skolan och pratar om det. [00:04:32] Speaker1 Ja, så är det i livet. De två sista frågorna på den här delen nu. Hur bekväm är du att använda digitala verktyg som olika applikationer eller telefon dator? På en skala från 1 till 5. Ett inte är bekväm och 5 bekväm. [00:05:01] Speaker2 Omkring maten är. [00:05:03] Speaker1 Allmänt lite otydlig. Allmänt. [00:05:08] Speaker2 Det har blivit lite både med jobb och hemma att man ska hålla kontakt med sin familjer. Men också sedan när vi har kommit använder vi jättemycket i en säng på jobbet. Ja, där känner jag att jag är bekväm. [00:05:27] Speaker1 Och var bra. Sista frågan är lite personlig så du får välja själv om du vill svara eller inte? Men på en skala 1 till 5 . Hur ekonomiskt bekväm är du i ditt liv just nu? [00:05:47] Speaker2 Ska jag vara ärlig. Jag är hundra procent bekväm i den situation jag är i mitt liv. [00:05:55] Speaker1 Härligt var kväll, så då tänkte jag att vi ska gå in lite mer på matsvinn. Så vi kommer börja med planering. Och skulle du kunna? Beskriva hur du planerar för att handla mat. [00:06:23] Speaker2 Vi ska inte vi prata om detsamma. Okej, vad saknas här hemma? Det gör vi ofta av telefonen på vägen hem. Eller? Han är på ett nytt jobb och vi saknar mjölk. Komma ihåg när vi saknar bröd. Det blir inte riktig planering hemma på helgerna. Kommer vi göra en matchplan eller en match? Vi vill komma. [00:06:57] Speaker1 Så när när du är på
väg och handlar mer än att ni kanske saknar mjölk hemma. Något annat du tänker på när du ska handla? [00:07:09] Speaker2 Ja, nu kan jag handla igen. Om jag inte kan göra det vet jag om tre fyra dagar fullbokad med långa dagar. Då vill jag ta. Jag har en ledig dag. I dag kan jag halla in redan i dag om jag inte saknar någonting hemma. Underlätta veckan? [00:07:34] Speaker1 Ja, så klart så klart. Så då då antar jag. Kollar du mycket i skafferiet eller frysen innan? [00:07:50] Speaker2 Bara på morgonen. Bara kylan öppnar den. Saknar vi någon säng och handlar vi? Eller så handlar jag som jag sa innan. Okej, jag kommer inte kunna handla. På helger. När vi har fullbokat aktiviteter på kvällarna så måste jag göra det idag. [00:08:10] Speaker1 Precis du nämnde där om matchplan och har du den? Du hade ingen matchplan men.
[00:08:21] Speaker2 Inte. [00:08:22] Speaker1 Har du någon makt budget. [00:08:27] Speaker2 Det har vi aldrig. Men antagligen kom jag på att vi ibland bara gillar att sköta kyckling. Jag är själv med som en vägg så på det sättet planerar vi att det ska bli kött och någonting med kött. Det ska bli någonting med kyckling, det är bara det vi äter med, vilka det ska bli och mat har vi aldrig haft. Vi kör aldrig efter det. Jag tror att vi tycker att det gör att vi, hur ska jag säga det? Det är trångt av bilen och det är lite att. [00:09:06] Speaker1 Jag förstår och förstår. Så då tänkte vi Vi går in i matbutiker nu och. Skulle du kunna beskriva hur du beter dig i matbutiken inne på Ica? På en pizzeria till exempel? [00:09:28] Speaker2 Och så är det den här vägen den går in så kan man inte undvika att titta lite runt omkring sig som behöva lite. Men en sak kan många inte undgå att ta del av. Banana kommer hela vägen fram till kassan. Det är så många saker vi kan göra faktiskt. Några dagar att det också blir det vi gör bra och kanske behöver vi göra det. [00:10:01] Speaker1 Ja, vi är väldigt, väldigt lika när vi handlar mat och såna här erbjudanden. Tre för två till exempel. Är det någonting du brukar. [00:10:15] Speaker2 Fångas jag alltid av. [00:10:17] Speaker1 Allt. [00:10:17] Speaker2 Det behöver inte fångas in. [00:10:20] Speaker1 Alltid tror du? Tror du det påverkar ditt matsvinn? [00:10:31] Speaker2 Det tror min man kan tycka är tjabba. Vad mycket tänker man vad jag ska göra? [00:10:44] Speaker1 Men jag känner igen det. Det finns inget rätt eller fel i den här intervju utan. [00:10:54] Speaker2 Han tänker lite om behöver vi verkligen det? Kommer vi kunna äta upp Maja fångad i ett badkar om några dagar nästa vecka? [00:11:07] Speaker1 Men precis när du handlar tror du att. Nu blir det swing time konstant. Om du har, om du är stressad eller har. Du måste snabbt in och ut för att det ska göra något annat. Sedan tror du det påverkar vad du köper. [00:11:29] Speaker2 Micke. Jag har också upplevt att är en mästare i stress. Speciellt på vardagarna. Jag jobbar måndag till fredag eller när jag är ledig. Då har jag alltid för mycket i min hjärna. Jag ska hinna som kvinna. Vi har Micke i hur. Vi kan inte bara ha en sak att ta en titt på. Han kan fokusera på en sak i stället. Fokusera på tio saker samtidigt och det tror jag att påverka jättemycket hända. Ibland blir det över. Det har jag alltid rätt. [00:12:11] Speaker1 Ja, precis precis. Och när jag och Maria har gjort lite research här så kommer vi över en term som heter The good provider identity, vilket betyder ungefär att du du baserar det du handlar på, att du ska försöka vara en bra mor till dina barn. [00:12:41] Speaker2 Och. [00:12:41] Speaker1 Att det stämmer in på dig.
[00:12:45] Speaker2 Det har hänt förr, men jag vill alltid göra saker som glädja mina barn. Som jag sa i början att jag vill undvika att jag vaknar av mina barn och inte har saknat saknad. Man har haft lust till detta att man kan behöva ibland. Det behöver inte vara världens undergång. Inte har jag haft. En annan uppväxt är att jag
alltid har haft allt tillgängligt. Därför vill jag ha ett mindre barn, alltid ska ha all. Om vi kommer hem så ska de ha någon egen säng som de kan ta. Vi på alltid ska vara. Mat ska vara fyllt. Jag vet inte varför inte alla saker är på plats, men det gör att jag blir lugn. Som mamma är alla på plats. [00:13:46] Speaker1 Det förstår jag. Så vi fortsätter nu. Nu har vi kommit hem från matbutiken och hur? Hur förvarar du dina matvaror som du vanligtvis handlar? [00:14:11] Speaker2 Jag har ett förråd var. Jag har alla de här tolv som papper. Alla passar väl in de som har lång datorn. Jag brukar fylla den alltid. Så har vi det här. Vi har bröd och alla dessa saker som man ska äta varje dag. Och så har vi det här i kylen. Vad vi också fyller med mjölk är tre olika. [00:14:44] Speaker 1 Sorter deluxe i frysen. Finns det någon sortering där sorterade? Det här måste användas nu, eller hur sorterar du. [00:14:58] Speaker2 Inte på det sättet? Kyckling, kött, fisk, grönsaker. Var det det? [00:15:07] Speaker1 Ja. Precis. Och känner du att du har tillräckligt med plats i ditt hem för alla? Vad svarar du? [00:15:18] Speaker2 Handlar det om att jag har ett storkök? Kyl frys står för och gör ett köp för mycket också? [00:15:31] Speaker1 Ja, precis. Jag är lite avundsjuk där. [00:15:36] Speaker2 Alltså, jag vet inte om jag hade en liten kyl fullt så mycket nu. Ett exempel här för några dagar sedan. Jag börjar köpa mjölk varje gång jag gå in bara för att fylla på. Från onsdag lördag kommer vi ha full aktivitet med barnen. Vi kommer inte hinna dit, men i mitt huvud kommer alla att ha en stor kyl. Jag kan ha allt detta. Det gör att köpa för mycket. [00:16:07] Speaker1 Och då behöver du slänga mat som blir dålig sen. [00:16:12] Speaker2 Eller ja, en avokado som jag inte är. [00:16:20] Speaker1 Tomat avokado är jättesvårt. Det blir dåligt så fort man tar hem det. Men okej, okej vi. Nu ska vi börja laga mat. Så skulle du kunna beskriva hur det går till när ni planerar, vad ni ska äta till, att ni äter och sedan tar bort? Tallrikar. [00:16:53] Speaker2 Vi skulle börja med att laga mat och. [00:16:55] Speaker1 Planera vad ni ska laga. [00:17:01] Speaker2 Där är min man som blir gammal så tar vi det här med att vi äter kött så går vi vidare till kyckling. När vi har lagat det så vill jag att det ska vara extra mat och det är också här vi alltid har mycket mat i grytan. Vi har mat som indisk mat och så när barnen äter vill man ha att vi äter upp det. Det ska inte vara någonting på tallriken och om några barn har någonting att äta upp det. Han tycker inte om mat, kastade ägg, kastade. Ja, det är bara. [00:17:47] Speaker1 Så. Ni gör inte jättemånga matlådor då? Eller? [00:17:53] Speaker2 Jo, det gör vi också. Han tar alltid mat till jobbet. Vi äter här på förskolan. Vi har nästan alltid matlåda med här. Men han tar alltid det som blir över i sin matlåda och äter nästa dag. Men om vi har lagat mat i dag kommer vi äta upp den nästa dag. Det är inte så att vi kommer att kasta detsamma idag. Vi sparar det sedan nästa dag. [00:18:19] Speaker1 Okej, okej, så när ni du, du får tänka lite på om det är din man som lagar mycket mat också. Men när ni planerar och förbereder vad? Vad tänker ni på då? Jag tänker typ hur många ni är som ska äta eller jättestora portioner eller hur mycket man äter. Går sådana tankar in i planeringen?
[00:18:52] Speaker2 Vi är olika hemma hos oss och därför tänker vi ska vi göra någonting som vi alla vet, men spara lite med att inte kasta så mycket mat. Men när det blir så här med att de vill ha en banan och jag är inte den jag vill ha en vägg så blir det extra mat och då tänker vi inte på hur många vi kan göra. Det går att göra 45 procents kycklingkött. Men om vi gör ett fel så vet vi att vi har fem som äter. Det gör vi utifrån det. [00:19:31] Speaker1 Och när när det här lagas brukar laga någonting som ni redan vet hur man lagar något ni har lagar för till exempel. Eller är det mycket improvisation i matlagningen? [00:19:50] Speaker2 Det har vi också lite att jag vill ha att mina barn
ska äta lite olika mat. Men det ska gå snabbare så som vanlig fin pasta med kött som smakar som barnen känner igen. Så vi kommer att äta det. De nya idéerna förs på helger när man har lite mer tid med barnen och vi lagar. Vad ska vi göra? På dagarna blir det det vanliga. [00:20:23] Speaker1 Och blir det mer matsvinn och om ni lagar någonting nytt eller om ni lagar som dessa lasagne? [00:20:34] Speaker2 Nu. Är det något nytt så blir det bara lite crazy och den smakar lite annorlunda. Men om det är någonting de är vana vid och. [00:20:51] Speaker1 Brukar ni äta? Vanligtvis tillsammans som en hel familj. Jag sitter vid biljardbordet och om vi tänker att du och din man äter middag utan att barnen är där, att det bara ni två som äter mat skulle skulle ni producera mer eller mindre matsvinn per tallrik? [00:21:25] Speaker2 Ja, det skulle vi göra. Att låna sportlovet var vi själva. Man hade mycket mindre mat vin hemma hos oss. Vi hade inte barnen hos oss så det blev inte ensam om att själv tänka mig att tänka. Om det blir slut så tar jag en macka eller någonting annat att äta. Men med barnen tänker jag att det ska vara extra. Kanske de kommer att förstå att. [00:21:55] Speaker1 Det förstår det. Sista eller inte sista frågan. Men på den här delen i alla fall om ni skulle gå ut och äta på restaurang eller någonting liknande. Tror du att det påverkar matsvinnet ni har hemma? [00:22:21] Speaker2 Ja, det tycker jag man är. Man kan ibland inte tänka på att vi har mat hemma och lagade i går. Men vi kan bli sugen på äta någonting annat hela dagen. Tänka vi vill inte gå hem och äta där. Men vad ska vi göra om vi har hemma nu? [00:22:46] Speaker1 Är även intressant så. Leftovers mat, matlådor och sådant. Hur hanterar ni det i familjen? [00:23:04] Speaker2 Det är pinsamt att det bara är. Jag brukar bara kasta ut det om det blir över. Vi har en tid på vissa saker som jag inte kunde spara länge. Det hade varit en soppa, den kunde jag spara på flera dagar för den gör att jag kan äta den. Men köpen kommer om det var min man hade tagit med till jobbet och han hade inte kastat ut det. [00:23:37] Speaker1 Där och det behöver inte vara pinsamt. Vi är alla människor här och det är helt okej. Jag tänkte att vi har ungefär sju minuter kvar nu på den här nivån. [00:23:55] Speaker2 Jag tyckte det var pinsamt för att man själv jobbar i det här jobbet som därmed bara vill jobba med hållbar utveckling. Om tre barn är bra vill visa sina barn att kasta ut mat som man kan använda och många barn som inte har mat som vi kan bjuda våra små barn är. [00:24:20] Speaker1 Det förstår jag. Men nu har ju inte jag barn själv, men jag antar bara att det finns mycket mer. Man behöver tänka som förälder än hur mycket mat man. Slänger han i alla fall en av de sista frågorna när du bedömer om en matvaror går att äta. Hur gör du då? Tittar du på den, luktar, känner, kollar bäst före datum eller hur? [00:25:00] Speaker2 Och det gör jag också om man kan mjölkkossan vilken dator de har. När köpte jag dem? Hur länge de har varit öppet? Om jag tycker det har varit öppet länge kanske jag inte luktar på den, kommer bara kasta ut den. Men ibland om jag tänkt att jag inte kommer ihåg när jag gjorde det. Ibland är man så stressad i sitt liv att man glömmer okej, det är två dagar sedan. Varje dag kollar jag. Hur luktade? Hur ser det ut om jag kunde kasta ut? [00:25:36] Speaker1 Ja, precis. Och. Den sista stora frågan jag har här innan det blir lite allmänt på slutet är vad tror du är den största anledningen till att du har matsvinn idag?
[00:26:01] Speaker2 Jag tror det är tiden. Men hur livet blir med att prioritera i sitt liv, att planera och ha en tidig dag på en vecka den dagen och köpa in eller handla in och laga mat. Okej, nu har jag två långa dagar. Vad ska jag göra? Jag måste göra det i dag så jag har fullt upp i mitt hem. Jag tror inte det som gör att jag har så mycket matsvinn. [00:26:36] Speaker1 Hur skulle du kunna göra för att ändra på det?
[00:26:43] Speaker2 Det var tänkt att det var ett lätt men samtidigt är det också väldigt viktigt att man köper så dubbelt för att man vill de andra dagarna. Kanske jag skulle ha gått in med planen i matchen som i dag är lite begränsad, för vi är inte begränsad på något sätt. Vi har öppen. [00:27:17] Speaker1 Och om ni skulle begränsa lite, hur skulle det påverka ditt liv idag? [00:27:26] Speaker2 Jag skulle erkänna att jag inte var. Men som man brukar säga, vi måste begränsa vem vi äter på en vecka. Innan hade jag ingen begränsning att tänka på vad gillar vi äta och försökte vara det? Nu tänker jag på Na'vi hemma. Vilken sida äter vi hemma? Vi tycker att vi inte kan så mycket som vi har gjort innan. Det är bara en liten sak att tänka lite innan man kastas ut i det. Kommer vi äta frukost de här dagarna? Nej, det gör vi inte. Och det behöver inte handla om min man. Om ni inte ska äta frukost många dagar hemma så hämtar inte så mycket bröd hem. Då kommer vi att kasta ut det. [00:28:25] Speaker1 Skulle du säga att det var en positiv eller negativ förändring i ditt liv? [00:28:30] Speaker2 Det var ett positivt var att vi också hyrde in så mycket mat. Det känns inte bra. När vi har minskat det lite så känns det bra att köpa ett men äta och inte ha så mycket grejer runt omkring sig bara för att man gör det här. För. [00:28:56] Speaker1 Ja, det är kul. Kul att höra. Nu har jag nog fler frågor. Men Maria, har du några? Frågor. [00:29:08] Speaker2 Men actually just everything but I am I just want kusken you're taking about going out on it. And then of course may saying that behåller ordet. Hon vill hon inte. Good league där det ska läggas continues that you decide. Yes, yes, and then we do you. Står som adverb linda fraser och bygger livet in the age and how är det som Goddard? Att representera var det hade varit. Jag hade säkert blivit bättre på att frysa mat eller spara den till nästa dag. Vad skulle en B och just one thing thing about a säsong eller smäll? And you make a judgement? If you need to create a real know what do you ever look är bäst. Befordrades desperat. Matar do you just you look and you decide you're have the best. Befordrad? Ibland. Jag kom upp i villkoren för ett datum. Är det 23 dagar gammalt så tänker jag inte på saken. Så kommer jag också kasta ut. Men jag har lärt mig att det inte alltid är så ofta. Ibland kan man äta upp det utan att det blir dåligt. Det är något nyligt. Har lärt mig Nagasaki att vi behöver inte genast no doubt. [00:31:15] Speaker1 Men som tur är. Har du några frågor till till oss? [00:31:23] Speaker2 Jag tyckte inte det var en riktig fråga, men jag tror att det var spännande. Det fick mig också att tänka sedan Maria har berättat. Detta har jag också tänkt på. Hur har mitt varit? Vad jag kört i en del av sakerna som man tror passar in, men att man alltid har gått tillbaka och tänkt över det. Det fick mig att tänka. Mycket av min vana är att göra detta och jag tror att det här kommer att sätta mig efteråt. Varför stressa jag vissa dagar? Jag kan ju ta det lugnt om jag hade lite bättre. Ja, så är det. Det har varit ett klipp i mig också efter det här. [00:32:12] Speaker1 Det är kul att höra. Jag hoppas att vi kan komma fram till någonting klokt i vår research här. [00:32:23] Speaker2 Ja, det var spännande. [00:32:27] Speaker1 Tack så jättemycket för att du kunde ställa upp och vara med i det här. Det kommer att hjälpa oss så mycket jag bara dubbelkollar. Om vi skulle ha någon liten uppföljning fråga, då kan vi dra iväg ett sms eller mejla. Maria Kanske ringer? Jag vet inte. [00:32:49] Speaker2 Ja, det kan ni. [00:32:51] Speaker1 Tack så mycket.
[00:32:54] Speaker2 Så okej, den vi är. Den som är deras finaste dialekt får vi i att beklaga. Jag har ingen. Men han tog upp reflektion och planering. Ja, den var en tanke som vi vill vi.

### 7.5.3 Interviewee 3

Unknown Speaker 0:00 Yeah, thank you. Nice. So, before we begin, do you have any questions for us? No. Okay, let's, let's start. So, could you please tell me a little bit about yourself your living situation? You have families, kids, where do you work? Something like that?

Unknown Speaker 0:24 Yeah. I'm married and I have two adult kids. And they work in Denmark.

