

**Dutch Generation Z University Students Consumption and Purchase Behaviour  
Regarding Plant-Based Milk Alternative**

**Bachelor's Thesis  
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## **Executive Summary**

With the increasing awareness of climate change and negative environmental consequences of animal-based proteins, the demand for plant-based proteins has been increasing all over Europe. The Netherlands, a country revolves around dairy products, such as milk, cheese, and eggs – has become one of Europe’s biggest plant-based protein capital. However, academic, and social research has been lacking as to why this demand has shifted so briskly – both from a marketing and a consumer behaviour perspective, and whether or not the Generation Z cohort in the Netherlands plays an important role in this shift. This leads to the central research question of this research paper, questioning “How does environmental-friendly product of plant-based milk alternatives related to the consumer decision-making and buying process of the Dutch Generation Z consumers?”.

Through academic literature review and in-depth interviews with seven Dutch university students that falls under the pre-determined generational cohort, several conclusions were derived. It was discovered that through the literature review, a consumer’s general interest towards environmental-friendly food products increases as they are more aware of environmental issues – with regards to age, gender, education, and income. Furthermore, when describing a plant-based diet, it is not strictly defined as a diet that completely excludes animal-based protein, rather, it is the action of minimising or avoiding the consumption of it. This was reflected through the empirical research, where most respondents avoid the purchase and consumption of animal-based protein, even though it is not for environmental reasons.

Through both the literature review and the interviews, it was also evident that purchases, especially for plant-based milk alternatives, consumers tend to follow an auto-pilot behaviour, indicating that it is a low-involved decision, where purchase decisions take little time and almost close to no evaluation against other alternatives. Reasons in support of this behaviour mainly revolves around taste preferences, budget concerns, and dietary restrictions. This leads to the fourth hypothesis that was derived from the literature review to be refuted, as it was discovered that younger generations, such as the Generation Z cohort has higher sensitivity towards social and environmental issues when making decisions – which then is proven to not be their initial reasoning.

Therefore, in order to answer the central research question, it is important to understand that although there are no significant differences between age, gender, nor educational level, the greatest influence of the Dutch university students' decision-making process for their consumption of plant-based milk alternative can be narrowed down to factors such as budgetary concerns, dietary restrictions, as well as taste preferences. The latter then implies a strong form of brand loyalty too. It was also discovered that there are different possible issues and approaches a brand and the government face regarding the level of awareness and how to increase that level regarding the knowledge about how environmentally friendly these products are.

Finally, the end of the paper suggested that for managers, it is important to develop a certain marketing strategy to apprehend the issues relating to raising awareness of the extent of how these products are sustainable and good for the environment. These suggestions were derived from the opinions and perspectives of all interviewees, with respect to how it will increase the consumption of plant-based milk alternatives for both the current generation and past ones.

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## **Chapter 1: Introduction**

### ***1.1 Topic background***

Typically considered the country of meat, milk, and cheese, the Netherlands has been labelled the leading European country in terms of vegan food (Enjoli, Live Kindly). The Netherlands has achieved the status of becoming the country with the highest consumption of meat substitutes in Europe, consuming an average of 15 million kilograms of meat substitutes per year (Séveno, 2021). Although Germany is the largest meat substitute market in Europe, the Netherlands comes first when comparing relative consumption to population size. Additionally, ProVeg, an international food awareness organisation conducted research that revealed that Dutch citizens spent almost 62 million euros on plant-based milk alternatives (PBMA) each year (Séveno, 2021). But what is a plant-based milk alternative anyway? plant-based milk alternative is processed in a way that plant materials are broken down and disintegrated and diluted in water, which will later result in a similar consistency and appearance to cow milk (Sethi, Tyagi & Anurag, 2016). The plant materials are divided into three categories, namely cereals, pseudo-cereals, legumes, and nuts.

The sales of milk alternatives in the Netherlands have increased by 50 per cent since 2019, reaching up to 291 million euros (Séveno, 2021). Although this might seem like a big number, according to a Wageningen University researcher Stacy Pyett, plant-based milk still only accounts for 1-2% of the (alternative) milk market (Dutch News, 2020). With that in mind, the plant-based milk market in the Netherlands has been dominated by almond milk, making up to 20 million Euros in sales, almost one-third of the entire market of plant-based milk, followed by soy and oat milk, which has been growing rapidly in terms of sales, taking up 14 million Euros in sales out of the 62 million Euros market (Smart Protein Project, 2021).