Unknown Speaker 0:30 Yeah. Do you do you live in Denmark?
Unknown Speaker 0:35 No, I live in Sweden. I live. I'm actually Swedish. I just work in Denmark.

Unknown Speaker 0:40 Oh, okay. So so you live in Malmo? Yeah. I live in here. Yeah. Nice, nice. And adults, children. They are 20 and 2220. And 22. They are adults.

Unknown Speaker 0:56 But I think there needs to be and a little bit of more explanation here. Because when you're not somebody like you, here's adults, you think people who are moved out as children, even if they are above 18, they are still children in our households.

Unknown Speaker 1:15 I see I don't have any kids myself. But I would presume that my mother still sees me as 30 year old child. So back on back on track. Now Nadia, who is responsible for grocery shopping in your household

Unknown Speaker 1:39 is actually me, but I like delegate this work to my son. Also, he also goes and do these chores. But it's normally me who knows what to buy, when to buy? But

Unknown Speaker 1:53 how often do you do you grocery shop? Approximately
Unknown Speaker 1:58 approximately once a week, but sometimes we also need to add more things as we have.

Unknown Speaker 2:05 I see and where do you grocery shop?
Unknown Speaker 2:10 Different places like in Willie's in coop in Aptos? And then also some Pakistani shops like in Norfolk? If you're familiar with that, yeah.

Unknown Speaker 2:20 I'm familiar with Abdullah villas, but not the last one. Yeah, but yeah. So and we usually do that after work, or

Unknown Speaker 2:31 nobody, you know, because since my son is living at home, and right now he's not studying, so he does it in the weekdays in the morning. Like in the in the daytime? I don't do after work. No.

Unknown Speaker 2:44 Okay. Okay. I see. So when you when you hear the word food waste, what what comes to mind?

Unknown Speaker 2:53 Is, that is not so good. Good. And I often, like want to make a plan. So that doesn't happen. Because I just feel it's also a waste of money. And also many people, they don't have food to eat. So we cannot just, you know, throw it away. So the main plan is, it shouldn't happen.

Unknown Speaker 3:17 So the next question is, how important is it for you to avoid food waste,

Unknown Speaker 3:23 is actually very important, because it's also a religious aspect of it. Because as a Muslim, we are like, not supposed to waste anything. So it is like both religious and economical background to this food waste issue. Of course, it happens anyway. But we try to like, avoid.

Unknown Speaker 3:44 Yeah, okay. So if you don't mind me asking, would you say the economical or the religious part is more driving? You do not throw away?

Unknown Speaker 3:56 It is the religious part. Because, yeah, the economy. It doesn't feel I mean, if it's like, there's some fruits here or something, it doesn't feel an extreme, but I feel sorry that oh, we went there and bought it. And you know, we didn't use it accordingly. But more mostly the religious part for us, at least.

Unknown Speaker 4:16 Yeah. Okay, so I'm gonna ask you a question and you don't have to answer because it might be too private, but on a scale from one to five. How economically comfortable are you in your living situation life right now? Oh, five is five is very comfortable and one is not so yeah.

Unknown Speaker 4:40 Yeah. One five. Yeah. Okay.
Unknown Speaker 4:44 And last question on this part of the interview. How comfortable are you using digital tools, application phone, computers, etc.

Unknown Speaker 4:59 It's Totally fine. I mean, of course, you can always get better. And when you have these youngsters at home, they always know more than you. But other than that, I think I'm quite confidence.

Unknown Speaker 5:11 Nice, nice. Okay. Okay, so let's, let's move into the second biggest face of this interview, we are going to talk a little bit about planning. Yeah, planning for grocery shopping. And I know you said that your son also do the grocery shopping. But when you do, how do you plan what to buy?

Unknown Speaker 5:39 Like, I have always progressive list, which is like in progress. Like if I today like okay, within onions, then I put it on the list. And I have different feed different lists from different places where these things should be bought, like we buy meat from adults. And then you have the dairy products and other fruits and things from village. So I have three different lists all the time. And then when it's like we feel okay, now we really need it. Or if it's totally very it hasty thing, then of course, we go and buy it from nearby. But otherwise, it's like once a week, or maybe after five days, we feel okay. There are many products that needs to be bought.

Unknown Speaker 6:21 Yeah. So how do you? Do you check your pantry or fridge before you go?

Unknown Speaker 6:29 Shopping? Oh, no, I have it on my phone. And then I copy it and send it to myself.

Unknown Speaker 6:34 Oh, okay. And it's only like, items you have you're out of stock or out of stock? How do you say that?

Unknown Speaker 6:45 Yeah, I understand what you either what I don't have at home or something. And something new, there's more when I go myself, then I see okay, maybe something else is on a good offer. Or maybe I need this or if I want to cook something new. Or then I also added to the list. And when I'm myself going then I'm more you know, like innovative. He's more like very bound to the list. Everything we just there is going to be bought but he doesn't think further but I'm trying to teach him to think further.

Unknown Speaker 7:17 Would you care to explain a little bit more about you use the word innovative?

Unknown Speaker 7:23 No, it's more like maybe something new, a new type of cheese or a new food or new. Some new cereals are okay, yeah, we can try this or something like that.

Unknown Speaker 7:33 So curiosity is Yeah.

Unknown Speaker 7:37 Yeah, curiosity, or maybe something is like for sale on a good price. And we think no one try this,

Unknown Speaker 7:44 huh? Yeah, I see. I see. And finally planning question. Do we have a meal plan or food? But yeah.

Unknown Speaker 7:55 No, we don't have a budget. But of course, we don't want to like it's not like some extravagant but not a budget. I mean, if we need something we need it. It's more than what we thought it is. It is what it is. I don't have a meal plan. But I am the one who cooks and I plan the meals thing. Okay, for two days for three days, different dishes. And then I know that these things are made. It's not like never a hasty decision that I can't move. Oh, what to have to make. It's never like that.

Unknown Speaker 8:27 Now, I see. So that was a little bit about planning. Let's walk into a grocery store. Could you walk me through? How you your shopping routine in a grocery store? Yeah, I

Unknown Speaker 8:44 didn't, I just checked my list. And I also put a list in order of appearance. Like we started the fruits because like, if you go to the list, it's like the fruits and the bread. And then you go to the other items like cheese and the milk and everything in the frozen items. And then we have the dry things. Yeah, like, like rice or pasta or whatever that's needed. And lastly, the cleaning items.

Unknown Speaker 9:13 Hmm. Okay. And inside the store, there's usually offers like, three foot by three for the price of two very big packages. What do you think about this?

Unknown Speaker 9:29 Yeah, I mean, it depends on what it is, normally is very good. Because now we also we also have like, we live in a villa. So we have like a space to have extra stuff. So if it's something which we use usually or something which we will be needing. It's a good date, like expiry date is very far in the future. Yeah, we can buy that and maybe more of it. Yeah. Like often, you know, like the soft drinks.

Unknown Speaker 9:56 Yeah, so do think buying bigger packages and or those three for two offerings affects your food waste.

Unknown Speaker 10:11 I mean, those things, which are those things which we buy, we don't waste them because they are not like, you know, it's not like milk, or yoghurt or something which will be expiring in the near future. So this is like for a longer planning, so it never affects, like, in a negative way. No,

Unknown Speaker 10:30 no. Okay. Okay, I see. And inside the store, if you have any time constraints, if you're stressed, or if your need to be somewhere pretty soon, do you think that affects the way you grocery shop?

Unknown Speaker 10:48 Yeah, of course. But then yeah. Because then you just need to get grab the things you really need. And then you just don't look around in the same way. And it's not that when I go for grocery shopping, it's not like, oh, I have to check out everything. It's not that much fun.

Unknown Speaker 11:05 If I understand you correctly, you buy less if you're stressed.

Unknown Speaker 11:10 Yeah, I think but I will buy what I need. What I have on my list, I have to but

Unknown Speaker 11:18 yeah. And when Maria and I did a little research, we found a term that's called the good provider identity. That is basically that you base your cooking on being a good provider for your children. How much do you relate to this?

Unknown Speaker 11:44 Yeah, I think I can relate a lot to this.
Unknown Speaker 11:48 On a scale from one to five, five is the most
Unknown Speaker 11:52 Yeah, I think maybe? I don't know. Because five, then there won't be any room for improvement. So I would say four. I cannot be that arrogant.

Unknown Speaker 12:02 Yeah. So room for improvement. Improvement. That's,
Unknown Speaker 12:08 you know, there's always room for improvement in every aspect. So I think everything can get better. So

Unknown Speaker 12:17 I think maybe we can revisit this question from a different angle. When we say good provider identity, we also mean that sometimes we tend to take too, we try to take too much care of our children and we end up making, buying more than we actually need or making more than we can actually eat. And that comes to us like as conduct comes down to us as like, among mothers, because we're always thinking about providing for them and sometimes we provide too much.

Unknown Speaker 12:49 Yeah, but but the thing is, like, at our place also, before when my kids were younger, we never like it was not like okay, what do you want to eat? I mean, we make something and everyone eats that. If you're not allergic to it, of course, it's not like I have to make three different things because to to satisfy them. So that's why it's not that difficult. I mean, I know it's not a waste when we eat this food. When it's over we make a new thing. It's not like oh no, I don't want to eat this or I don't want this or I don't like this there is not like we are thankful for what we have and we I tried to teach my children also this and I think I have succeeded in this part.

Unknown Speaker 13:30 I should pick up a session from you.
Unknown Speaker 13:35 Okay, let's Okay, so now you've come home from your grocery shopping. How do you store the items you've bought?

Unknown Speaker 13:48 Like we checked the dates of course, especially for the milk and yoghurt and bread and these kind of things and if the fruits so we also check that the newest item is below and the older item and yeah check out before I go there to the grocery or my son he goes I also arranged in the fridge so everything's clean and ready to be you know ready to be what you wish was that still email thing

Unknown Speaker 14:19 Yeah, that's yeah, nice nice. Do you have any other food storing strategies

Unknown Speaker 14:31 but then of course everything has to be you know, clean and you know, airtight like the rice or the pasta and other things dry items. They have to be like stored in a different way. Yeah, and the other item like frozen the frozen items I don't think so much about because that we like to have long expiry date and yeah, that's a different issue. But the other thing is Yeah, clean and like airtight and these kinds of things. Yeah.

Unknown Speaker 15:00 Okay, so going into cooking, can you describe your cooking routine from deciding what to eat to base? Plates?

Unknown Speaker 15:14 Yeah, but I like I always make like on my day off because I have, I work also on the weekends, and I have some days off in the week. And then I make some food for the coming days. I never cook on the same day as I'm working. So I plan like some meat a meat dish, a fish dish, a vegetarian dish, and then we like eat that for two, three days. And then when it's over, so then I make something new. Or if one day, I feel oh, I didn't I didn't have time, then we maybe we take out some frozen items, like nuggets or something else, and that we can get past.

Unknown Speaker 15:50 Do you? Do you usually eat all together? Like every member of the family?

Unknown Speaker 15:58 Yeah, yeah, often, but like today, I'm working to 10 o'clock. So that won't happen. But otherwise, yes. We tried to do that.

Unknown Speaker 16:06 Yeah. Nice. Nice. And do you when you cook and prepare food doesn't necessarily have to be for the same day. They think about? Who's eating how much they can portion sizes?

Unknown Speaker 16:24 Yeah, I approximately would know how much I have to make. And if they eat more, it's also okay, then we just make something more another day or it's not that they have to overnight, we have to just eat this half kilo of meat. But I know approximately how much they eat.

Unknown Speaker 16:40 Yeah. Okay. So you if your children or kids were not eating, let's say you and your husband were eating alone one day, would you produce more or less food waste per plate?

Unknown Speaker 17:12 Actually, the thing is, I'm just saying it's not something I'm making up. We never throw food. Like the food we made, we never saw. I mean, it can happen that fruits are something that we have to throw them because we didn't have the time to eat it. Or we just forgot it or whatever. And they turned brown or yellow or something. And we didn't feel like eating it. But the food which I made, we never saw it.

Unknown Speaker 17:39 I see I see. I mean, if the questions might be a little bit repetitive, so you have to excuse? No, it's okay. If you were to go out and eat in restaurants, do you think that would affect food waste at home?

Unknown Speaker 18:02 No, because you plan that as well. Because, okay, spontaneous thing. Still, it will not affect because I don't make like the food seven days before, it will still be able. It's also edible for the next day. Yeah. And if I know I'm going somewhere, then we just, I don't make so much before. Oh, it's always This waste thing. And we don't also when we go to the restaurant, we also not we don't waste there as well.

Unknown Speaker 18:36 That's, that's good. So the food you prepare. How do you manage that? Do they put it in the fridge or freeze it?

Unknown Speaker 18:49 No, no, just a fridge because two or three days is okay. I never freeze it. I only did once when I travelled and my family was here and I was travelling for three weeks. It doesn't happen too often. But when it happened, then I froze in the fruit because three weeks it cannot be in the fridge because my husband would cook

Unknown Speaker 19:11 so so you froze it them first.
Unknown Speaker 19:14 Once in a lifetime thing. It's not it doesn't happen so often. So normally no.

Unknown Speaker 19:22 Okay, so now we are entering the the final phase of the interview. We've talked a little bit about planning shopping, storing, cooking, eating and leftovers. You mentioned this with with the fruits, they were brownish and you threw them away. So how do you assess edibility with other ingredients or groceries?

Unknown Speaker 19:54 Now what is the fruit that is very visible? When you see it? You don't feel like eating it but sometimes you can even eat that, like, cut it off or see what can be eaten. But the food I know like in two, three days, nothing will happen. And of course we have to check it. I mean, it's not that intuitive. There's never
nothing happens ever. It's more It has been five days then we have to like, check it more scrutinise more, if something is wrong,

Unknown Speaker 20:24 yeah, yeah. So you look at it and see you can touch or
Unknown Speaker 20:37 then I just have a follow up question here. You mentioned that for fruits, of course, you look at them. And that is a very good indicator if you should keep it or throw it away. But for some other things like for breads, or for eggs for meetings for cheese, and some things that are in your fridge, and do you check, how do you check if they are good? People smell them? By just looking at them? Or maybe checking the best before date? What goes into that?

Unknown Speaker 21:03 Yeah, but like the cheese and egg is often like we buy so often in lesser quantities that they don't like it, they don't become bad. I mean, they if they are a developer from for for that period of time, which we need them to be. And of course, sometimes, because it has never happened with of course, if you open like if you want to make an omelette and you see the egg is not okay, then of course then you will react, but it often doesn't happen. And milk and everything they have the date on it. So then we know it.

Unknown Speaker 21:40 And for for example, if you see a milk carton that is past its best before date, how would you

Unknown Speaker 21:49 then then I would smell it and check in but often, then I would actually throw it away, even though it's like does feed it for days and it's unopened, then it's okay. But if it's open, I might depend how much it is. Because if it's very little there is okay. But it's more than maybe we can take it out and try and see if we can make something with it. Which can we can like? Yeah. Nice.

Unknown Speaker 22:19 Okay, so one of the biggest last question. And of course, you mentioned you have very, very little food waste, but you mentioned a few. So what do you think is your biggest reason for wasting food? I mean, the little that you do? Yeah.

Unknown Speaker 22:41 But it is because you know your work both, which we both work and sometimes things we buy maybe a little more, or we thought oh, we forgot we already had it. Then it could be like that. Or sometimes you just eat the new without thinking about the old one. And maybe there was a yoghurt that was opened before and then you think oh, I just took and then negative circle. Yeah, it can happen. Some maybe some fruit you think oh, it's just so fresh and nice. The new one with the other ones little bit. Looks a little bit boring. The new one? Yeah.

Unknown Speaker 23:25 Yeah. So let's imagine how could you change that or prevent that from happening?

Unknown Speaker 23:33 Yeah, actually, yeah. I mean, of course more, be more available. It's like be more alert in these situations. But my husband was very good at it because he is even more than me doesn't want to waste anything. It like he is very much into it. So he's like actually he's the one who should be talking to you because he messed everything up in the issues he feels nothing should be thrown away. Okay, he could always give us something with fun this is okay. Just just remove the fungus and eat everything else

Unknown Speaker 24:27 are you kidding me? I'm not doing that. You know, when read it becomes a little bit you know, the two founders is like showing nobody, I cannot do it. But it doesn't just happen so seldom. But but when it happens he can say these things okay.

Unknown Speaker 24:54 Next time you guys are over, I'm gonna ask Mike Unknown Speaker 24:56 how you do that he's extremely good. So please continue. Yes.

Unknown Speaker 25:06 Yeah, I don't think I have any more. Yeah, I have one question. If you were to change the biggest factor for food waste, as we were talking about, how will that affect your life?

Unknown Speaker 25:27 I mean, I think we all we all think that we shouldn't waste food. So, of course, it's a good thing. I mean, if we would even eliminate this last food waste, it would be a victory for us. And right now, I think we are not in a in a bad place. But everything, as I said, could be better. But with this kind of hectic lifestyle, and you know, working morning, you think there isn't that many people at home, like they're eating and you miss something, and you can just trust your kids that know everything? Because you have the, you know, the whole overview of things. So it's difficult. I think it's difficult to eliminate, but we work on that is our goal to even remove that from our lives?

Unknown Speaker 26:17 Yeah. So hectic lifestyle, do you think that is a big contributor overall, not just you to food waste in private,

Unknown Speaker 26:29 of course, because you know, if, like, if I'm a housewife, because when I was, you know, in this corner pandemic, I was at home, like many months, and then you can take care of things in other way. It's not so stressful. It's like, okay, then you know, this and that, and everything is more, you know, calm if both people are not working. I know, this is not the 3ds today in society. This is the reality because everyone's stressed. You know, you come home and this and that. And but I'm very good planner. So so arrogant. Because I'm good at this. Yeah. We still don't store so much.

Unknown Speaker 27:11 Yeah. So your ability to plan prevents food waste in your home? Yes. Interesting.

Unknown Speaker 27:21 Very interesting.
Unknown Speaker 27:25 Yeah, I think that was the last question I have. Maria.
Unknown Speaker 27:31 No, I interrupted you successfully wherever I wanted to. So I think Yeah. Do you have any questions for us?

Unknown Speaker 27:43 No, it was nice talking to you guys. I wish you all the best for your project. Thank you. Thank you.

Unknown Speaker 27:51 Likewise. So
Unknown Speaker 27:54 then I think we can let you get back to work. Yes, please. Gonna let you go. Thank you so much. I'll talk to you soon. All right.

Unknown Speaker 28:05 Yeah. Thank you What

### 7.5.4 Interviewee 4

Unknown Speaker 0:00 Dude, no. So before we begin, do you have any questions for us?

Unknown Speaker 0:07 I'm just curious. Are you doing? What are you using it for?
Unknown Speaker 0:12 A master's thesis?
Unknown Speaker 0:14 Yes, that must be okay. And you know, positive parameter.
Unknown Speaker 0:17 Yes. He's our supervisor.

Unknown Speaker 0:19 Yeah. Excellent, sir. Well, so
Unknown Speaker 0:22 you know, Patrick as well.
Unknown Speaker 0:23 Yep. He asked if I could, if I could be available for interview, and I said, of course, oh, your master students. So just hit me. And I will answer as good as I can.

Unknown Speaker 0:38 That's great. So to start, tell me a little bit about yourself.
Unknown Speaker 0:45 Well, I'm 44. Living in Bora, south of Sweden. I'm married since so we've been together since 24 years now. Yeah, that was quite long time. Married for 16. I think but I don't. We don't we say together 24 years, because I don't say it wrong. And I have two children about Klara 14 and 11 and one dog and two cats. And I'm working at SCB and been doing so for 20 years plus, and mostly in the branch offices around in the in the south of Sweden, as a branch manager, but now I'm a head of department that I have been started myself here in Malmo that we we do a lot of business credit and business risks. Very exciting. It is but yeah, and yeah, I think that's me.

Unknown Speaker 2:03 Yeah. You covered a lot of my follow up questions. Let's just dive into food in your household. You you live together with your husband and children, I presume? Yes. So who's responsible? Usually for the grocery shopping?

Unknown Speaker 2:24 I would say me, Pat, we have a lot of discussions about this over and over again. So 7

Unknown Speaker 2:40 Nice, nice. And where do you usually grocery shop?
Unknown Speaker 2:46 It depends. If we are doing like this. Sometimes I get fed up with all the food logistics. So we have this. What do you call when you when you buy food cases from my mod cast, I thank you very much. From Luna smallscale. So for instance, we do that in periods. But now we're back to where we often ended up. We are shopping at the nearest at our local gun store. Emergency shopping very often. We always say that we should do this at the maxi the big week. Shop for the week. But we don't really have time for it. And you can think that you should order it by worried by the internet. But we don't. We don't. It's not time for that. All right. We need to have some food. We go to the local grocery store. Sorry.

Unknown Speaker 3:53 That's okay. So it's, you don't do that because of the time it takes too much time.

Unknown Speaker 4:00 Yeah, it's planning I would say learning planning. Yeah. I would love to have someone else to plan what to eat. What if you would listen for some solution? What to eat and delivered home for the week?

Unknown Speaker 4:15 Yeah, awesome. We'll see what this thesis turns. But now when you don't do the math class, how often do you approximately grocery shop?

Unknown Speaker 4:29 Two to three times a week. Short Poppins in the local store.
Unknown Speaker 4:37 Okay, and I'm gonna say a word. Food waste. What comes to mind?

Unknown Speaker 4:46 Yep. A bit. A bit. Yes. Oh, that's hard. Can you please help you how to answer food waste? Yes. That will do and quite, not quite a lot. It's it's, like awfully long so that we are bought just in case that that went to old. Otherwise, not. Because we shop as I said, we shop quite often, and therefore we use all the most of the food. It's more waste when we do this big grocery shopping sometimes, but not very often. And then we ending up with a lot of stuff we doesn't take care of.

Unknown Speaker 5:39 Yeah, yeah. And of course, there's no judgement here whatsoever I understand. So as you possibly can, but how important is it for you to avoid food waste?

Unknown Speaker 5:56 To be honest, I would like to say a lot, but not so much. Because the shopping bit is just the food bit is just solving a problem for us now. When we have these MOFGA that's very good, because then it's exactly what we are. We're not wasting much, because we think that but yeah, as it is now. Not a lot of ways, but I really doesn't feel bad about it. That's bad of me. But I don't

Unknown Speaker 6:28 know. And the final question here before going more deeply into stages. How digitally comfortable are you? Or how much do you use digital tools and tools in your everyday life?

Unknown Speaker 6:44 80
Unknown Speaker 6:49 Oh, nice. Nice. Yeah,
Unknown Speaker 6:51 this was
Unknown Speaker 6:53 continuous sorry.
Unknown Speaker 6:55 For this example, this Sue meeting. I don't have zoom on my phone because I'm only using my my phone for work actually. So it was very interesting when you were sending me the link to SB SB and I can't connect from there because we can Paris perspective so I have to send it to my personal phone and then upload soon but I know this well. Sorry for being late but this is just just to click it's not hard to just do it. It's

Unknown Speaker 7:24 after two years of pandemic I think we all are used to this exactly. So this this next section we're going to go into different shapes and stages of food chain starting with planning so Can Can you describe a little bit your routine when you're planning to go or planning to buy grocery shops?

Unknown Speaker 7:50 Yes, we are looking in the in the fridge and say oh we doesn't have an eating thing to eat today. So we need to go and chop something that's the planning

Unknown Speaker 8:08 you don't have any other factors like regarding than what you're going to eat?

Unknown Speaker 8:15 Well I can just say like there's we we always do the planning like okay, what do we need to have at home for instance? Often milk cheese and stuff like that the basic stuff that we always plan or we have this static list that we always want to have at home. But then when it comes to dinner it's like okay, what what are we going eat? What are we going to eat today? And I'm very often doing the food and we have a freezer filled with stuff of course and they often use that but then maybe we are lacking a cream or something like that.

Unknown Speaker 9:03 So then you just go buy cream or
Unknown Speaker 9:06 cream and then we I also buy for instance cheese if I know that the basic stuff if I know there are ending up Yeah, yeah.

Unknown Speaker 9:17 And do you and your family have meal plan or rent or food but

Unknown Speaker 9:22 yeah, no,
Unknown Speaker 9:25 no. And budget we have a question and it might be a little bit too personal. So you have to decide to answer it or not. But on a scale from one to five, where one is not so much and five is much how economically comfortable are you in your family right now?

Unknown Speaker 9:46 Ah, how economically comfortable we are. One is low and five is high. Yeah. Four or five. Or I should save YES. YEAH. YEAH. We are comfortable.

Unknown Speaker 10:02 Yeah. As I said, both me and my husband, we were working a lot and it pays off. So we got comfortable. So it's for now. Yeah, I know why.

Unknown Speaker 10:18 This is a question you shouldn't ask in social, but we wanted to see relation with,

Unknown Speaker 10:24 with. Yeah. So I have said yesterday's interview, just
Unknown Speaker 10:31 okay. Okay. So let's go into shopping. Could you describe your shopping routine, when you arrive at the grocery store? What happens?

Unknown Speaker 10:46 I pick up my list where I have written what to handle and what to shop. And then I take it. Just go around and pick that stuff up. Um, the little bit more that I find, and I would like to have at the moment, yeah, like chocolate and stuff.

Unknown Speaker 11:10 Were very similar in that regard. So before going shopping, you didn't check the Grow Your

Unknown Speaker 11:24 fridge or Oh, sorry. Yes, I do, of course. And I have me and my husband, we have this note in the phone that we can actually, if, for instance, the bay you we don't buy coffee every time of course. But when we see that we're out of running out of coffee, we arrive coffee on the interrupts less than what you call it in the

Unknown Speaker 11:51 insert list is fine. We can do Singlish. Thank you. No worries.

Unknown Speaker 11:57 So we have this together. Together shopping list in our mobiles, so we can put stuff in there

Unknown Speaker 12:07 soon sinks to each other. Yeah, yeah. Great. So when we Maria and I, we did some research, and we found a term called the good provider identity, which basically means that you as a mom, your behaviour affects your shopping behaviour is affected, because you want to be a good mom and provide everything your children want or might need. Do you think that term fits you?

Unknown Speaker 12:45 Yeah. Because, of course, my children can eat everything I put on the table. But I also know that it will be this, oh, I don't like this and so forth. And I do the easy way, then, of course, as you describe this, I cook something that I know they like. And that's the easy way out. And that one of the cases for instance, where we have mouth cancer, that even if they were able to choose what to eat one one day, the other ones wanted the other one, and well, it all this discussion, so I take these way out there. I'm quite in very many cases. I'm quite strict. But this is my soft spot. I just want them to eat and be quiet. Yeah,

Unknown Speaker 13:39 I am a sucker for that. Yeah. The easy way out that
Unknown Speaker 13:45 yes. So in the short run, of course, because yeah, in the long run, so it's not maybe it's not

Unknown Speaker 13:54 the way Yeah. Do you think time constraints affect the way you grocery shop? Yep. Definitely. In what ways?

Unknown Speaker 14:04 Time and we, we have we work a lot and we have a lot of other, we have soccer for the kids and so on. So on a lot of doing in the weekend. So we just sent prioritise time for planning for shopping. Shopping is just you need to have food we like food, all of us. And we we have we have lots of food at home, but
planning for it. No, not prioritised? Because of course we should have we have time if we prioritise it of course, but we desert

Unknown Speaker 14:50 Yeah. So we just say that you if you're stressed and running out of time, would you say that you buy more or less stuff Have that isn't on your grocery list?

Unknown Speaker 15:04 No, I a bit more. But just a bit actually, because we go to the local store. But maybe we have to go to the we go to the GM axis sometimes as well, but not very much more. Maybe I didn't need to think about this. I, when I'm talking, I'm thinking about my behaviour. And, of course, it's sometimes more. Let's look at it. If we go to the local store that we do very often, it's it's like, what's on the list and maybe something one or two things more, because there's just a quick game and take the things. But if we go to for a bigger shopping, then we buy stuff like, Oh, this is it's cheaper here to buy cat food, for instance, let's buy that when we're here. Even if it's not out, but it's far more likely more economic to do that, or toilet paper or so.

Unknown Speaker 16:12 Yeah. I see. I think my next question might be into this oversized packaging or three for two offers. instead. Something you usually

Unknown Speaker 16:26 I'm not looking for it? No. But if I say it, I buy it. Yeah. But I'm not looking for it. Except for for instance, if it's like a coffee, you know, like coffee often have this so they're actually look before I take is it one or three? And if it's a special offer, I take it but if I'm not, if I don't, and yeah, ham is often two or three for one. I don't need that much. So I don't buy it. Coffee, toilet paper and chocolate if that's someplace

Unknown Speaker 17:06 Yeah, like in Swedish thought of or?
Unknown Speaker 17:11 Yeah. Yeah. Noodles. Always. Like yeah, that's just basic in our house. Now that's often pretend for a 444 pieces for 20 grammes or something it's, then I always buy four or eight or Yeah, man, I count it.

Unknown Speaker 17:33 Yeah. Do you think this 344342 affects your food waste? Nice. So

Unknown Speaker 17:46 I had a follow up question. We were talking about good provider identity. And you were saying that you of course, would like to take the easy way out. I completely relate to that. I also have children. But do you sometimes feel like you're preparing more food? Then you know that they would eat just in case that they would maybe require a second portion? Or do you always prepare a fixed amount and just go with that?

Unknown Speaker 18:14 Very good question. I always overdo because them they eat it's things like risotto or taco things that I know they will eat us lunch the day after, or maybe they can have it for dinner again. Because we as I said, we actually just eat dinner together in the family in the week to sell or like I'm saying like this The we doesn't eat dinner together two times a week because then with football I just for the children. So then I do food that they can more but they can eat it another day. Okay, some more. Now, what is Corona? If they doesn't my husband do because he was working from home really good question. But, but that's, that's one of the I think now when I'm talking about it, the oh, I don't like this that that I do show just so my children will like it because I think it's very, I think they should be eating more other stuff as well. But I know that they will eat it another day. So we don't have actually we don't have very much of waste there. Because they like it so they can eat it another day then.

Unknown Speaker 19:44 Okay, okay. So what I am understanding is if we give in to what children want, and we just pray like then we can actually view some of the food waste that we might have in our homes.

Unknown Speaker 19:55 Yeah, because I think so. And it's especially If the family doesn't eat together every day, because then the day, let me give you an example. If we today we have to stay Yeah, we will lead together the whole family today. And tomorrow, it's football and soccer and so on. And then it's just the children that we will provide with dinner. Me and my husband will eat just connected but have the sandwich in the evening, then. So then they can take the leftovers from today and heat it because I'm not sure I'm at home before they're going for the soccer game. But then I know, yeah, they can have the leftovers. And they know that they have leftovers to reheat. So and if we don't have leftovers to reheat, we have the noodles. Quick and easy. Yes. And they can do it themselves. Now.

Unknown Speaker 20:57 That was my question. Yes, please.
Unknown Speaker 21:00 So now we're going into storage, storing food. How do you store your groceries?

Unknown Speaker 21:09 Yeah, in their fridge freezer. And in that cabinet, what we call it, scaffold

Unknown Speaker 21:17 scaffold. And when you when you store the food, you have like a systematic systematic style stack and you store it in a specific order or just put it in

Unknown Speaker 21:36 sometimes, it depends. Sometimes we don't want to have an order, but sometimes I think in the storage

Unknown Speaker 21:55 it's quite messy. And then I do this well, what we have here and here and then I put the all the tactical things, for instance, in one place. So I have places for everything. But sometimes it's a mess. But everything has its place.

Unknown Speaker 22:14 Do you have anything like we have these best before dates, especially for the fridge?

Unknown Speaker 22:22 Yeah, I do when it comes fresh cream? Yeah, I do that because that is something that we use. But taco sauce. Not, I'm not sure if, like things that you can open and reuse. Then our sauce, for instance. Yeah, I'm not keeping track of until the next time I will use it and say okay, this was old or not. Yeah. But for the things I use frequently milk, often eggs and stuff like that. I have a system so put it all we have a system because it's depending on the children as well. They use it from the right side. So that we do

Unknown Speaker 23:09 nice. So moving on. So we can keep the time that we said
Unknown Speaker 23:17 okay, I just looked at my, my my next meeting was so it's fine for me. Just to know, okay, okay, a bit longer. So no stress.

Unknown Speaker 23:28 Awesome. Awesome. It's so nice talking about this, especially this, but

Unknown Speaker 23:37 I hear myself. God I'm stupid.
Unknown Speaker 23:41 Yeah. Yeah. We've done entire research regarding this. Yeah. If you have time so strategies, the store like meat in the freezer, if there's

Unknown Speaker 24:01 Yeah. This chicken Yes. Not meat because I really like we really enjoy meat and I would like to have the meat fresh. So that we often eat in the weekends. But meat is also bacon bacon I have in the freezer. So it depends on what kind of meat we're talking about. A bit nicer meat. It's not trees. I'm not freezing that
or eating it or buying chicken and bacon and soy and meatballs. We have in the freezer like

Unknown Speaker 24:40 the everyday Swedish stuff. Okay, so now we're gonna go into the cooking phase of the interview. Can you describe your cooking routine from deciding what to eat to clearing the plates

Unknown Speaker 25:01 Yes, I decide what to eat. I normally, if we have everything at home, then I just cook it. I do all the, if I have rice and shake chicken, I do it at the same time, of course I say but if you ask my husband, he does the rice first and then the chicken but I do it all at once. And then I put it on the table. And then I say now it's food. Let's say it's very effective. And I always say, Well, I'm starting to cook now. So in 20 minutes, there will be food on the table so that kids are prepared so they can do that. Maybe that wasn't the answer to your question. You mean help me?

Unknown Speaker 25:50 So my structured interviews so there are no right or wrong. But what do you usually cook on a weekday?

Unknown Speaker 26:00 That could be risotto and chicken, for instance. Or macaron? Macaroni and meatballs. Yeah, some pasta. It's also I'm quite good at cook things quite good if I'm doing things not for without recipes. So I know that the chiller like refreshing and cream for instance, that will make a pasta sauce and you put some bacon in it or cheese or ham and then you have some pasta and voila, you have a nice the dish. Yeah, so

Unknown Speaker 26:45 interesting that I'm gonna change order on the questions here. Because so when you implement improvise, yeah, do you think that affects how much food you eat or throw away or the leftovers

Unknown Speaker 27:06 that i i actually taken care of. For instance, we have some ham for the sandwiches that I'm saying it's expire soon then I can do a pasta on that. So and if I should be a little bit more nice to myself because if we don't have cream at home that time I don't go to the grocery store I had used milk instead with maybe cream fresh acid Yes, like that. So it's different if my this is when I do but this is in the we in for a normal day, but in the weekends especially Saturday I like to take a little bit more do it. Take some more time do some more effort about the foods it's very very different there. Then I can enjoy it. But then they for now choose it just problems I should solve or we should solve.

Unknown Speaker 28:09 So when you cook portion sizes food plate, I mean portion sizes. Yes.

Unknown Speaker 28:21 How I know how much do I do? Yeah,
Unknown Speaker 28:23 I do think about so my husband will eat this much. And my older kid will eat this much and

Unknown Speaker 28:35 yeah, yeah, just know that. Yeah, of course. Not. Of course. Yeah, I do. And if I am sometimes I know that well. My husband will not eat today because he's out of his working somewhere. Then i i just think Okay, should I do so I have leftovers for tomorrow anyway. So but so that I just do Yeah, I do person sighs because if it's only for my for instance, if if just food for one child. It just for her no leftovers often. But if it's for two or more, I do leftovers. Okay, if you do meatballs and macaroni is it just for one or for two? It's not leftovers there. Is that for me? Is that something you do when you're eating it?

Unknown Speaker 29:30 And does it differ when you cook with the from weekends?
Unknown Speaker 29:38 Yeah, and the weekends? i Oh, well. I think I'm fine staff
or planning for how many we are eating it. And if it's beat I know that one of my kids eats less than the other one. I just have that in mind when I buy Need to think but yeah. It just there is it's hard to be interesting to think about how I think.

### 7.5.5 Interviewee 5

Unknown Speaker 0:01 Do you have any questions before we start? No. So tell me a little bit about yourself.

Unknown Speaker 0:14 I'm a 53 year old two, with living adult two with two kids and the wife. We're living in luxury shopping. I work full time. I have been in the service. Working with people all my life. Now I'm in sales. been doing that for seven years. My wife, she's 48 years old. Our oldest our son is 19 just turned 19. He's finishing school this June. So during the students, which is the great thing, then we have an His name is Alvin. My wife's name is Christine. And we have our daughter she's her name is Amanda and she is turning 17 this year. Both goes to school and learned what works in them. So and we live in this small commuting neighborhood luxury shopping. been living here for 17 years. We'd like a

Unknown Speaker 1:20 nice nice
Unknown Speaker 1:23 pub me. For younger we my wife didn't work full time. Now when the kids are getting older.

Unknown Speaker 1:35 Yeah. Nice. So as you probably figured, this is about food and food. So in your family. First, you all live together. Yeah, nice. Who in the family is responsible for the grocery shopping? Nice grocery shop.

Unknown Speaker 2:02 I go to Willis. And it can sometimes and Lidl sometimes now with the price, the inflation the price is going up, and I'm very they offer during the week. So the weekly offers mostly, we figure out what to eat during the week. And if you have a 19 year old boy at home, you you need a lot of food. So you don't want to buy one package of chicken you buy two maybe three and new meat or whatever you do. But if I did the, I would say 90

Unknown Speaker 2:49 nice nice and how often would you say that you grocery shop

Unknown Speaker 2:59 sorry about this communication right now.
Unknown Speaker 3:03 Yeah, can you hear me now? Can you hear me?
Unknown Speaker 3:18 Can you hear me? Yes, yes, yes.
Unknown Speaker 3:29 Yeah, maybe we can turn off our cameras. It sometimes goes smoother with me if the cameras are turned off Can you hear us now?

Unknown Speaker 3:41 Yeah, yeah, I can also switch off the camera. So yeah, better? Yes. Okay.

Unknown Speaker 3:48 Yeah. So how often do you grocery shop?
Unknown Speaker 3:54 I would say two to four times a week. Yeah. Yeah.
Unknown Speaker 4:00 Okay, and what when you hear the word food waste? What comes late? Food waste. Yeah. What comes to mind when you hear it?