Research conducted by Kieskompas and VU University Amsterdam, commissioned by ProVeg Netherlands, concluded that out of 8,575 Dutch citizens sampled in the research, 72 per cent of the respondents believe that fewer animals should be consumed in the future (Buxton, 2022). Although 42 per cent believes that animals should have the right to existence and should not be consumed as food, 26 per cent has a scepticism mindset instead, where they believe that animals are inferior to human beings and that it is normal for one to consume them (Buxton, 2022). It is also evident that different supermarket chains in the Netherlands, such as Albert Heijn or Jumbo, which increased their vegan protein products since 2017. Since then, the

number of vegan proteins sold in large Dutch supermarket chains has grown by 51 per cent (Enjoli, Live Kindly). Although there is a clear lack of options in discounter stores, especially for vegan milk and cheese varieties, the growth rates of soy and alternative meat have been rapidly increasing in the past years (Smart Protein Project, 2021).

It remains the question of which of the 17 million Dutch citizens have followed this shift in flexitarian or a completely plant-based diet as there is a limited number of data and information regarding the specific demographics of plant-based milk consumers. Thus, with that information, this research will target Dutch university students currently residing in the Netherlands, which are also a part of the Generation Z cohort, i.e., born between 1995 and 2003; this group of individuals can also be called a generational cohort, where individuals are born within a specific time and place range, who undergoes similar life-changing events around the same age (Kamendiou, Mamalis, Pavlidis & Bara, 2018). University students are assumed to live on their own and away from their parents, for the most part, and that entails making their own dietary and consumption decisions individually. Beretzky & Jám bor (2018) considered this group of Generation Z individuals as the ‘juveniles’ compared to other generations, where they have or are currently at the beginning of their academic studies; grew up in an intensively evolving and changing environment with a strong influence of information and consumerism society.

This report will investigate how the behaviour of Dutch university students is influenced by the marketing efforts of brands through the power of online and offline advertising, as well as the students’ complete access to online information regarding the environmental and health consequences of consuming cow milk versus plant-based milk alternatives. It also aims to investigate how the shift of behaviour started versus how it is now, and how their behaviour differs from past generations. The behaviour change will be investigated through their attitude towards environmental issues, the product (packaging) attributes, as well as marketing efforts conducted by plant-based milk brands.

### ***1.2 The academic and social relevance of the research***

The current academic literature has been increasing in research such on veganism and animal-based protein consumption, especially in Western countries, such as a research by Wolf, Malone & McFadden (2020) about the shift of consumption in the United States; the shift of conventional dairy milk to plant-based beverages in Canada by Islam, Shafiee & Vatanparast,

(2021); or one that focuses on a similar Generation Z cohort of university students and their sustainable food consumption by Kamenidou, Mamalis, Pavlidis & Bara (2019). However, there is, unfortunately, a lack of academic research regarding the shift of consumption and behaviour towards plant-based milk in the Netherlands, specifically for Generation Z university students. This research paper then aims to contribute to that gap of research, which will provide insight for scholars to indulge in the shift of Gen Z behaviour in sustainable food and beverage consumption, and for companies to maximise their knowledge regarding the young generation and implement it into their marketing strategy, i.e., packaging attributes. As defined by Banytė, Brazioninė and Gadeikienė (2010), the age of green consumers, i.e., consumers who consider environmental consequences when making a purchase, is lower than that of a traditional consumer. The research will also provide additional insight regarding how companies, brands, and the government attract past generations into switching to consuming plant-based milk alternatives, based on the perspective of a Generation Z consumer.

Furthermore, the social relevance of this research was inspired by an article by Het Parool, a Dutch news page that reported a significant decrease in milk consumption in the Netherlands. The number has declined from 1.133 billion litres of milk in 2012 to 975 million in 2018 (Seidell & Halberstadt, 2019). This information is important for the social relevance of this research, especially for companies in the plant-based food alternative industry, as understanding the behaviour of their current and potential consumers can improve a company's profitability. Furthermore, it is also important to understand the movement of Dutch citizens, especially the younger generation that is undergoing higher education, towards consuming plant-based milk. According to an article by The Guardian, one in every three British citizens has started consuming milk, reaching over 100 million pounds in 2020 sales, and around a quarter of the 2000 individuals that were surveyed saw that plant-based food and beverages are more appealing (Wood, 2021). Additionally, 38 per cent of British individuals under the age of 35 also found plant-based food and beverages appealing (Wood, 2021). This proves further that in major countries in Europe and the United States, a trend of consuming alternative milk has been increasingly present, especially for younger consumers, which means, there is, to an extent, potential in older consumers as well. It has also been indicated by Mäkinen et al. (2015), that 15 per cent of European consumers avoid dairy products for a variety of reasons such as health or lifestyle restrictions.