Unknown Speaker 4:17 Nothing. Nothing? Nothing.
Unknown Speaker 4:22 Okay. But you know what it is?
Unknown Speaker 4:26 No. Clue. Never heard about it. So.
Unknown Speaker 4:29 foodways not spin in Swedish.

Unknown Speaker 4:34 Mostly. Okay. Yeah. Okay, most senior food waste. Food waste. Wait. Oh, sorry. I didn't hear the waste. Yeah, yeah, no food waste, of course. What I think about it, oh, how do I What do I do to make a sniffle food waste as possible? Both I heard you say, when when, when I plan the cooking, I always plan to there should be some extra food, like I said with 19 year old. And we don't throw away much food here. Very little food which by the way, because if we have some extra food we make it for lunch today after going to work. So and I smell the food if, for example, milk is one thing over time today over time, the date, as long as you smell and taste it is very, very obvious if the food is not good. I mean, then you throw it, otherwise I don't throw it. If the cream is three days old, doesn't matter, you will smell it fresh. We throw away very little food.

Unknown Speaker 6:07 That's really good. How important would you say it is for you to avoid food waste?

Unknown Speaker 6:15 I would say 100
Unknown Speaker 7:40 Yeah, that's that's really good. So we have two more questions in this first section, and then we're gonna go into the deeper. So how digitally comfortable would you say you are? I mean that by using apps and digital tools in your everyday life.

Unknown Speaker 8:04 Very good. I would say. Very good.
Unknown Speaker 8:07 And the last question here. It's optional. You don't have to answer it might be uncomfortable. But how economically comfortable would you say you are right now on a scale from one to five? Where five is very and one is not so much.

Unknown Speaker 8:26 You mean? We're we are right now as a family or what do you mean? Like yeah,

Unknown Speaker 8:32 economic? Yeah, financially set.
Unknown Speaker 8:35 I wouldn't say five. Nice, nice. But that's something you've been planning for. I mean, make the saving and you work hard and don't spend money you don't have and

Unknown Speaker 8:50 things like that. Yeah, that's an easy way
Unknown Speaker 8:55 by cooking yourself instead of buying takeaway all the time you save a lot of money. That's being economic, economic and don't throw away good food. Yeah, a lot of money.

Unknown Speaker 9:10 Yeah. So next question. We are going to talk about planning. So when you go and grocery shop, how do you plan for that? What do you normally do?

Unknown Speaker 9:30 I plan from my head. My wife needs when she's just chopping wood. She does sometimes I would go about it. She needs to write it down. But I take on the head. I can cook from the head and I don't use recipes.

Unknown Speaker 9:47 So do you shake your pantry or fridge before you go? Shopping?

Unknown Speaker 9:52 You'd normally open the fridge 20 times a day and you see okay now we need milk now we need butter and if it's good price for example, Ray got, yeah, I buy two, because two months. You can use it you can use it for six months, no problem. And it's easy to save money. When you when you have money you can buy the things she used to love like coffee, butter, cheese, because it's a long haul. So then then you can like shopping like that you can save money. It's not for everyone because
everybody. Everybody doesn't have the same financial I don't say I'm rich. Absolutely not. But I think by shopping like that. I know I'm going to buy the coffee next week anyway, why don't buy two this time when it's cheaper?

Unknown Speaker 10:52 Yeah, we are very similar like that. So do you have a meal plan or food budgets in your family?

Unknown Speaker 11:03 No, no. No. We have we try. If we see something like if they have some fish maybe or some steak, we can plan or we would like to have we eat what we like but we will look at the ads for the week. And then you see okay, this week they have for example. Miss me. Okay, and then we make a huge pot of baldness for example. And Swedish meatballs whatever it may be. The chicken is on sale. Uh, well, we make chicken satay, we make some other barbecue chicken. So we we don't follow the meat and sometimes we do. But it's more random. Because I do the cooking is like what do we have in the fridge today? And then we'll do because we always have a lot of very important

Unknown Speaker 12:12 so you were when I'm getting you the economics affect your the way you grocery shop prices and

Unknown Speaker 12:24 yeah, it's a good price of chicken filet. I'd like to I don't know what I'm gonna do with it when I buy but I know that I have canned tomatoes. I always have cream at home. I mean, garlic, onions, carrots, veggies, other veggies. We always have that. So suddenly of fantasy that

Unknown Speaker 12:51 I agree. So can you describe your shopping routine when you get to the grocery store? Yeah. Could you walk me through a shopping session? Yeah.

Unknown Speaker 13:10 from the, from where I parked the car or
Unknown Speaker 13:14 just that I always
Unknown Speaker 13:16 parked the car close to the car thinks the car goes straight into the vegetables. I don't like to self scanning. Okay, cause I've been checked so many times. I get very irritated when you buy maybe 40001500 kronor, then you have to do this manually anyway. And you've done that a couple of times. So I start with the with veggies like they always start with and I buy what we need. We always buy. We always have potatoes, veggies at home. Green Pepper, well red pepper, and salad, tomatoes, cucumber, and comes to the branch and see what we have. If we need any bread. Our daughter likes the sandwich sandwich. We always have toast bread at home. And hard bread. Cuban we always have bacon at home. So when it's a good deal on the bacon, and we we like to buy Swedish food, Swedish meat. We try it. We don't go for them. Even if it's cheaper. I think we can afford to buy Swedish, Swedish meat, things like that. Why is that? Sorry.

Unknown Speaker 14:45 Why Swedish?
Unknown Speaker 14:47 Why? Because? I believe I'm not sure but I believe sometimes the animals are better off in Sweden than in other countries. I don't know for sure. And I never buy into hold because there is comfort but maybe 1015 years ago then they closed them off. I look very much in wholesale technique. I don't know what the name of it in English so it's not so many things added to the to the products I buy I don't go with the organic food sometimes I do but not that's not the important thing to me. The important thing is that it's not too many things put into the truth that I don't know what it is.

Unknown Speaker 15:44 Yeah

Unknown Speaker 15:48 I never buy a deep frozen meat because when you when you take them out of the freezer and in the in the sea a lot of water because they put a lot of sunblock in inside the meat. And if the wheat made way a little bit more than when you made the barbecue it or fried to see how the chicken fillet shrink the size twice. is half the size when you've finished cooking. That's what I think. Yeah. And then then I come to the bite the meat or whatever. Bacon and then comes to the weather. We always have soup at home. Gilda tomato soup, because it's when you don't have anything needs to be fast. Yeah. Some pasta and tomato soup. Quick Fix. The kids are very hungry. Yeah. And then yeah, and then like the cheese and sausage for the breath. And then if we need any, we have pity pan in the freezer. But that's also something when it's a good deal whereby maybe two packages have two kilos or three kilos and that the kids are friends at home acknowledged prior to the hash. So and then go to the milk, cream, sometimes yogurt, sour cream. And then if you need any spices or whatever, you do that and then you go to the cashier. That's typical shopping for me.

Unknown Speaker 17:51 Nice. So when we know I'm gonna do this question first those three offers. Yeah. Do you utilize them?

Unknown Speaker 18:04 Yeah, I do. When it's something that we use, otherwise, I don't

Unknown Speaker 18:10 know. Okay. Okay. So
Unknown Speaker 18:13 always coffee with a lot of coffee. So oh, what's when it's four, four. And now it's so expensive. But I mean, I always use even if I have five packages at home, I buy for more. Because this is something we use every day. I mean, so depending on what it is, and if we need it. Sometimes, because I work with sales. Sometimes you can you can sell something to person, and the person will never use it. Then it's expensive. By prefer to. Same with food if you don't eat it, and then you have the throat because it gets old, whatever. Expensive just because you don't need it.

Unknown Speaker 19:01 And would you say that time constraints affects the way you shop?

Unknown Speaker 19:08 The time
Unknown Speaker 19:09 constraints if you're stressed if you are running out of time does that affect your shopping behavior?

Unknown Speaker 19:17 No, I always do the same. I follow my routine
Unknown Speaker 19:25 so moving into cooking Yeah. What do you usually cook and for how many

Unknown Speaker 19:34 were for the family but there's always food for gifts. If I if I buy one kilo means me. I make baldness for the half kilo or to meet folks for the whole team or whatever. There's always cooked food in the fridge.

Unknown Speaker 19:57 Yeah, and how do you manage I guess when I cook lunch she'll have me it how do you manage the leftovers?

Unknown Speaker 20:06 You have a 19 year old son
Unknown Speaker 20:09 Is it convenient
Unknown Speaker 20:13 sometimes we just buy a kilo or he works out by Calum is me we have pasta and rice always just to when he gets hungry like a horse like with fans we learn there's not much leftovers I will say and then my wife brings to our job the day after or the day after that and I picked my job

Unknown Speaker 20:41 so you don't have any leftovers in the freezer than yes the fridge

Unknown Speaker 20:53 some depending if you make lasagna for example, make your home and maybe make lasagna for eight people. Then you slice it up and put it in the freezer so you can take it out but we always have like pity parties. Like if they if we don't eat the toast bread we put it in the freezer and then we eat it so we always have something and and one more thing if like a phone call we had one and it was the same day as if the date went out from the follicle and instead of cooking it because I didn't have any left for cooking I couldn't do in the freezer take it up and then you can you can use some fried up with pasta or whatever like yesterday we have sauce in the freezer for cold fog enough sausages not enough follicle call so to get the source fired up on over just like a phone call. But she likes Kerberos and sure itself so we find out that cabinets insurance someone's done and for the covenant on then we could make so she could have her sausage stroganoff and we could have ours. Yeah.

Unknown Speaker 22:32 That's That's nice. I also love it sure it's just like that. So I'm gonna I'm gonna see if we are running out of time so it might be a little bit jumpy. The next part of the interview but

Unknown Speaker 22:48 no problem.
Unknown Speaker 22:52 Do you eat as a family together? Usually?
Unknown Speaker 22:58 No. Unfortunately, because with the with the kids when they work out and they have a lot of things that are very active, and we we always did that when they were younger. No, it's difficult. Sometimes they stopped practicing around five and then they can't see it and then that our son comes home at seven then our daughter went away at work practice at 630 . So we like to eat as a family but we don't as much because of an active life.

Unknown Speaker 23:36 Yeah, obviously of course. And do you think this affects food waste?

Unknown Speaker 23:47 No, I don't think so. But for us you mean or for you for you? Because we don't have that much food waste. Yeah. I don't think it's a problem.

Unknown Speaker 24:03 Nice. Yeah, just to clarify, there's no judgment here and when we don't see each other convey that. And the do you eat out?

Unknown Speaker 24:27 Yeah. We went out on Saturday, me and my wife. Do you think

Unknown Speaker 24:33 eating out affects food waste at home? In your home?
Unknown Speaker 24:40 No, not really. Because we if we go out and eat, the kids don't want to join. We will they take you there on cooking we buy sometimes will be by topic of semi. The pasta for example. A two to three portion it says, you boil it for two minutes you have with basil, and you have with pressure to all different. And then they they can take tomato sauce and heat it up and then the pasta farmer so on and so on and basil on top. That's so we don't, we don't. So we always see that the fridge there is food so they can cook for themselves. It's not that I cook for my kids if I go away if they don't want me to, of course then do it otherwise.

Unknown Speaker 25:44 And jumping a little bit again, when How do you assess a debility of groceries? buy that. Look at it, smell it, touch it best before dates? How do you see if something is edible?

Unknown Speaker 26:07 With the eyes? I don't like I don't look at that is in a grocery shop. I don't I don't like people doing that I don't like people when they squeezed the avocados and squeezed them 20 different. I look at it. And I feel in my hand but I don't squeeze them this way. Then again, it's food waste. If I see, for
example, a good deal on what is 1 say? filet of beef. Even if it's the same day I can buy three kilos. No problem. I open it up the vacuum bag. I smell it. If it doesn't smell things strange. I can fly it and so it looks good. Then I can I make it into portions for let's say this is suitable for four people then I could put it in the freezer for the family foods like fine dining food or whatever. Or I see something else they sell out. Because it's a short thing that I can buy it and cook it. We don't eat it today. And not tomorrow, maybe on on on Thursday. That's the good thing when you don't plan the whole week. So then it can be a terrorist. How do you say this is? If you work it like that? You can really if you owe when you do I do shopping two to four times like I said easier to change the menu. But it's you never know what we're gonna have for dinner. Like now I don't have any plans for dinner. But I know I have bacon. And maybe we make a carbonara because I know I have cream, which went out 27th of March. I remember the day. I have to smell it. No problem because we have waffles on Sunday. That's what when I open it, or we make a lose control. We have egg, so it's easy. So that's why yeah, sometimes I just my mind floats out. That's how we do the cooking hero.

Unknown Speaker 28:47 It's really interesting. It sounds like it's the the food that actually conducts what you're eating as a family.

Unknown Speaker 28:56 Yeah. Yeah, absolutely. And what kind of mood I am. I mean, I came by for chef to one one and a half kilo. Do you know what your time? Yeah, of course. Yeah. And improve on on the barbecue? At don't have any plans for it. I just do it. And then we can have it in the fridge and slice it up and just eat it. We don't know if it's a good deal. It's so you never know. Are we having? Yeah,

Unknown Speaker 29:31 that's that's nice. Last last big question. You don't have any food waste per se. So I'm going to ask it in a different way. What is the in your closest surrounding is the biggest food waste factor. In other words, why do you have waste?

Unknown Speaker 29:55 I think people don't smell and look at the food They just if the date they moved away.

### 7.5.6 Interviewee 6

Unknown Speaker 0:00 They are. And they are about as soon to be 11 and 14. I work as a marketing manager for a company called chefs in Sweden, we supply floors, mostly known for our wooden floors. But we also have other types of flooring for hospitals and the education, the schools and the stores, etc. So for many different purposes, so that's basically what I do have a been working for 20 years roughly now. So RAM. Yeah, short about me live in a house

Unknown Speaker 0:41 in Malmo, alone and outside
Unknown Speaker 0:44 have learned in a place called Leadership.
Unknown Speaker 0:48 Oh, okay. Okay. So in your household who is responsible for grocery shopping?

Unknown Speaker 0:58 I would say me, yes. Okay.
Unknown Speaker 1:02 How do you grocery shop? Do you go to a store? Or is it online, or

Unknown Speaker 1:08 mostly, when I do the big when I you know, the big weekly topics, I deal with them online, I think it's very convenient to just click, whatever you
want to have. And then you just go and pick it up. Especially during the pandemic, that's been my main way to shop. When you're only going for, you know, that's a litre of milk that you're lacking or a piece of bread loaf or whatever it might be, then, you know, it's easier just to go and pick it up physically. But otherwise, I tend to I like the online shopping.

Unknown Speaker 1:41 How often do you do the online shopping?
Unknown Speaker 1:44 Once a week, I would say
Unknown Speaker 1:47 complimentary shopping is that?
Unknown Speaker 1:49 Oh, so maybe once a week.
Unknown Speaker 1:53 Okay, and how digitally comfortable? Are you with the application software?

Unknown Speaker 2:01 Would you say? On a scale of
Unknown Speaker 2:06 one to five or something?
Unknown Speaker 2:08 Then I would probably say for I'm getting frustrated with all the passwords that you tend to forgotten your username and the password. And it's always different from application or website to website. So that's the trestle, but otherwise, I'm quite comfortable with

Unknown Speaker 2:28 it. Sorry. Yes.
Unknown Speaker 2:30 No, no, no. Yes.
Unknown Speaker 2:32 I actually had a suggestion because I share that frustration. Yeah, yes. And I have like a note in my phone. Wherever I visit a new website, I just put the username and password in there along with the name of the website. So I don't forget, because the list is very, very long. And I get Yeah,

Unknown Speaker 2:50 I know. And it's really annoying. And sometimes you know, the computer, remember, so you know, your username and password. But then at some point, you need to update your password and things get messed up and then yeah, but good. Good idea. Yeah.

Unknown Speaker 3:05 Really helpful.
Unknown Speaker 3:06 Yeah, I can imagine. Maybe I should try that. Yeah.
Unknown Speaker 3:10 Awesome. And also this early in the interview, we have a very you don't have to answer but it's as a Swedish. You usually don't ask this, but on a scale from one to five, how economically comfortable are you right now?

Unknown Speaker 3:33 I would say five. Yeah. Yeah.
Unknown Speaker 3:36 Okay. Nice. questions out of the way. So what comes to mind when you hear the word food waste?

Unknown Speaker 3:48 I think it's a shame that we throw away, you know, so much food that we do. I think I'm, I'm happy when I see those initiatives, like you know, the rescue, taking care of fruits and making juices, smoothies, and whatever it is that they're doing. I think there are so much more that could be done. I think it's a shame that there are people going hungry every day while we throw away so much. So it's think it says should be illegal. That's, you know, of course, I don't mean that literally, but I think it's really a shame that we do it.

Unknown Speaker 4:26 Yeah, I agree. And how important is it for you to avoid household food waste?

Unknown Speaker 4:33 It's very important. I think, first of all, it's our responsibility as human beings not to throw away food. I tend to minimise it myself, I tend to plan more and I tend you know, when we have leftovers, we eat it or if we don't manage to
eat it, for some reason, we put it in the freezer and we have that for later on. They're always of course, waste. Anyhow, you know when the fruit gets bad or what everybody might be. That's a shame. Try to learn but yeah, I you know, try to remember not to go grocery shopping when you're hungry because that's when all that extra things.

Unknown Speaker 5:16 Exactly. I agree. I also have that when I grocer don't do it when you're hungry. Dangerous. Okay, so the next stage of the interview we have divided into planning, shopping, storing, cooking, eating, managing leftovers, and assessing eligibility. So the first section is going to be planning. So when you you mentioned you do online shopping, but before you do that, do you check your pantry or fridge before you go shopping?

Unknown Speaker 5:57 Yeah. Most of the time I do.
Unknown Speaker 6:02 And do you have a meal plan and food budget in your family?

Unknown Speaker 6:08 Not just food, but yet. We're lucky or fortunate that way. But we have a meal plan. With picker kids not eating everything, kind of, you know, trying to cook whatever they like to eat. So and then I'm you know, just making the list, what to eat in the next couple of days and buying whatever I need for that. Because once you're done for work, it's nice to have the plan knowing that everything is at home suggests can start cooking your meal, basically.

Unknown Speaker 6:38 So you don't do any grocery shopping after work.
Unknown Speaker 6:41 No, it's most often I would say, Sit down later in the evening with my computer and doing the online thing. And if I do anything after work is because we are lacking something for the dinner,

Unknown Speaker 6:54 basically. Yeah. Yeah. So you have a list, and then you search for every item, a website. And then

Unknown Speaker 7:10 yeah, and then sometimes you're you know, more spontaneous to, you know, you don't have a plan for what to cook, but you just basically cook something of what you have just, you know, throwing in whatever you have at home in there and making something out of that.

Unknown Speaker 7:27 Okay, nice. Now now it's going to be about shopping. So when we met when Maria and I did some research, we came, we stumbled upon a term called the good provider identity, which basically means that you as a mother get influenced by or your shopping behaviour gets influenced by you wanting to be a good provider for your children, you don't want them to get hungry, you want to spoil them a little bit. So on a scale from one to five, how much do you relate to this?