### ***1.3 Purpose and nature of the research***



The main objective of this research is to investigate which kind of product and packaging attributes, i.e., marketing claims, environmental-friendly logos, price, flavour, and brand Dutch university students find appealing and how that contributes to their purchase decision. Attributes that these students find appealing will provide the highest utility for them, hence giving them more incentive to make a purchase. Although Rokka & Uusitalo (1980) discussed how there are models that conclude how attitude can predict behaviour, i.e., the Theory of Reasoned Action (Ajzen & Fishbein, 1980) and the Theory of Planned Behaviour (Ajzen, 1985), it is also evident that there is a weaker link and correlation between attitude than expected. This research will be based on in-depth interviews, which will reveal respondents' internal and external motivation and beliefs that influence their environmental concern level, which in return will influence their consumption and purchase behaviour.

#### ***1.4 Problem statement and research question***

This research paper aims to investigate how different product and packaging attributes, including but not limited to claims, logos, flavour, brand, etc. influence the consumer decision-making and buying process of Dutch generation Z consumers. Generation Z consumers consist of students currently in higher education and are between 18 to 23 years old. The reason for this will be provided later in the literature review section of the research paper.

Given that, the central research question for this paper is:

“How does environmental-friendly product of plant-based milk alternatives related to the consumer decision-making and buying process of the Dutch Generation Z consumers?”

To support the central research question, there will be several theoretical and empirical sub-questions to investigate theories supporting the research and the condition of the market of consumers that are being investigated.

#### ***1.5 Theoretical Sub-Questions***

Question 1: What entails environmental-friendly food and diet?

Question 2: What entails plant-based food and drinks and diet?

Question 3: What entails the consumer decision-making and buying process regarding food?

Question 4: What entails Generation Z?

#### ***1.6 Empirical Sub-Questions***

Question 1: What entails environmental-friendly products in the Netherlands?

Question 2: What entails a plant-based milk alternative in the Netherlands?

Question 3: What entails the consumer decision-making and buying process of food Dutch consumers?

Question 4: What entails the Dutch Generation Z?

### ***1.7 Structure of the paper***

This research paper will be divided into four chapters; the first chapter will include the introduction to the topic, academic relevance, social relevance, the problem statement, as well as the central, theoretical, and empirical questions. The second chapter, namely the literature review, will discuss multiple academic papers concerning the theoretical sub-questions mentioned in Chapter 1.5. This section will also list four propositions resulting from the academic literature review. Following that will be the third chapter that will discuss the research design and methodology, data collection, and details of how the primary data will be obtained and processed. In the fourth chapter, this paper will list all the results of the field research, including discussions and analysis of the interview concerning the empirical questions stated in Chapter 1.6. The last chapter of this research will be the conclusion of the research results and a complete summary, including a discussion of how the research result relates to the result presented in the academic literature review. Chapter 5 will also include a set of limitations and recommendations for the research, as well as recommendations to the general population and towards businesses and their practices.

## Chapter 2: Literature Review

### *2.1 Environmental-friendly food and its consumption*

For the past several decades, government bodies globally have been showing a growing interest in developing policy agendas regarding climate change and global warming through the reduction of greenhouse gas (GHG) emissions (Nam, 2020), and other negative environmental effects mainly related to the production of milk, such as soil degradation, air and water pollution, and loss of biodiversity (Haas, Schenpps, Pichler, & Meixner, 2019). Every economic activity in this world contributes – to an extent – towards these GHG emissions. Almost 14 per cent of the global GHG emissions are accounted for by agricultural practices, where specifically in the European Union (EU) area, which accounts for 9.2 per cent of total GHG emissions (United Nations Framework Convention on Climate Change). The use of pesticides, fertilizers, and fuel consumption in farming practices are some of the factors that contribute to this particular level of emissions. Hence, different government bodies across the European Union have been attempting to influence consumers' behaviour in consuming food that is not derived from these particular practices.

In general, eco-friendly products must not pollute the Earth nor deplete any natural resources (Shamdasani, Chon-Lin & Richmond, 1993). But then what is considered environmental-friendly food? Research conducted by Lombardi, Berni and Rocchi (2016) defined environmental-friendly food, through their choice-based experiment, that it is considered to be an eco-friendly product if these products claim on pack, that they produce significantly less or zero CO<sub>2</sub> emissions and whether or not it is organic. Additionally, the classification of eco-friendly food also relates to factors such as transportation, production area, water and land use, pesticides, carbon emissions, and soil use (Lombardi et al., 2016). When all of these factors are combined, relative comparisons, normally illustrated on environmental information labels, can be seen between different food and beverage products. Hence, companies must adhere to the principle of sustainable development when conducting their business practices, in order to achieve a high-quality product and/or service that they provide (Ruževičus & Serafinas, 2007).