Unknown Speaker 8:06 I think for me, it's not about spoiling, it's more about making sure that they eat like you know, food that it's good for them and healthy for them. And with a variety of different you know, the costs of girl, whatever that is in English. Yeah, so making sure that they get a little bit of you know, pasta, meat, vegetables, and all kinds of things that not only eating the pasta and meatballs or whatever it might be, it's more in terms of that, but of course you want to make sure that they eat and but making sure that this food is good.

Unknown Speaker 8:42 I have a follow up question. You're not just okay. Okay. That is precisely the point with good provider identity. It is not just about like you said it's not about spoiling it is also by providing them with the nutritious food that their growing bodies need. Yeah, sometimes when we are shopping, because I myself am a mother and I have two growing boys. And it is a behaviour that I have seen in myself
and I have seen it in other people. And we have read about it as well that when you are shopping, you tend to buy more nutritious stuff. Instead of buying maybe one box of grapes, you would buy two or instead of buying one packet of salad, you would buy two in the hopes that your kid would eat that because you want you have a good provider identity in your head and you want your child to eat as much healthy food as possible. And what happens is when we buy all that we go home, they might eat half of it and the rest of it might go to waste. And that is a behaviour. So how would you relate to that?

Unknown Speaker 9:43 I would not say that I buy an extra package. I still only buy that one. But if they eat it, maybe I skipped the grapes because it's better for them to have it. So I wouldn't say I buy an extra package, but still making sure to buy the healthy food and if they do I don't eat I eat. So, yeah,

Unknown Speaker 10:03 yeah, mother's the always eternal days. Which means Yeah. Please go ahead. Yes,

Unknown Speaker 10:12 yeah. So time constraints is that something that affects your grocery shopping behaviour.

Unknown Speaker 10:26 I would say it affects my cooking behaviour, meaning that I don't do the meals that takes an hour to make every day, because you do the quicker ones. So in that sense, I buy the things that I can make on a shorter time. I don't deal with the chicken in the oven every, you know, week because it takes an hour or an hour and a half to make it. If that makes sense.

Unknown Speaker 10:54 Yeah. And when shopping, I'm sure there are, like these three for two offers big oversized packages to do you buy or take those offers or fall for those offers. Or

Unknown Speaker 11:12 if it's, if it's something that I when there is not a tight date, you know, like a fresh salad, maybe I don't need three. If it's like, you know, the concept of like the jar of mushrooms or puppet, you know, packages of pasta, something that will not be wasted a week or so, then I will absolutely take this way for two. Yeah, but not when I don't think that this is something that we will make yourself before it's you know, waste.

Unknown Speaker 11:45 Okay. So moving on to storing food. How do you store the food you buy?

Unknown Speaker 11:55 Well, like I guess everyone else in the, you know, refrigerator on the freeze, depending on what it is wintertime I use outdoors, for keeping drinks cold and things like that. But otherwise, you know, in scattery What in the you know? Yeah, yeah. Yeah, exactly. For the dry things. And yeah.

Unknown Speaker 12:21 So when when you store the food, do you have some sort of organisation? Like in the fridge, for example, you organise your food on different shelves? Or do you sort it based on some system?

Unknown Speaker 12:35 I try to organise, and I have a system, unfortunately, I'm alone with that system. So whenever someone else of the other three comes, this is my system gets messed up, if you know what I mean. So yeah. So I would say it I have a system, but it's I haven't implemented it very well. Apparently.

Unknown Speaker 13:03 They think space constraints affect your food, shopping and behaviour.

Unknown Speaker 13:16 I could have asked a good question. I am. Yeah. It's always a problem when you're like, if, let's say this weekend, we had people over for both
them Friday and Saturday, meaning I had to do a lot of shopping on Sunday, Wednesday. And luckily, now we have an additional freezer in the garage or a fridge. So I could store a lot of things there, which is good. But otherwise, you know, summertime so I think that is especially needed because you can't store anything outdoors either. So yeah, but I wouldn't say it affects my shopping to a big extent. Because we still have a full size free so that kind of covers our needs for most of the time.

Unknown Speaker 14:10 Yeah, I also have an extra extra fridge. It's golden. It's
Unknown Speaker 14:16 Yes. Yeah. Neighbours come and borrow some time.
Unknown Speaker 14:22 Yeah. Okay, so moving on to this thing. Can you describe your cooking routine from deciding what to eat to clearing the plates?

Unknown Speaker 14:35 So I'm always the one cooking I don't do the dishes because that's someone else does the dishes because I cook and plan. But if I don't have something planned for, you know, when the shopping isn't done the saying that we're doing this today I I kind of like to, you know, Freebase cook something out of We have at home because then I know I make use out of what we have and so yeah, I'm kind of the one making the cooking from beginning to end and with not so much help from the other side trying to get the other one to set the table but it normally doesn't work we tried to have a joint to dinner the four of us and once we have eaten we try to encourage the kids to take their plates away and put them at least on their you know kitchen sink if they don't put it in the dishwasher. And yeah, then yeah, ma'am takes over the dishes.

Unknown Speaker 15:42 What do you usually cook like an example look
Unknown Speaker 15:48 we tried to eat less of their you know, red meat like from cows and also pigs for environmental reasons. So it's a lot of chicken and fish and shrimps things like that. So but mostly mostly chicken in the some form everything from like a walk to grill it or to you know Yeah, yeah there are many things you can do with chickens so a lot of vegetables yeah

Unknown Speaker 16:21 yeah
Unknown Speaker 16:23 okay
Unknown Speaker 16:27 so next question when when you cook dinner what what do you usually regard like is there do you regard plate size how many people will be eating how much they eat?

Unknown Speaker 16:49 I I normally since we cook chicken a lot I always bring up like a kill of chicken because then we have leftovers for like for lunch or things like that the day after and the you don't need to make I like to make when I make you know a little bit extra because then you have for lunch or whatever it might be for the day after.

Unknown Speaker 17:13 And might be a hard question but but how do you cook do you follow a recipe or do you improvise more or

Unknown Speaker 17:20 I always improvise say rarely follow a recipe i i don't really you know, I'm not so interested in cooking and I really don't enjoy follow a recipe and when I do it it always gets warm because I don't read it through on forehand and then I'm having done something bad from the beginning so it's you know, them I prefer to do with my own camera we could probably taste better if I weren't your fault

Unknown Speaker 17:55 and that's the same on weekdays and weekends.
Unknown Speaker 18:00 Yeah. Yeah.
Unknown Speaker 18:03 So when you eat do you eat as a family together? Usually?
Unknown Speaker 18:08 Yes, usually we do.

Unknown Speaker 18:12 And another little weird question, would you say that you would produce more or less food per food waste per plate if your children were not eating that day?

Unknown Speaker 18:32 And I would say less because they are always the one not finishing whatever they put on their plates and whatever they have put you cannot store back into you know exactly so I would say they are the main reason for the waste that we produce in our house.

Unknown Speaker 18:57 Do you think eating out going to restaurants or ordering takeout affects your food waste at home

Unknown Speaker 19:09 and not at home because we order takeout and we don't finish everything that day. We save that even if it's a piece of pizza you can heat it up in the oven again the day after so no waste when we order

Unknown Speaker 19:28 can you tell me a little bit how you manage your leftovers?
Unknown Speaker 19:35 You mean the ready cooked meal leftovers?
Unknown Speaker 19:38 Yeah. Or any kind of leftovers you have how what do you do with it?

Unknown Speaker 19:45 Put him in like Florida in like a box and store them for like the next day or the coming day and try to eat it when like three days or so. If we haven't eaten it either. Put it in the Free, sir. Are we you know? Yeah. Yeah. So normally like that.

Unknown Speaker 20:09 Okay, and then let's see. I feel like I missed a question love. So moving on to assessing eligibility, how do you assess? If something is edible or not? Do you look at it, smell it, touch it best before days.

Unknown Speaker 20:34 And when it comes to best before dates, I was very rigid on that. Couple of years back, I threw it out immediately if the date has passed, but I'm, I'm very much more liberal when it comes to that. Now I smell it. Look at it. Of course, that's the first thing and if there is any growing on it, throw it out. Smell it, if it smells, okay, I try it. If it smells bad, I throw it out. And when I try it, if it's taste okay, then I assume it is okay. Because it doesn't taste nice if it's you know, if it's old to them. Yeah.

Unknown Speaker 21:16 Yeah, what made you change your behaviour regarding that?

Unknown Speaker 21:23 I think I became a little bit more mature, realising that it's not always bad just because the best before date past. So and also the fact that you know, there it's just I don't like throwing away things. Food, especially. I should say, I don't like throwing away food. So if it's not bad, there's no point in throwing it out just because there is a date saying something on amongs.

Unknown Speaker 21:53 So it's knowledge based if I put Yeah, or keywords in?
Unknown Speaker 22:00 Yeah, I would say so. Yeah.
Unknown Speaker 22:04 Okay, so now we have talked about planning, shopping, storing, cooking, eating, managing leftovers and assessing edibility. So, to conclude this interview, what do you think is your biggest food waste factor? What Why do you have food waste?

Unknown Speaker 22:28 I would say the fact that our kids doesn't finish. That is one thing. I would say also that sometimes when you know the the fridge is full, and something might become hidden behind something else, and you forget that you have it there or in the bottom of the vegetables drawer. There might be something that I Oh,
dammit, I forgot that I had bought this. And it gets old. Because I can see it and then think of it. So.

Unknown Speaker 23:06 Yeah, yeah, I can very much relate to that. I recently threw away a Mormon lab, dated 2016. I think so. Yeah. Yeah. But if you were to change that, how can you change that so you don't have food waste?

Unknown Speaker 23:30 I think when it comes to the kids, they should probably just put up a little bit less on their plate from the beginning. That will be one good thing, of course. And when it comes to the fridge, I was I was thinking about the question you asked earlier if the size of my fridge had any impact on the way I was shopping, but let's say that the fridge was twice the size. And you could really have like one shell for everything you put on your bread and one shell for all the milk and juice or yoghurt or whatever it might be and so that you could see whatever you have, so it's not so crowded, you don't need to pack it and hide things behind are the things and things like that, then I think you would get a better overview. Or even I'm thinking with all the digital capabilities that we have you there should probably be a function that it's not something maybe I could do this afternoon but it's if you were to like scan everything you put in your freezer or in your fridge. You could have like a list Oh, I'm aware this will you know best before date goes out tomorrow. Don't forget to cook your whatever it might be something like that. Would help but that's a Yeah.

Unknown Speaker 24:51 Just so bigger fridge easier to see.
Unknown Speaker 24:55 Yeah. Is it organised and Yeah.
Unknown Speaker 24:58 And it If you had a bigger fridge better overview of the food, how will that affect your life? When you say,

Unknown Speaker 25:13 but I will say I wouldn't hopefully not throw away something because I didn't know it was in there, because then I would hopefully see it and keep it in mind when I'm planning for dinner or the coming week, I have this spinach or whatever it might be. Yeah, so we'll probably as the planning and reducing the food waste.

Unknown Speaker 25:43 Nice. That's all my questions. Maria, do you have any follow up? Questions that I?

Unknown Speaker 25:56 No, actually, you covered everything. But I was really curious, because you were one of the few few candidates that we have for these interviews, who actually discussed online shopping and that they have been using this option. We have not seen that too often in other interviews. So I actually wanted to ask you a couple of questions in that regard, like, you shop online, because you think it saves you time? And yes,

Unknown Speaker 26:23 yeah. And I prefer to do the shopping, and calm and peace in myself as I'm going around in the store with all those other people and you forget something and then you need to go all the way back. And it's Yeah. And you don't need to carry it in the same way. And yeah, no, I, it's very convenient.

Unknown Speaker 26:43 I understand. And do you get it? Or do you pick it up from the shop?

Unknown Speaker 26:48 Normally I pick it up? Okay. It's like 200 or one kilometres away. So it's really no big deal? Yeah, yeah.

Unknown Speaker 26:56 Yeah, of course, of course. And does that affect your impulse buying as well, because of course, when you're in a shop, then you buy things. You look at things and you see, okay, maybe I need this, maybe I need this. happened
when you're shopping online,
Unknown Speaker 27:13 not to the same extent, I there was like a button, you can click in and see the campaign's of the offer for the week. So I go in and click and look at that, because maybe there is a big discount on I don't know, toilet paper, then I might as well buy that this week instead of next week, because I know I will eventually need it anyway. But otherwise, I have my list. And if I'm in the shop, it's as you say, especially if you're hungry, say Oh, this looks nice, you know, this would be fun to make or whatever it might be. So it's, you know, always more bananas when you're in the store. So I think I'm more efficient and stay to my list more when I do the online shopping.

Unknown Speaker 27:59 That is amazing. And do you see any challenges, like sometimes the packages might be too big, or you only need because if you're cooking from a recipe, or you have a certain amount that you want to shop, or maybe you need half, one teaspoon of something that comes in 200 grand packaging,

Unknown Speaker 28:18 then I figure I will probably you know, use the rest at some other time. If there there is like sometimes I do because I was making something I got a tip from a person when they served us like I don't know, the weather in English, spits coal, whatever, like it was really delicious. So then you were supposed to have like truffle oil on that. And I have never used that before. So I went to buy. It was not bigger than that. But it was I would have I only needed a few drops of it. And it only lasted for like two weeks after once you open the bottle. So that was a waste, obviously. But I also noticed that it worked after a month or two as well. But still I didn't use the entire bottle. So that's a then it's a waste, of course. And that's a pity. Yeah,

Unknown Speaker 29:11 please go ahead. Yeah,
Unknown Speaker 29:12 no, I was going to say something but I I lost that thread. It was about shopping and about now, it will come back to me. Go ahead. Yeah,

Unknown Speaker 29:28 that's good. That's good. So we want to summarise this online shopping good because you say time you can do it in peace from your home. But sometimes when you're following a recipe, you have to buy bigger packages and sometimes some of it go to what goes to base because you simply cannot use it in time that it's supposed to be the same.

Unknown Speaker 29:49 Yeah, but I would say the only time that happened is the truffle oil example. I haven't that have hasn't happened to me otherwise. One other probe than that with online shopping now I remember was what I was going to say was because you see this small images, and then there is a text on size and cost per kilo, whatever it might be. And so let's say I was about to buy a bottle of sparkling water. And so I bought like two. And when and I didn't look so much in thoroughly, because when I got the, you know, when I was unpacking my bags, I got the small bottles of I was intended to buy the big ones. So I didn't read, you know, the texts that explain the size, which, you know, but things like that happens every now and then because I'm rushing through. So unless that okay, there it is click and then it's the wrong size. So, yeah.

### 7.5.7 Interviewee 7

Speaker1: [00:00:00] Då startar den. Har ni några frågor innan?

Speaker2: [00:00:06] Vi börjar bara vänta lite. Vi har barn och ska absolut inte de stör oss.

Speaker1: [00:00:15] Det är.
Speaker3: [00:00:20] Men vi har inte varit med om det. Är det så att ni inte förstår så får ni gärna upprepa igen så att vi förstår?

Speaker1: [00:00:27] Absolut. Det här kommer att vara väldigt kemiskt strukturerat så det blir lite åt samtals hållet. Okej, det är bara att säga till och hojtar om det nu.

Speaker2: [00:00:57] Men. Och.
Speaker3: [00:01:09] Ni kan gissa vilken.
Speaker1: [00:01:14] Just nu är det hur långt som helst, men jag tänkte börja med att. Kan ni berätta lite om er själva? Vilka är ni? Var jobbar ni och bor och barn?

Speaker3: [00:01:28] Där bor jag och jag jobbar som sjuksköterska här inom vården och vi har. Vi bor i en villa på 165 kvadrat och fyra barn. Jag vet vad vi ska prata med.

Speaker2: [00:01:50] Och bor i en villa på fyra barn när jag jobbar i Köpenhamn.
Speaker1: [00:02:00] Eller hur gamla barnen.
Speaker2: [00:02:03] Snart 16, snart 13 april 10 och den 25 februari. Vi har två varje vår.

Speaker1: [00:02:14] Härligt härligt.
Speaker2: [00:02:17] Old school.
Speaker1: [00:02:18] Och det kan jag tänka mig i er familj. Vem är ansvarig för att matinköp?

Speaker2: [00:02:30] Båda behandlas på samma sätt så blir det ganska bra. Blir det alltid samma sak handla mat.

Speaker3: [00:02:38] Storhandla. Sen kan det vara små grejer, men det är vi båda.
Speaker1: [00:02:46] Hur ofta storhandlar ni?
Speaker2: [00:02:50] Eller kanske.
Speaker3: [00:02:51] Storhandla varannan. Det är ju behändigt varje vecka också, ibland på helgerna.

Speaker1: [00:02:58] Sedan kompletterar ni dåligt om mjölken har tagit slut eller.
Speaker3: [00:03:02] Bröd och sånt.
Speaker2: [00:03:06] Det händer att vi ska handla ibland. Frukt och grönsaker.
Speaker1: [00:03:13] A. Handlar ni på samma ställe och storhandlar och är mindre eller?

Speaker3: [00:03:19] Ja, oftast är det på Willys och Citygross. Våra favoriter vi handlar där och sen har vi också en ICA nära som är där jag jobbar. Oftast på väg hem så handlar bröd och kan vara grönsaker som man säger liksom mjölk eller någon sås eller om det är någon tacos, något liksom extra. Och så springer jag förbi där innan jag kommer hem.

Speaker1: [00:03:47] Ja, lite efter jobbet. Och ja, de är båda. Eller?
Speaker3: [00:03:54] Det händer ibland och ibland gör det.
Speaker1: [00:03:58] Vi hinner precis precis. Och. När det kommer till digitala hjälpmedel, applikationer, program och så. Hur bekväma är ni att använda det?

Speaker2: [00:04:17] När jag har skaffat ett kort på telefonen i Danmark handlar det när man har telefonen till allt. Och så har vi en kille från oss när vi går ut och fikar.

Speaker3: [00:04:31] Och jag tror jag förstår nog inte riktigt frågan vad det var du frågar digitalt? När man handlar digitalt.

Speaker1: [00:04:39] Nu tänker jag om digitala. Att bara använda appar i vardagen till exempel. Eller program, datorprogram, appar.

Speaker3: [00:04:51] Då jag själv jobbar inom sjukvården som telefon rådgivare. Vi har ju våra egna där vi liksom ska dokumentera och gå in på olika sätt där. Men sen om man ska gå in mer avancerad är ju bekväm. Det beror ju på vad det handlar om.

Speaker1: [00:05:11] Vad var det jag frågade den här frågan för i vår uppsats? Vi måste göra någonting digitalt eller ta fram någonting, en typ av digital applikation eller liknande för att det är därför den frågan kommer in.

Speaker3: [00:05:30] Ja, ibland är det som digitalt att man ska svara på frågor och samtidigt kan man ju gå in. Det får man ju oftast. Kan du svara på detta? Det funkar ju bra.

Speaker2: [00:05:40] Sedan vi det för kryptering, då får vi det på telefon och då händer det att vi får också en ny. Har vi rabatt på Ica och nu har vi liksom Citygross?

Speaker3: [00:05:53] Medlemskapet var ju att man skulle ha ett eget kort på ICA där. Nu kan man ju bara fixa det via banken på kortet. Det har också lärt mig.