In order for governmental bodies to enhance the effectiveness of reducing emissions through agricultural practices such as farming, there has been a significant increase of research in academia as well as on a corporate level on how to stimulate the consumption of environmental-friendly products. Unfortunately, the research had concluded that there has been

a significant attitude-behaviour gap in consumers when it comes to environmental-friendly products (Prothero, Dobscha, Freund, Kilbourne, Luchs, Ozanne, & Thøgersen, 2011). The attitude-behaviour gap can be seen when these consumers express a positive attitude towards sustainability, however, do not act sustainably as per their values. Although this gap remains, research by Amyx, Jong, Lin, Chakraborty, & Wiener (1994) shows that as interest in sustainable consumption and lifestyle increases, a consumer's eco-friendly behaviour and purchase intention increase. Additionally, multiple studies have shown that consumers with a positive attitude, such as consuming healthy food from fair trade and that are kind to the environment and environment, these individuals have a higher willingness-to-pay towards green products (Teng, Ow, Sandhu, & Kassim, 2018). This is present for numerous reasons, such as prioritising the environment when making such purchases (Laroche, Bergeron, Tomiuk, & Barbaro-Forleo, 2002), or because they consider themselves 'green consumers', which are individuals who actively engage in pro-environmental behaviours (Barbarossa & Pellsmacker, 2016).

When an individual actively purchases eco-friendly products, and proactively finds solutions to environmental-related problems, those said consumers can be called green consumers (Banyte, Brazioniene, & Gadeikiene, 2010). There are some general classifications in terms of demographics, such as that green consumers are, on average, younger than normal consumers; that there is a higher chance that a green consumer is female, since females are more sensitive and caring towards the environment (Ottmann & Reilly, 1998), even though men possess a deeper knowledge about the environment and its issues. Additionally, it is also concluded through research that individuals with a higher level of education, as well as a higher level of (disposable) income, are more sensitive and educated regarding environmental issues, hence making them a highly plausible candidate for what a green consumer is. That being said, Banyte, Brazioniene, & Gadeikiene (2010) concluded that the profile of a green consumer is a middle-aged female, with a disposable income higher than average and well-educated.

**Proposition 1:** A consumer's motivation to consume environmental-friendly food products increases as they are more aware of environmental issues, due to factors such as age, gender, education, and income.

## ***2.2 Plant-based products and its consumption***

A plant-based diet has developed multiple definitions over the years over different academic research. Ostfeld (2017) defined a plant-based diet as ‘minimally processed fruits, vegetables, ..., and excludes all animal products, including red meat, poultry, fish, eggs, and dairy products.’. Aschemann-Witzel, Gantriis, Fraga & Perez-Cueto (2020) also discussed how there are other definitions of a plant-based diet that do *not* exclude the consumption of animal-based proteins. Hence, the definition of a plant-based diet by Aschemann-Witzel et al. (2020) is that it is a current consumer trend of avoiding, minimising, or reducing the consumption of animal-based protein products. The Aschemann-Witzel et al. (2020) paper also cited that there is a clear increasing demand for protein-rich foods in emerging and developing countries, where it is particularly derived from meat and dairy products in the middle-class population group (Acosta-Navarro et al., 2010; Godfray et al., 2010), wherein some parts of the world, there is still strong insufficiency of protein intake in some citizen groups.

Additionally, the plant-based food that will be specifically considered in this paper is plant-based milk alternatives. As defined earlier in Chapter 1, a plant-based milk alternative is a product that mimics the characteristics of cow milk, which is processed through extracting and breaking down components of plant material. The most important ingredients used to formulate and process plant-based milk alternative are plant sources, i.e., legumes, water, emulsifiers, and additives (Reyes-Jurado, Soto-Reyes, Dávila-Rodríguez, Lorenzo-Leal, Jiménez-Munguía, Mani-López & López-Malo, 2021). After the plant-based milk alternatives are processed, they are packaged to be distributed and sold normally using carton packaging such as Tetra Pak® (Reyes-Jurado et al., 2021). Major examples of cereal-based milk include oat and rice milk; nut-based milk includes almond and hazelnut milk, and legume-based milk includes soy milk.