Speaker2: [00:06:06] På det viset att sedan.
Speaker1: [00:06:08] Är perfekt. Jag. Har svar på den frågan.
Speaker3: [00:06:15] Jag hoppas vi fick svar på frågan.
Speaker1: [00:06:17] De frågorna är också lite luddigt formulerade för att vi ska få ut så mycket som möjligt av intervjun. Men vi fortsätter. När ni hör ordet matsvinn, vad tänker ni på då?

Speaker3: [00:06:35] Då tänker jag på att det är billig mat och att man kan använda det igen. Och det finns faktiskt billigt framför allt. De har ju de stora paketen som man säger att de är inte hela fina kanske, men man kan använda ändå och då de har dem i ett hörn. Det är ett paket för 20 kronor och då kan det finnas salt. Det kan finnas sallad, lök och sånt och ibland har man kört förbi där och man har sett att den är liksom okej. Har jag faktiskt tagit med mig. Jag har ju som sagt fyra barn och det går liksom inget. Maten blir inte så gammal om man säger så. Man kan använda i stället för att slänga. Och det finns ju även på Citygross har jag sett att de har börjat använda det, liksom bananer som är pickar och som ingen vill köpa med en hel påse. 10 kronor kan man ju ta med sig och markera var inte milkshake eller smoking eller något annat. Så att det funkar bra.

Speaker1: [00:07:38] Ni brukar köpa dem också?
Speaker3: [00:07:40] Ja, det händer faktiskt.
Speaker1: [00:07:43] Men i ett hem och familj. Hur viktigt är det för er att undvika matsvinn hemma hos er?

Speaker2: [00:07:52] Vi försöker planera ganska bra nu och se vad barnen gillar eller mindre kan man säga.

Speaker3: [00:08:00] Jag försöker inte slänga maten utan jag tar ju alltid matrester till jobbet. Det gör jag. Det kan finnas. Ibland gör vi spagetti och köttfärssås och köttfärssås över då. Dagen efter kokar jag lite ris, vete en annan rätt. Men att använda samma istället för slänga tänker jag mig att det blir en och samma mat utan jag försöker variera och undvika att slänga så lite som möjligt.

Speaker1: [00:08:30] Det är jättebra. Frysen är min mat också, eller är det bara har det i kylskåpet och sedan lagar det tätt inpå?

Speaker3: [00:08:42] Jag kan säga att det händer inte så ofta att vi fryser in för att vi är som sagt många och det som blir över oftast tar jag med till jobbet. Har du blivit
mycket över mat? Jag har ätit upp två dagar av den liksom. Det beror ju på vad det är för något ibland. Vi har haft stora fester exempelvis och det har blivit mycket mat. Då kan jag åka och lyssna. Men det händer inte så ofta utan vi lagar mat varje dag nästintill.

Speaker2: [00:09:11] När man har barn som håller på med sport så går det mycket mat väldigt fort.

Speaker3: [00:09:15] Och då kommer jag även hem från sporten. Så är det. Även om vi är många som inte slänger så mycket.

Speaker1: [00:09:30] Så vad är det för aktiva tonåringar då? Nu kommer sista frågan på den här delen. Ni behöver inte svara om ni inte vill. Men på en skala från 1 till 5. Hur ekonomiskt bekväma är det här ett är? Det är lite tajt och fem. Vi har så vi klarar oss och mer därtill.

Speaker2: [00:10:01] Fem.
Speaker1: [00:10:03] Sex. En fråga man inte frågar sig.
Speaker3: [00:10:09] Men vi har det bra faktiskt.
Speaker2: [00:10:11] Vi har ganska bra koll. Har man fyra barn så ska man inte.
Speaker3: [00:10:16] Vi har och vi har ju bott i samma grupp och vi har jobbat länge tillsammans i nästan 20 år. Vi har ju haft medgångar uppgångar så vi har provat på det har båda.

Speaker1: [00:10:28] Härligt! Så nu hoppar vi in i lite frågor som handlar om planering. Hur gör ni när ni planerar matinköp?

Speaker2: [00:10:45] När vi.
Speaker3: [00:10:46] Beskriver.
Speaker2: [00:10:48] Öppna kylskåp är det bästa för dig?
Speaker1: [00:10:51] Ja.
Speaker2: [00:10:52] Och så är det också med tjejerna som är där, om bara de kan tänka sig vad vi kan tänka oss. Sen kommer vi också lite grann efter priserna. Vi handlar mycket. Vill man också att man förtjänar lite?

Speaker3: [00:11:10] Vi är i alla fall på weckoblad varje vecka. Sen har jag ju även en app där det finns. Varje vecka finns ett erbjudande vi kan vara och det kan vara grönsaker. Det är därför priserna och då är det när det gäller storhandla lite extra just där. Ibland kanske en halv vecka eller ost som i kampanjen, kanske till slut. Då kan jag ju köpa det lite längre. Men oftast när vi får vår lön kan jag säga. Då handlar vi ganska mycket så att vi klarar oss. Varje vecka så vill vi givetvis.

Speaker2: [00:11:54] Hur vi planerar. Vi kollar också vad är det som fattas? Vi vet också. Har inte råd med att de sparar mycket som frukt och grönsaker och det går mycket och det planerar vi på att vi köper eller köper. Mer kan man säga.

Speaker1: [00:12:13] Och då tror jag att jag har förstått ni det här erbjudandet. Får ni hem det på posten alltså fysiskt papper.

Speaker2: [00:12:23] Både posten och digital tänder att vi får. Nästa vecka har vi ett pris, vilket är lönen? Planerar vi istället för en kanske det handlar om stället.

Speaker3: [00:12:35] Handla handlar. Idag har jag fått en inbjudan och nästa vecka har vi också köpt ett hus där vi behöver tänka på att det snart tar slut i stället.

Speaker1: [00:12:45] Ja, precis. Och har ni i familjen någon typ av vad heter det? Mat, plan eller? Eller ja.

Speaker3: [00:12:56] Vi planerar inte vad vi ska äta imorgon. Ibland händer det. Vad vill vi ha i dag? Säger alla. Kanske vill man spela den andra? Okej, vi planerar,
men vi har inte önskemål på att de ska vi verkligen göra detta och detta utan jag kan ställa frågan som många olika förstår.

Speaker2: [00:13:18] Samtidigt pratar vi om det som igår var det. Vad ska vi göra imorgon? Vi tar lax, men det gör vi det. Har vi tagit fram lax under tiden lax ikväll så vet vi det.

Speaker3: [00:13:29] Vi ställer en fråga och ingen svarar inte gör det som är lättast. Speaker1: [00:13:36] Ja förstör.
Speaker3: [00:13:40] Har ni någon kontakt med Mike? Det måste vi följa utan det kommer ibland lite spontant och sen jobbar man. Jobbar man en lång dag så blir det en ganska snabb måltid på skolan eller skolan. I ett samhälle som alltid.

Speaker1: [00:13:58] Tar längre tid. Har ni någon mat budget?
Speaker3: [00:14:05] Utsikten är lite upp och ner. Vi har liksom inte dessa pengar som bara går till mat och ingenting annat. Inte riktigt säger jag utan det blir på kalas. Då blir det ju lite högre.

Speaker2: [00:14:21] Då vet vi alla lite mer.
Speaker3: [00:14:25] Det är summan vi lägger på på mat.
Speaker1: [00:14:29] Nä, jag ville bara höra era tankar om ni har någon. Ni behöver ingen summa hur mycket ni?

Speaker2: [00:14:34] Nej.
Speaker3: [00:14:36] Vi har ingen som tar emot. Jag vet att många har satt in pengar bara för mat och det har vi inte, utan vi handlar liksom det vi behöver och är det. Vi har ju fyra barn ibland. Det kallas ibland släktträff. Vi går ju med alla medel.

Speaker1: [00:14:53] Och tror ni alla, inte bara er familj? Tror ni att planering påverkar hur mycket mat som slängs?

Speaker2: [00:15:05] Nu tror vi inte heller på skriftliga platser, men vi planerar ändå nu när vi vet vad barn äter mer och mindre äter. På så sätt har vi planering i alla fall och vi vill inte att maskar kastas och vi vill inte att det ska värvas. Det ska köpas mat som barnen äter.

Speaker3: [00:15:29] Men det är klart, en insamling krävs nog för att inte mat ska slängas.

Speaker2: [00:15:34] Jag tror att det är.
Speaker1: [00:15:37] Och tror ni det? Planering i ett hem mer specifikt påverkar hur mycket eller hur lite mat som slängs.

Speaker3: [00:15:48] Men jag kan säga att jag stod mest för lagringen och det är sällan jag slänger mat. Det händer ibland, men det är sällan roligt längre.

Speaker2: [00:15:58] Om det har gått mer än ett par dagar så kastas det, men inte om det är en dag, två dagar gammalt.

Speaker3: [00:16:05] Det som slängs längs det som är påtagligt som de inte är det.
Speaker2: [00:16:09] Men ofta har vi också ganska höga krav på våra barn att det är på tallriken du får äta färdigt innan du lämnar bordet.

Speaker1: [00:16:19] Ja, är intressant. Jag tänkte att vi måste skynda på det här. Prata om shopping eller handling mer specifikt. Kan ni beskriva lite kortfattat hur det går till när ni handlar på den när ni handlar mat?

Speaker3: [00:16:37] När det handlar om specialister ska han skriva upp det som saknas och sedan under tiden lägger vi på mer än vad vi har planerat. Ibland kan det vara så att det är kampanj mot det. Vi köper det så att det blir. Vi handlar inte bara det som är på listan kan jag säga, utan det läggs på lite extra.

Speaker1: [00:17:01] I.
Speaker3: [00:17:03] Korgen i korgen. Det är därför jag är den som handlar via nätet och kan säga att det är bra, säger de. För att bli en man i affären blir man ju lottat på annat som man lägger till lite extra intressant.

Speaker1: [00:17:17] Det är faktiskt min nästa fråga. Har ni någon gång testat att handla mat på nätet?

Speaker3: [00:17:24] Nej, det har vi faktiskt.
Speaker2: [00:17:25] Nej, det har vi inte.
Speaker1: [00:17:27] Varför inte då?
Speaker2: [00:17:29] Det har inte blivit av.
Speaker3: [00:17:30] Och jag har ju hört av mina kollegor att ofta ska man handla via nätet så tar de ju. Var och en som kan gå ganska snabbt förstår du, vilket inte är så lämpligt. Men jag i alla fall har koll på datum, på bröd och.

Speaker2: [00:17:48] Mjöl, på.
Speaker3: [00:17:50] Det som är en.
Speaker2: [00:17:51] Lite längre livstid.
Speaker3: [00:17:53] Vilket handlar på nätet. Då får de ju oftast datum.
Speaker2: [00:18:01] Det är också här. Och.
Speaker3: [00:18:03] Får du ju se hur det ser ut du kan plocka, känna.
Speaker2: [00:18:07] Efter och.
Speaker3: [00:18:09] När man får det via via nätet så tar de det som inte är det.
Speaker2: [00:18:15] Som står fram.
Speaker3: [00:18:17] Och som är man där. Jag vill ju att alla ser varann. Är det ny vecka? Jag vill inte ta den då utan jag vill ta den definitivt också.

Speaker1: [00:18:30] Har ni prövat några sådana här matkassar?
Speaker3: [00:18:33] Jag vet.
Speaker2: [00:18:35] Inte. Jag har inte råd.
Speaker3: [00:18:39] Vi bor nära barnen så jag har inga problem att gå och handla där.

Speaker1: [00:18:44] Där är vi väldigt lika. Jag är heller inte testat.
Speaker2: [00:18:49] Det kanske kommer.
Speaker1: [00:18:50] Det kanske kommer efter det här. Tror ni att handla matvaror online? Har en positiv eller negativ påverkan på matsvinn?

Speaker2: [00:19:03] Jag tror det har en positiv, för hur många har det bestämt? Och så får du det du har skrivit ner. Du får inte mer som man blir lockad till och mötena med två har många äldre och sjuka och dåliga som orkar inte ta sig till Ica och handla. Så på så sätt handlar det om hur de vill i stället för att kasta saker som de inte behöver.

Speaker1: [00:19:29] Ja. Och sen nu har vi snackat lite om mat och hur ni kommer hem efter att handla mat. Hur står det i hur förvarar ni matvarorna?

Speaker2: [00:19:44] Alltså det som ska in skjulet ska naturligtvis och frysen och sen resten. Vi lägger mycket frukt framför barnen. Vill gärna se hur det ligger i en stor fabrik som pasta som ligger i hyllorna.

Speaker3: [00:20:01] Och äta kött. Det har vi inte råd att dela. Men det som ska in i frysen, i kylen.

Speaker2: [00:20:13] Inför ett glas eller precis.
Speaker1: [00:20:17] Har ni någon speciell typ av sortering i kylskåpet? Har ni någon? Sorterar ni.

Speaker2: [00:20:24] Med mjölken? Mjölken står oftast till en person som har mjölk och ketchup och.

Speaker3: [00:20:31] Vi har våra lådor, grönsaker och frukt. Jag lägger också in i kylskåpet ska vi måste storhandla om vi inte lämnar allt. Det blir nog bara att gå in för ett par lägger gärna i kylskåpet. Det var länge. Sen har vi rådande läge på potatis och mjölk. Vi har lite av vad.

Speaker2: [00:20:58] Man kan hitta.
Speaker3: [00:21:01] På ett ställe som alltid brukar vara.
Speaker1: [00:21:05] Precis matlagning. Vad brukar ni laga? Låt säga en vanlig veckodag. Vad laga mat?

Speaker2: [00:21:17] Jag undrar.
Speaker3: [00:21:17] Om spagetti och köttfärssås.
Speaker2: [00:21:19] Kyckling med is.
Speaker3: [00:21:21] Köttbullar.
Speaker2: [00:21:23] Och stroganoff. Mycket om.
Speaker3: [00:21:26] Soppa.
Speaker2: [00:21:27] Potatis, köttbullar.
Speaker3: [00:21:31] Och.
Speaker2: [00:21:32] Lax. Vi äter mycket fisk och så spelar lax med andra fisk.
Speaker3: [00:21:41] Men det ska gå rätt snart.
Speaker1: [00:21:46] Äter ni hela familjen tillsammans?
Speaker3: [00:21:48] Vad ofta? Oftast är det oftast på kvällen.
Speaker2: [00:21:52] Då dyker vi framåt.
Speaker3: [00:21:55] Ibland innan vi ska jobba och äta.
Speaker2: [00:22:03] En macken som ska iväg och träna med vår dotter som börjar klockan 18:00.

Speaker3: [00:22:08] Så vissa dagar blir det inte värt alla.
Speaker2: [00:22:13] Träningar.
Speaker3: [00:22:14] I veckan. Ni försöker.
Speaker2: [00:22:17] Hjälpa.
Speaker3: [00:22:18] Henne?
Speaker1: [00:22:19] Ja, och när ni lagar mat, brukar ni följa recept eller är det mer improviserat.

Speaker3: [00:22:28] Innan ni kör mindre? Det har jag. Mina egna recept att smaka.
Speaker1: [00:22:40] Skiljer det sig från veckodagar eller helger? Är det samma.
Speaker3: [00:22:45] Rutiner? Det är sällan jag skulle säga jag hoppas inte, men jag kan de utantill. Som om det skulle vara mer avancerade och började ofta under lång tid.

Speaker2: [00:22:59] Vi är ganska glada för starka kryddor och lite mer salt än vad det smakar. Maten smakar med salt och peppar. Om vi Balkanländerna som du är glad för? Ja, det är barnen glada för också. Ja.

Speaker3: [00:23:19] Men lite mat som tar lite längre tid är lång och det gör vi oftast på helger när vi har mer tid. Men annars blir det svenska rätter på vardagar kan jag säga. Det går snabbt. Sånt som går snabbt att göra innan maten på bordet?

Speaker1: [00:23:37] Ja, och nu kommer det en liten fråga. Så häng med här. Tror ni att ni skulle ha mer eller mindre matsvinn per tallrik om era barn inte åt under den middagen?

Speaker2: [00:24:01] Faktiskt.
Speaker3: [00:24:01] Så visst att du menar att vi är och inte ett barn är ett litet mer eller mindre barn. Jag tror du tror det blir mindre. Oftast kommer de från träningen och en roll ska bara ätas.

Speaker2: [00:24:17] Ibland vågar de inte vara med på tallriken, de vill bara äta över.

Speaker3: [00:24:23] Jag har tagit dem och så har jag lagt ned otroligt mycket själv. Ibland mest mot att jobba hårt. Jag tror inte det blir mer eller mindre.

Speaker1: [00:24:36] Det är en intressant och. Att gå ut och äta på på restaurang. Tror ni det påverkar matsvinnet ni har hemma? Eller ja, ni kanske förstår min fråga.

Speaker2: [00:24:55] De kastar middag på restaurang, restaurang vill hem.
Speaker1: [00:24:58] Jag menar, ni går ut och äter. Om det påverkar maten som ni redan har hemma.

Speaker2: [00:25:08] Det känns inte.
Speaker3: [00:25:10] Alls. Jag kan säga att våra barn är att de är duktiga på att äta. Som jag kan tycka att även det vi beställer på restaurang då de ofta så länge du.

Speaker2: [00:25:27] Orkar.
Speaker3: [00:25:27] Äta gillar inte maten mindre. Jag gillar maten.
Speaker2: [00:25:32] Du ska provsmaka, alla ger det en chans och gillar inte det. Så har det i alla fall lite. Du ska inte fylla på tallriken, bara få kasta den där. Det är okej, precis så. Men vi är oftast ute på fredag, lördag eller söndag då vi är ute på restaurang och då vet de att du ska provsmaka lite mer. Kasta inte mat, helst inte.

Speaker3: [00:25:59] Exempelvis som Nutella sa jag. Jag kan säga att vi beställer en villa som är fem år och äter från oss. Det är så vi beställer till alla utan vi beställer liksom.

Speaker2: [00:26:14] Till en pizza. Sen vill de ha mer så köper vi. Det ska inte kastas.

Speaker3: [00:26:20] Om att den lilla tjejen som har.
Speaker2: [00:26:25] En bit av oss.
Speaker1: [00:26:29] Härligt! Vi har ungefär fem minuter kvar på den här halvtimmen. Så sista frågan angående mat? Hur bedömer ni om någonting är ätbart eller inte? Vi har ju. Man kan titta på matvarorna, lukta, känna, kollar på bäst före datum. Vad gör ni?

Speaker3: [00:26:55] Men det gör detsamma. Ibland kan det hända att mjölken dolt något jag häller upp och tittar. Det är. Det är det inte nu. Ibland har barnen också sett att man har fått titta på mjölken och smaka på 70 åringen. Men är det inte så? Om man använder barnet.

Speaker2: [00:27:19] Så är det frågade, lukta, känna sig, ha smaken.
Speaker3: [00:27:28] Göra en liten bit.
Speaker1: [00:27:32] Ja, så bra. Då är vi egentligen i slutet och vi har gått igenom lite olika delar i ett sms. Mat stege. Sista frågan är vad tror ni att är den största matsvinn X Factor är?

Speaker3: [00:28:01] Matchen bevisar att våran största vinstmaskin någonsin gäller. Det att det finns mest slänger menar du?

Speaker1: [00:28:10] Det är alltså varför ni är den största faktorn.
Speaker2: [00:28:15] Varför våra är våra största mat när det gäller matens matsvinn är att det har gått ut datum. Bröd eller mjölk eller ost eller ketchup? Eller när du gått
ut och kastar vi det som bröd. Du kan inte hoppa.
Speaker3: [00:28:36] Fram genom brödet utan köpa det som vi håller på.
Speaker2: [00:28:43] Med, brukar.
Speaker3: [00:28:45] Brödet och.
Speaker2: [00:28:47] Det har gått att öppna.
Speaker3: [00:28:50] Oftast konsumerar.
Speaker2: [00:28:52] Vi så mycket.
Speaker3: [00:28:57] Som möjligt om man så vill. Det tror jag.
Speaker2: [00:29:02] Bra.
Speaker1: [00:29:04] Hur skulle ni kunna förhindra det här?
Speaker2: [00:29:08] Men vi har försökt. Vi har mindre. Vi tycker att vi handlar efter behov, men det.

Speaker3: [00:29:18] Kan också göra är att man köper att man delar det i flera fack som en del av sitt inre. När man är det kan man göra om det, men det gör det inte.

Speaker2: [00:29:31] Nej, jag är inte så duktig på det.
Speaker3: [00:29:33] Är har rätt att vara. Men länge.
Speaker2: [00:29:40] Vi minns av att vi efter behov.
Speaker1: [00:29:47] De då? Ja, absolut jättemycket. Jag tänkte kolla Maria. Har du några frågor som jag suttit och antecknat mest?

Speaker3: [00:29:59] Nej, jag tror inte du har allt och det var jättefint. Vi har fått.
Speaker2: [00:30:04] Mycket och.
Speaker3: [00:30:06] Jag har inget mer. Om du är klar så kan vi deppa ihop.
Speaker1: [00:30:13] Ja, absolut. Det sista är väl att tacka så jättemycket för att ni tog dig tid och hjälpa oss med det här uppslaget som vi har. Att skriva det uppskattas verkligen.

Speaker2: [00:30:28] Nu ska jag tillbaka.
Speaker3: [00:30:29] Till Hagsätra, mycket.
Speaker1: [00:30:30] Tack vare.

### 7.5.8 Interviewee 8

Unknown Speaker 0:00 Thank you. I'm gonna start that right now. So I don't get. Okay, before we start. Do you have any questions for us?

Unknown Speaker 0:08 No, not really. Let's just get starting.
Unknown Speaker 0:12 Awesome. Okay, tell me a little bit about yourself. Who are you? Where do you live? What do you do for a living?

Unknown Speaker 0:21 I'm diversen. I live in mama been living there for approximately 1617 years now. I'm Danish. living there with my family. I work in Copenhagen. So I'm in between both countries a lot. I live with my family who contains my husband and my four kids.

Unknown Speaker 0:49 Oh, four kids, how old are the kids?
Unknown Speaker 0:53 They're 1411, nine and five.
Unknown Speaker 0:58 If you just continue thinking for like a couple of more seconds, I will have called your eldest son and told him that your mother does not remember how old you are.

Unknown Speaker 1:09 His mother doesn't remember a lot. Growing have to contain a lot information. Sometimes it takes time to progress, unfortunately. That is, yeah.

Unknown Speaker 1:25 Nice. So in your family, who is responsible for grocery shopping.

Unknown Speaker 1:33 It's both me and my husband. And we do the groceries. And sometimes there's everything something is missing, then we can also send the kids to bring in what's missing in that situation. But mostly it's me and my husband.

Unknown Speaker 1:46 And where do you grocery shop
Unknown Speaker 1:50 is different. I do like to look at the commercials that the different stores send to us or deliver at home. So it's more depending on what sales there is going on. And then mostly the vegetables you're buying, like the vegetable stores. And all that other stuff is more depending on where we are heading and what's on our way. We don't have a specific reference where we prefer to shop is more where we are in that situation and what the needs are. But mostly like you know, really scoop and eat can Lidl, and so on. And then we have the rapid stores where we do go groceries, where we also buy the halal meat, because it's not you cannot get it in the typical Swedish food stores. So for therefore we go to the Arabic stores. And in that combination, we also buy the vegetables and so on from there.

Unknown Speaker 3:00 I see. So if I understand you don't do any like monthly big shopping or more

Unknown Speaker 3:09 concerning to the big family we are it's more like weekly instead of monthly. So we do have the weekly shopping list. And for example meat and so on, it's more like on a monthly base. But like milk and bread, eggs, and those kinds of stuff, like everyday use is more like a weekly ongoing shopping actually.

Unknown Speaker 3:35 Okay, and speaking of something completely different out of the blue, how digitally comfortable? Are you, for example, by using apps on your phone and computers and so on?

Unknown Speaker 3:51 Do you mean by shopping? Or no? Yeah, in general? Yes, General. I do use them. I use them a lot. I use my phone a lot. And also apps and regarding to apps regarding shopping as well, to find good offers and so on. And so I use that a lot as well. Yeah. And also to keep me updated. Sometimes I actually also use the grocery list on the app. If I see something that I know I will forget. Then I added to my list as well. Yeah,

Unknown Speaker 4:25 speaking of the last Do you Is it like a combined list? So you have like one list for the family that syncs all over all your family's devices or is it just no it's mostly me.

Unknown Speaker 4:41 Yeah, okay. Yeah.
Unknown Speaker 4:45 So, what comes to mind when you hear the word food waste?

Unknown Speaker 4:52 Food waste, then mostly it is consuming too much and buying too March now use it within the data expires making more than you need and recycling as well.

Unknown Speaker 5:17 Recycling Would you
Unknown Speaker 5:19 care it's more like like the the, the form that is sweeter, you know, you have to divide your, all your garbage at specific boxes and so on. So in that
case, we are very aware of that with the food as well as the leftovers, if we throw out anything that how we have to use it. So the waste will be useful in another way.

Unknown Speaker 5:47 I see I see in your family, how important is it for you to avoid household food waste,

Unknown Speaker 5:55 it is important we really try to make as much as we can eat. And we also try to eat the leftovers over a couple of days. So we don't waste so much. And that's very important for us. Also to be more creative, if you have some leftovers to use the leftovers in another way. For example, if you have some chicken, so if you have your if you've add some bread with it, maybe you can make the rice the next day or more be more creative. So you really use what's leftover.

Unknown Speaker 6:30 Yeah, that's nice. And then the last question in this first section, you don't have an answer if it's uncomfortable, but on a scale from one to five, where one is not so much and five is well. The opposite how economically comfortable are you in your family right now.

Unknown Speaker 6:53 We're good, we I will say for you can always be better. I will say, for some people, it's not because we don't. We buy what we want to but we are still very aware of the prices. And I think that's also one of the conditions for that we are so large in our budget because we are very aware of where we buy it and what the price is. And we are very aware of the offers as well.

Unknown Speaker 7:22 Oh, I see. We're gonna go into that now in the next section a little bit more. So this section is about planning. And then we will go to shopping, storage, eating and so forth in the household food supplies shame. So planning how do you plan for shopping? What do you normally do

Unknown Speaker 7:46 we make a list of what we need to shop. And then again, as I mentioned before, as well we go through the good offers, so we know where we have to go for shopping, but it's not like listed divided. So remember, we remember we tried to stick to the list that we have so we don't do this in impulse shopping. So know what we need and we go we try to go after that.

Unknown Speaker 8:12 Yeah, did you set your pantry or fridge when you're planning?

Unknown Speaker 8:19 Definitely yes, we do check everything through what's missing I tried to also have a list on the fridge where for example if the kids use something then they can nicely right that this one is done so we know also what to buy. So we are very aware of what we have and what we are missing.

Unknown Speaker 8:40 So and when you're Do you have like a weekly meal plan or a food budget,

Unknown Speaker 8:47 that's a dream to have a weekly meal plan but that doesn't go so well.

Unknown Speaker 8:53 What was the
Unknown Speaker 8:55 break because it's very easy to it's very easy when you know what to cook because then you have a plan for the day and that will be a lot easier, much more easier for me to plan my day. But mostly it is more what we like to cook and what we like to eat so it can be a variety that but I have thought a lot about having a plan of the week about food, but it doesn't have we have we don't have any yet unfortunately.

Unknown Speaker 9:33 Okay, okay. And the food budget. Did you have one of those or?

Unknown Speaker 9:37 I do we used to have a food budget and I think we stick very well to it actually. Yeah. We have like monthly payment we have to account for the monthly the food and then we stick to that and if there's any holidays or anything specific upcoming I And then we add amount of that isn't necessary.

Unknown Speaker 10:07 Okay, and do you think in in general not not your just your family? But in general, do you think planning or lack of planning affects household food waste?

Unknown Speaker 10:23 If you have a plan, I think it won't be so much waste. So I definitely think that planning of food weekly can be a huge benefit. Because I can imagine a list of what you have to shop as well, then you don't do so much impulsive shopping, because you know, what you want to use? And you know, you have a plan. Yeah, you have a plan of what what the upcoming days will bring and what you have to use. So definitely, that will be a big, positive thing to have that.

Unknown Speaker 10:58 Yeah. And you think speaking of your family now that planning affects the amount of food that might be wasted in your home?

Unknown Speaker 11:13 Could be I think, if we plan more, it will, it will go to less food waste, I definitely think that,

Unknown Speaker 11:21 could you give an example.
Unknown Speaker 11:26 Could I give an example, I can give an example. For example, my husband, he likes a lot of vegetables. And my kids, they don't eat vegetables so much. So he, they prefer more meat. But for example, if they he wants the kids to try as well. So he maybe he cooks a bigger meal, because he expected kids to eat as well. But over time, they don't like it. And then we're actually a little bit more larger than we cook something else for them. Because of course, we want them to eat something. And then the the amount he made, it was too big. So in that case, we could actually have saved, he could have cooked a smaller one, because in the end, if they don't want to try it, then they won't eat as much as we expect them to do. So in that case, we will waste the food that he cooked. And then we will make something else to them. But of course, that's something that we can consider a little bit more about because it is waste. Yeah. That's so smart.

Unknown Speaker 12:31 Okay, nice. Thank you so much for sharing. We're gonna move on to shopping now, can you describe briefly describe your routine for grocery shopping, like what happens when you get to the store?

Unknown Speaker 12:47 What happens to get to the store? I do? Yeah, depending on how much details you want to come into the store, I have a list. Normally, I go into the shops that I know. So the things that I buy, I know where they are. So you have your routine you. For example, if it's a really simple day here, then you know, you go through the onions, potatoes and the vegetables and then you move down to the milk and so on. And on the way you you buy the things that you have on your list. And sometimes when you walk through the shop, you also see things that you've forgotten to write on your list, but you know, that you need at home or maybe there have a good offer. So you take that as well. So more depending on how what the shop has to offer.

Unknown Speaker 13:39 Yeah. Do you use those three for two offers? Or are you more conscious? If there's like a three for two offer and you only need to buy three or do you?

Unknown Speaker 13:56 If there's three for two you said? Yeah, there's three if it's two then I get the last one for free. I will definitely take three or two. Yeah, yeah.

Again, depending on what it is because it is it is something that I can store at home that won't get old and won't get over dated. Of course I will buy it because if a buyer it is it is something that I use at home so I know if I will not use it now. I will use it until the expiring date. Yeah. So but again, if I bake a lot, so if I need an ingredient that I don't use too often, but there is an offer on it. Then I will not take it I will not use the offer. If I know that I will not use use it for a long time. Sometime. It's also expensive to be cheap.

Unknown Speaker 14:48 Yeah, yeah, I totally agree. Yeah, I recognise myself in that behaviour. Have you ever ordered groceries online?

Unknown Speaker 15:00 No, I have never done that I don't feel comfortable with that I don't know I'm more when it comes to that I'm more like foetal and grab person. So I like to go and pick my own groceries and and be sure that what I get is the good for the money and the good quality as well. So I have had a lot of offers of the buying online as well and get the delivery to the door. But I'm not that type of person, I'm more like go and grab my stuff myself. So I know that I will get what I want. And also to, I like to be in the shop and use that time. Also, in that way that I am a busy mom, I have a full time job. And I'm busy at home as well. So that's like my escaping no moment when I am in the shopping mall for myself and have like that half an hour or one hour of shopping. So I will rather prefer that than sitting in front of the computer or app and order what I have to order.

Unknown Speaker 16:10 Oh, that's so nice here. I'm not obviously not mom, but it's

Unknown Speaker 16:19 the girls. And it's amazing that that can be a magic moment. But believe me it can. Yeah.

Unknown Speaker 16:28 Do you think shopping groceries online will have a positive or negative impact on food waste.

Unknown Speaker 16:40 I think it will have a positive because then you only order what you have to order. And now I don't know how it works. If some if there is some pop ups with your offers are what it is. But I think you do more impulsive shopping when you are on. Or when you are in the shop, definitely because you see them and they're very strategical plan with everything that they place inside the shop. So maybe you see it once and you don't want to buy it. But when you go in the middle of the shop, you see it again. And then when you did sell you'd see it again. Then you get then you get what you say. Sometimes that to buy it. So definitely I think it can be a positive impulse to put ways to buy online. Because then you follow your list.

Unknown Speaker 17:33 Yeah. I see. What do you think of services like HelloFresh, the mod caster in Swedish? Have you tried those or someone in your close proximity? Try those? Or what do you think?

Unknown Speaker 17:51 I know some of my friends have tried them. And they have actually been very positive and very happy for them. I haven't tried myself. I'm a very picky person when it comes to food. So I haven't tried them yet. But I have heard that they have some very good vegetarian, vegetarian. What do you say recipes and so on. And the feedback from my friends who have used them there that was actually quite positive. But I haven't used it myself yet.

Unknown Speaker 18:20 Why do you think they were positive?
Unknown Speaker 18:23 I think it's also because we're living in an environment where everybody's very busy and the lack of time everywhere. And for them, it was
very easy to get the delivery door and actually get a recipe that they just have to follow. So they actually skip all the thinking process of what to cook Do we have it? Do we need to go to shopping and so on. So actually just get everything served in a box and you just have to follow the recipe so it's quite easy and time saving as well.

Unknown Speaker 18:53 Yeah, I see. So we're gonna move on. When you get home from the grocery store, and you're going to store the food do you have like a way of storing like a systematic way you store the groceries in the fridge for example.

Unknown Speaker 19:12 Yes, of course like the date of expiring have to be everything was explained for us have to come first and the rest have to like be in the back. And then what's more also the vegetables and so on very aware that the incoming grocery goes in the back and the ones that are in the fridge it comes in the front so if I'm at home is so if somebody somebody else uses it so they know that what they have to use first before taking any anything also due to expiring date and so we don't waste food so we use the things that we have in the fridge first.

Unknown Speaker 19:55 Yeah, that's that's nice. And when you when you cook Should give an example of something you could. Usually.

Unknown Speaker 20:09 We usually Yeah, have kids pasta and cool sauce. What do you say? Yeah. You know what I mean? Yeah, yeah. That's a Ragnar Jaysh. Quick and easy and fast. And everybody likes it.

Unknown Speaker 20:26 Yeah. And when you're cooking, do you follow a recipe? Or are you more improvised?

Unknown Speaker 20:36 improvised? Improvise, improvise, when you have done it? So many times? You don't need a recipe than this in the back of your head, and you just go on like a machine?

Unknown Speaker 20:45 Yeah. And does that differ from weekdays to weekends?
Unknown Speaker 20:52 If I improvise, or if I, Hmm, no, I think we I'm more like following the same recipe not improvising so much, then it could be more like side dishes and so on. Where we take something else to try something else, but the main recipe will be followed. on the safe side, yeah.

Unknown Speaker 21:17 And when you're cooking for dinner duty you regard like plate sizes, how many will be eating, how much they eating?

Unknown Speaker 21:31 I have, like, I know, in my head, how much I have to cook. Now me and my husband, both of us work. So if there's any leftovers, we take it to work. So I won't be any problem in that way. And again, I like to cook Shall we have for the next day as well?

Unknown Speaker 21:51 That's nice. And this is going to be a tricky question to understand. We've tried to formulate it as best as possible. But would you produce more or less food waste per plate? If your children were not eating that day?

Unknown Speaker 22:16 I don't think it will be more. Because again, you can eat it the next day as well. Or you can save it as well. If they don't eat that day. They're open to eat it the next day. So I don't think it would be wasted if they don't eat it the exact day that it's cooked. Yeah. If that answer your question.

Unknown Speaker 22:36 Yeah, it's nice. Being a little fussy formulated, we get so much information from that question during this interview. Do you think eating out affects your food waste at home?

Unknown Speaker 22:51 No, because normally when we eat out it is because we don't want to cook it is because we haven't cooked anything. And that's like a second
option for us more if we want to go out and eat. So it's not because something is cooked. And then we say no, let's just leave that and then we go out we are very aware of that. I'm my me and my husband both of us are very aware of we also tell our children that they should be grateful to have a warm meal and to have food at home. We refer to children who doesn't have that. So also to express in front of them that they should value food and that way so much, then we only use the restaurant solutions when we don't cook.

Unknown Speaker 23:37 Okay, okay. And it's almost the last question now. But how do you assess the ability of groceries and food?

Unknown Speaker 23:51 How I assess said once again,
Unknown Speaker 23:54 at the ability if it's good to eat or consume
Unknown Speaker 24:04 about fruit or
Unknown Speaker 24:05 groceries and food in general? Are they like, smell it? looked at it? Yes.

Unknown Speaker 24:14 Yeah, exactly everything you said there best before J smell it, touch it, see how it is? And feel how it is to see if there is any if it's rotten or not, and if it's eatable or not. Normally.

Unknown Speaker 24:35 I have a follow up question but if you would have to put that in order. Would you check the best before date or put greater value in best before date or would you rather see it smell it and then go to the best before date?

Unknown Speaker 24:52 I think it depends on which grocery you're talking about. If you for example said milk and then I will definitely go about the best before date. If Talk about eggs, then I will not go about the best before date. So that it's very different depending on what you're talking about. For example, if it's Brad, if it's expired, I think he could go one day more, if it looks good, if it's everything is good about it, it was there. If it's not rotten or anything else, of course, it could go further. And the same if it's, if it's vegetables, or anything else like that, you can definitely use it if it's cheese and so on. If it's eatable, you can eat it, or I do have something with milk and you're guarded and stuff like that. If it's expired, then it expired, then you should go out. Okay, thank you.

Unknown Speaker 25:48 Yeah, really interesting, especially since it took up two dairy examples, their products. Okay, so we have the final question here. What do you think, is your biggest foodways factor? Why do you throw away some food?

Unknown Speaker 26:14 Why do I think mostly it is misjudging how much the kids will eat if we have played it if or if they have played it themselves. And I think it's mostly when they played it themselves. They think they're able to eat more than they actually do. And that consumes to food waste.

Unknown Speaker 26:34 Yeah. And how would you go about changing that.
Unknown Speaker 26:42 They're getting bigger now. And they're getting more aware of how much they should play for themselves. And we do explain them as well, that what you played, you should eat it up, you should finish your plate. The other way is that sometimes I even take the leftovers as well, if I know that they have played it's something for themselves that they will not eat up, I pledge less for myself or my husband do because we know it will be left over. So we actually take their leftovers and eat them and put less to ourselves. Otherwise, we try to keep it and see if they will eat it like in a half an hour an hour after they have played something like that can't be that they will be hungry again. If it's something that we can warm again, we will do it
and then say offer them the same again. So we don't do the food wasting.
Unknown Speaker 27:40 Yeah. And in general, not just your family. What do you think is the biggest food waste household food waste factor?

Unknown Speaker 27:54 are consuming buying too much? Or maybe double buying? I could be I buy something or the one part buys something the other part buy it as well. I think that could be a reason. Yeah. Otherwise, it is mostly misjudging what you think we'll be eating?

Unknown Speaker 28:18 Yeah. Awesome. That's all of my questions. Maria, do you have any follow up? Questions?

Unknown Speaker 28:28 Actually, no, I think this has been very informative. And we got really good stuff. I don't think I have any more questions. I just had that one. And I asked it. So we are good. Okay.

Unknown Speaker 28:42 And we have to do you have any questions now after the interview for us that we might? So no, not

Unknown Speaker 28:51 yet. Now, maybe something will come up our contract. You know, like, you know,

Unknown Speaker 28:57 there that and thank you so much for participating. It means a lot to us. Thank you.

Unknown Speaker 29:05 Thank you. Welcome. I hope I really could help with my answers.

Unknown Speaker 29:11 Yes, they will be very much helpful to get some really nice insights.

Unknown Speaker 29:19 I'm happy to hear that. Perfect.
Unknown Speaker 29:21 Thank you.
Unknown Speaker 29:22 You all come and have a nice day. You
Unknown Speaker 29:27 catch you later. Bye

### 7.5.9 Interviewee 9

Unknown Speaker 0:00 tendency to forget that and we are recording. So do you have any questions for us before we begin?

Unknown Speaker 0:11 No, just start.
Unknown Speaker 0:13 Start it will be semi structured so more like a conversation. So, could you please tell us a little bit about yourself? Who are you? What do you do for a living? Where do you live and so forth?

Unknown Speaker 0:32 Okay, my name is Karen and I live in donburi. Alone. Loans.

Unknown Speaker 0:38 Okay, so no worries.
Unknown Speaker 0:43 Oh my God, no MLA, speak down it but everything. And I work in Denmark DSB on the train from the train manager. And I have a husband and two children 17 and 12. Oh,

Unknown Speaker 1:03 nice. Nice. And you're all living together? And yes, we do. Nice nice. So this is about food management. So in your family who is responsible for grocery shopping?

Unknown Speaker 1:22 Often me maybe on the weekends when I'm working but normally it's me.

Unknown Speaker 1:30 Yeah. Where do you grocery shop?
Unknown Speaker 1:35 When I need a lot of food. May I mostly go to city grace. But when I only need milk or something? I bought a Terran Dalby attention

Unknown Speaker 1:50 and did they do like big monthly shoppings? Or is it more spontaneous? Or both? Perhaps?

Unknown Speaker 2:00 Yeah, the boss. Maybe once a month? I do a lot shopping but I shop almost every day it's so bad.

Unknown Speaker 2:13 But it's really good for us that you do actually so when you do that everyday shopping with the usually get

Unknown Speaker 2:28 it's usually only mail maybe bread sometimes but no, the most important milk and sometimes but oh, we don't have any butter left? Oh my God I need shop.

Unknown Speaker 2:46 Yeah, I know the feeling I know the feeling. So a question not regarding food. How digitally comfortable would you say you are? Meanwhile using a apps in your everyday life or computers, etc.

Unknown Speaker 3:07 I'm not a technical very bad, but I use apps of course in my child. Also private but never Shopping. Shopping clothing. I can use online shopping in apps but not food. Oh, okay. But should food on online? Never do it?

Unknown Speaker 3:36 No. Yeah, I see that was a question that we were going to ask a lot later. So so nice. So what comes to mind when you hear the word food waste

Unknown Speaker 3:55 I know food waste is but we don't in my family. I do a lot of food but we're not we don't throw it away. Maybe when maybe some vegetables. When they are bad. We throw it away but never food.

Unknown Speaker 4:22 That's that's really good. And yeah. How important is it for you to avoid food waste in your household?

Unknown Speaker 4:33 It is important I think you can also you can always make something else. When you do if you make a big dinner and they don't eat it at you. You can put it in freezer and then you can do something else with the food It's important.

Unknown Speaker 5:03 Yeah, that's, that's nice. That's nice. We're gonna go into that a little bit more later on in the interview. I have a final question here on the initial part of the interview, you don't have to answer this. It's not really social, socially acceptable in Scandinavia, but on a scale from one to five, where one is not so much and five is really comfortable. How economically comfortable are you in your family right now?

Unknown Speaker 5:46 We it's we have it. It's good.
Unknown Speaker 5:50 It's good. Yes, it is. Nice. So four, five, something like
Unknown Speaker 5:56 that. Yeah. For
Unknown Speaker 6:00 nice, thank you. Thank you, for
Unknown Speaker 6:05 millionaires.
Unknown Speaker 6:07 Oh, no, no, no, but it's nice to put that into the analyzation of the results to see to find something for the thesis.

Unknown Speaker 6:18 Yeah. Okay.
Unknown Speaker 6:21 So now we're going into the the main part about food management, and we're going to start with planning. So, could you describe how do you plan for grocery shopping?

Unknown Speaker 6:38 I'm not so good in planning. But when I'm about to take my car and go, where to shop, I love look in a kitchen everywhere and make a list of
everything you need. That lists could be very long. Go to the shop and start shopping. But always I have a lot of other things. In my bags when I'm going home again, that was not on the list. Yeah, I prefer not to bring my children because when the children are with me, they always they want a lot of things I don't have on my list.

Unknown Speaker 7:32 I can so you check your fridge and kitchen and everything before you go shopping do you have in your family like combined grocery list? Or do you have your own list? Or do you share it with your husband in some way?

Unknown Speaker 7:53 Now we have a list on the free on the fridge. So every everyone can write down if they need something.

Unknown Speaker 8:02 Yeah, it's a analog list or is it digital?
Unknown Speaker 8:06 No, it's It's normally a paper and a pen. So we don't write it down.

Unknown Speaker 8:14 I see I see. Do you do in your family have a meal plan? Like what you're going to eat throughout the week?

Unknown Speaker 8:22 No, we don't. My husband he is excellent in doing dinners. He just found out today we're gonna do this and just do it. You find a lot of things in the in the fridge. He just make things I need to go into online and find something for the food or a cookbook or something but we don't have we don't have that list. Sometimes. We think our Friday's good with tacos. Okay, then we do it on Friday and then all the other days we don't know we just did. Bad in planning.

Unknown Speaker 9:16 Yeah. Obviously three and US me is very important. Do you have the food budget?

Unknown Speaker 9:26 No, we don't. Maybe we should but we actually don't.
Unknown Speaker 9:34 Why do you think you should have a food budget
Unknown Speaker 9:38 then it would be maybe a little cheaper but when we don't have a budget it may be sometimes expensive with a as shoppers spontaneous, have some so that wouldn't be expensive.

Unknown Speaker 9:58 So finally question In the planning phase of this interview, in general, do you think planning or lack of planning affects food waste?

Unknown Speaker 10:14 I think planning is much better, actually.
Unknown Speaker 10:20 So if you plan well, you have less food waste.
Unknown Speaker 10:25 Yeah, exactly. I think so.
Unknown Speaker 10:29 Do you think that planning affects the food waste in your home? In some way?

Unknown Speaker 10:37 We don't have so much food waste. Actually, we don't. So I don't know. But we don't throw away so much food. But phase three is I don't have the space enough in my freezer. I put it there.

Unknown Speaker 10:56 Yeah, that's really good for the environment. A little bit worse for our thesis, but it's awesome that you are very good with food waste. Can you describe? I'm sorry, we're going into the shopping face. So can you describe your shopping routine? When you're at the grocery store? Very briefly, just short. What happens when you enter the grocery store?

Unknown Speaker 11:24 I go in, I check my scanner. And then I go find vegetables first, and then then I don't have planets, depending on what I need.

Unknown Speaker 11:41 Yeah, you're the first and mentioning scanner. That's Unknown Speaker 11:45 yeah.

Unknown Speaker 11:45 Do you think using the scanner affects the way you buy groceries in another way.

Unknown Speaker 11:56 The scanner is very good because I see the price. And I can compare prices with with the two different names some mail, for instance, I can compare prices, and then it makes it much faster. If I have a scanner, I don't go to be waiting in the line. I scan my things and then not pay and hopefully the grocery shop don't want to check me one next door

Unknown Speaker 12:34 how important would you say it is for you in your life and situation to avoid the line and be festering grocery store?

Unknown Speaker 12:48 I think it's I can be in a line. It's okay. But I prefer not to be in line I want to I want to go home with my food. I don't want to be in line waiting. A plus standing close to me. I don't like that. I have enough in my job.

Unknown Speaker 13:11 You know this, like three for two offers that usually are in the store? Yeah. What do you think about those?

Unknown Speaker 13:22 Sometimes it's good. But sometimes if I only need one thing, I don't see a reason why I would take three of them. Because it's a little cheaper. I just buy one. Yeah. But sometimes it's a good offer. Depending maybe on what what it is.

Unknown Speaker 13:50 Yeah. Interesting. You mentioned it briefly, but I just want to clarify Have you ever ordered groceries online?

Unknown Speaker 14:00 No, never.
Unknown Speaker 14:02 And why is why is that?
Unknown Speaker 14:05 I don't know actually. Some people that do it often. Some of my my children's friends. They are buying food online, but I like to buy food. I like to go to a grocery shop. I do it myself.

Unknown Speaker 14:27 Yeah. And do you think shopping groceries online? Have a positive or negative impact on food being wasted?

Unknown Speaker 14:43 Oh no, it's like when you buy it on online. It's like a very good planning. If you buy things online. You also have a list you don't buy it On, when you're in shop, you find you have a list, and you're buying it. But then you also find a lot of other things you don't need and you buy it. But when you buy things online, you don't do that you only buy what you actually need, then then you don't waste food. So I think it's good. Yeah, interesting. Maybe I never tried it. But I think so.

Unknown Speaker 15:29 The consensus from all our interviews is that it is good for preventing food waste. What do you think about services like HelloFresh? In Swedish Mart Kassar, for example? Have you made any of those or what do you think about them?

Unknown Speaker 15:49 Another try that either I'm a little curious but yeah, I think I think maybe it's it's good. Never tried it, either. No, we we always done your own food. How we do it, but maybe it's a good way of buying food and yeah, I don't know.

Unknown Speaker 16:18 I mean, either. Actually, I have never tried a math class in my life. But I have friends who have tried it.

Unknown Speaker 16:26 Yeah. I've seen this. pink car fedora. I seen it everywhere. Also my little village so I think many people are using it, but I don't really

Unknown Speaker 16:41 I think it's more restaurants delivery. Okay. So, anyways, let's leave the grocery store and come back home. How do you store the groceries that you have bought?

Unknown Speaker 17:02 You mean how i What do you pick them
Unknown Speaker 17:06 up from the grocery bag and put them in the fridge? Do you have like a sorting system? Milk goes on this shelf?

Unknown Speaker 17:21 Yes. I always put the things that should be in a freezer, I put in the freezer first. It's important. If I buy a lot of meat, I split it in smaller parts and put it in the freezer. And then I take a look called things the fridge them you know? Yes. I put it in on the places.

Unknown Speaker 17:59 Yeah. And when you put it on the places do you do sorted by okay milk goes here or do you have like sorted in another way? Like best before dates for example?

Unknown Speaker 18:15 No, when I put the milk in the fridge, I put on the top of the fridge but I put them upside down so I can see the date. When I opened the fridge, I could see it the date immediately. And then I always seals the one which have the oldest date if there is if by understanding

Unknown Speaker 18:49 you did so cooking What do you usually cook on a weekday

Unknown Speaker 19:00 can be in many different things. Today it will be down Skiff just stay over but it can be meatballs it can be spaghetti bolognaise it could be many different things and sometimes they only do Swedish food sharkfest limpa it can be many different things in in the weekends. tacos and meat and we do a lot of different things.

Unknown Speaker 19:49 In and when you cook Do you usually follow a recipe or is it improvise? Or do you go by memory

Unknown Speaker 19:58 sometimes So I have a cookie cookie in bulk. But normally, mostly I do it by myself in my head.

Unknown Speaker 20:12 Does it differ between weekdays and weekends?
Unknown Speaker 20:20 No, depending on what I'm doing, I'm not. I have many things. So I can do just by fancy. I just find out and I do it. But it's depending if, if I want to do a special thing, I have a cooking book, and I read a little bit, and then I do it from my head anyway. Yeah. Yeah. You know, I used to cook in bulk. I also use my head in the same way, sometimes.

Unknown Speaker 20:54 And when you're cooking, dude, do you plan the portions and the amount of how much you cook in any way, like how many people are eating or the plate size? Or?

Unknown Speaker 21:12 Yes, I'm planning to wear for my family. But I maybe do a dinner for six person so everyone can take more if they like, so they are fun.

Unknown Speaker 21:27 And so now we're going into a few questions about eating. And this question might be a little bit weird, so bear with me. But would you produce more or less food waste per plate? If it was only you and your husband eating the day and not the children?

Unknown Speaker 21:56 No, I don't think so. When when it's only me and my husband. We do a dinner for two and we don't don't waste any food. We don't throw it away. No, I do adore them. We do a dinner for two. But when the children are with us, mostly they are they don't always it everything. Depending Yeah.

Unknown Speaker 22:32 I have a follow up question. Yes. So when you say that the children don't eat everything. So that means that what is on the plate? They don't
always manage to finish everything on the plate. Yeah, exactly. And what do you do with the leftovers then?

Unknown Speaker 22:49 That thing when they have already touched it and and that we throw it away? But normally they're so they are not so much on the plate left? Maybe a bit of cucumber or maybe a pepper. You know, something like that salad. They sometimes allergic allergic by salads. They leave it on the plate, you know? That we cannot say we have to throw it away? Normally, we don't. Yeah,

Unknown Speaker 23:35 they're my boys do the same. They pick some things. Like I don't need this. I don't need this. Like there are small things that they don't want to eat. So it's like some things left on the plate. Always. Yeah. I just had one more question. You were saying that you always try to make more you are for people in the family and you'll make for six. And in case somebody wants an extra portion and if you want an extra portion, what do you do with the leftovers then?

Unknown Speaker 24:04 Then I put it in face. Okay. Yeah. Dinner, maybe for lunch the day after?

Unknown Speaker 24:14 That's good. Yeah. Nice.
Unknown Speaker 24:17 Yeah. Okay. That was my question. Yes, please.
Unknown Speaker 24:22 Yes. So do you think eating out at the restaurant affects your food waste at home?

Unknown Speaker 24:34 Oh, no, I don't think so. No. Okay. We don't waste so much food at home ever. And I don't see why. It should be a difference if we are eating out.

Unknown Speaker 24:54 No, no, no, that's, of course and
Unknown Speaker 24:59 maybe I misunderstand you, but
Unknown Speaker 25:01 no, no, no, no, no, no. I mean, sometimes our questions are tricky by design in order to see what you answer, we get so much more out of the interview if the questions are a little bit unclear. Interview design technique. So don't you worry about that. So assessing if something is edible, you can do it by smell, look, touch and best before dates. How would you see? What do you do first to see if something is edible or not?

Unknown Speaker 25:46 I checked the date before. But actually, I don't throw it away. If food has should be if the bread has a green pot, I throw it away. Definitely. Other food I actually I smell it or maybe taste it? I do. Yeah. Because now if I have milk in the fridge, and it's not opened, you can have it for many days after a day before last time before?

Unknown Speaker 26:24 No. Nice. So we have the final section now have the interview. And it's basically as one big question. What do you think is in your family your biggest food waste factor? In other words, why does food being thrown away like the widget? Which vegetables, for example?

Unknown Speaker 26:56 When I, when I'm shopping, I buy always buy a lot of vegetables, we're always having salad for dinner. Sometimes the pepper maybe are in spirit for a long time. So it has green and black parts. And then that's why I throw it away. But sometimes the buy a little too much of it.

Unknown Speaker 27:27 And how can you change that?
Unknown Speaker 27:33 I could maybe buy a little less of it. Maybe we are using it we are using making salad every day. But sometimes. Sometimes I find a cucumber in the fridge that is a little too soft. And I think it's a good

Unknown Speaker 28:00 way. Yeah. And if you were to buy a little less, how would that affect your life?

Unknown Speaker 28:12 It wouldn't be a big change. But they would maybe be better.

Unknown Speaker 28:19 Maybe? I don't know. Just follow up. Interesting. That's, that's all the questions I have. Maria, do you have any other questions?

Unknown Speaker 28:39 No, I think you actually pretty much covered everything. I just had a question about the uncooked part of the food place. Because you say you say that you don't have a lot of food waste. And that is of course very good. But most of that food waste or most of that, that is directed towards cooked part of the equation. Whatever we cook, we can store it in the freezer, or we can have it as leftovers the next day. So we don't throw away that much of the cooked food. But bad which we buy and then some things just get lost in the fridge or the pantry or the freezer. And you were mentioning that sometimes that happens with the

Unknown Speaker 29:24 vegetables. Yes, it does. Yeah.

Unknown Speaker 29:28 So that was actually one of my questions. But somewhere in the discussion you actually managed to answer that anyways. I don't have to ask that again. But other than that, I did not have anything that I wanted to ask.

Unknown Speaker 29:42 So Corrine, do you have any questions for us now after the interview? How do you

Unknown Speaker 29:49 deal with your food?

Unknown Speaker 29:53 Yeah. I actually really, I wouldn't say luck. But I live alone. And I have two minutes to the grocery store. So I don't I used to buy what I need. But of course I am no saint I throw away food when it goes bad Exactly. Like you buy and then it turns old in the fridge and yeah, then it I'm not good food, actually. But it's interesting to study. So yeah. Okay.

### 7.6 Unused Designs

## $\times$

## $\circ$ Min profil

Senaste order

Mina inköpslistor

Handla online

Erbjudanden

Recept \& Inspiration

Kundservice

$\equiv$ KassaNova<br>...> Frukt > Äpple




# Äpple Jonagold ca 240 g 

## 29,90 kr/kg

Jfr-pris 29,90kr/kg

三 KassaNovạ

...> Frukt > Äpple > Skönhetsfläckar

Skönhetsfläckar


## Äpple Jonagold ca 240 g

24,90 kr
Jfr-pris $24,90 \mathrm{kr} / \mathrm{kg}$

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...> Torrvaror > Pasta


Pasta Penne Rigate
Glutenfri 400 g
Barilla
$17,90 \mathrm{kr} / \mathrm{kg}$
Jfr-pris $44,75 \mathrm{kr} / \mathrm{kg}$

Lägg till

Skadad förpackning: 10,90kr

三 KassaNova
..> Torrvaror > Pasta > Skadad förpackning

Skönhetsfläckar


Pasta Penne Rigate
Glutenfri 400g
Barilla 10,90 kr

Jfr-pris 17,90kr/kg


[^0]:    ${ }^{1}$ See clarification in section 3.3.2