In addition to that, soy milk is also considered the most widely consumed plant-based milk alternative (Mäkinen, Wanhalinna, Zannini & Arendt, 2015, Reyes-Jurado et al., 2021). Around 100 years ago, soy milk was produced and initiated in Asia and then distributed to Europe and the United States. Again, the motivation behind the production of soy milk was to serve nutrients to a certain population that has an insufficient milk supply (Reyes-Jurado et al., 2021). In current times, this shift in consumer behaviour is developed due to numerous reasons, however, a growing number of consumers choose to consume plant-based milk alternatives due to health reasons, such as lactose intolerance, cow milk allergy, or due to lifestyle choices such as following the vegetarian or vegan diet (Sethi, Tyagi & Anurag, 2016).

When discussing the extent of how green consumers incorporate eco-friendly food and products into their diet, it is spread over multiple dimensions on the spectrum of how ‘green’ these individuals can be. According to Banyte, Brazioniene, & Gadeikiene (2010), the levels of green consumers can be divided into five, such as loyal green consumers, less devoted consumers, consumers developing toward green (behaviour), conservative consumers unwilling to change, and consumers completely unwilling to change. Green consumers conduct certain behaviours to satisfy their needs, for example, as discussed by Ottmann & Reilly (1998), there is a difference between the behaviour of consumers needing to find information, for control, to contribute to change or to reduce guilt against the negative consequences of the environment, and to express a certain lifestyle standard. When it comes to consuming eco-friendly products and plant-based food alternatives, these green consumers tend to have the need to change and/or reduce environmental pollution, such as through purchasing eco-friendly products and adapting their lifestyle more sustainably, or, when they need to present that they indeed, follow an eco-friendly lifestyle, they would purchase and consume green-like products.

Need	Strategy
For information	Search for information when reading product labels and studying marking
For control	Support for green producers’ trademarks and disregard for other producers
To change/reduce guilt of environment pollution	Buying the products that may be environmentally-friendly (i.e. eco-friendly products)
To express lifestyle	Buying “green versions of a product”

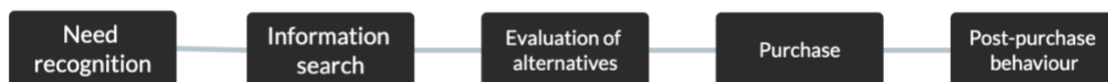
**Table 1.** *Need and strategies of a green consumers based on Ottmann & Reilly (1998) and Wind (2004).*

**Proposition 2:** Consumers does not always exclude animal-based protein when undergoing a plant-based diet, instead, they minimise their animal-based protein consumption, and consume plant-based alternatives instead – depending on their need level.

### **2.3 Consumer decision-making and buying process regarding food**

Consumers are often faced with multiple choices at once, where sometimes this phenomenon is called the ‘*multiple choice society*’. Consumers are constantly facing a trade-off during their purchasing process, such as the trade-off between price versus quality in their purchase of a

product (Bettman, Johnson & Payne, 1991). The consumer behaviour topic in marketing has always been interesting to marketers and policymakers, as it improves their marketing strategy and the development of new regulations, which in return will increase a company's profitability and the move towards a more sustainable society. Consumer behaviour can be defined as the process of what consumers experience when making a purchase, and during this time, multiple factors may influence their decision (Stankevich, 2017). The act of making a purchase can be described by the Five-Stage Model of the Consumer Buying Process as seen in the following **Figure 1**. Askegaard, Bamossy, Hogg, & Solomon (2019), described the decision-making process as the amount of effort that goes into the decision, each time a decision must be made. The decision-making process takes place when we seek to solve a problem or an issue, or to achieve a certain goal (Szmigin & Piacentini, 2015).



**Figure 1.** The five-stage model of the consumer buying process

According to Maslow's hierarchy of needs theory, a famously quoted psychological theory of motivation, it distinguishes the significant difference between an internal and external need for human development, whilst focusing on the importance of intrinsic needs towards a human being. Through this theory, it could be derived that there are two types of need; intrinsic need, which is a form of internal motivation, where one seeks personal need to satisfy themselves. This can be in the form of food, sex, emotions, and so on. Another form of need is extrinsic need, which is when individuals require some type of reward or gratification from the external community or parties (Szmigin & Piacentini, 2015). These two needs will drive an individual's behaviour towards their purchasing process; for example, an individual that decides to stop consuming chocolate because they do not find it tasty anymore or because they want to lose weight is an example of someone with an intrinsic need. Meanwhile, an example of an individual with an extrinsic need can be seen when they want to stop eating chocolate due to having a strong online presence, pushing them to look a certain way due to social standards.

**Proposition 3:** Consumers purchasing a fast-moving consumer good tend to be low involved, hence having a fast decision process when choosing and evaluating different alternatives.

#### ***2.4 Generation Z and their consumption or decision-making behaviour***

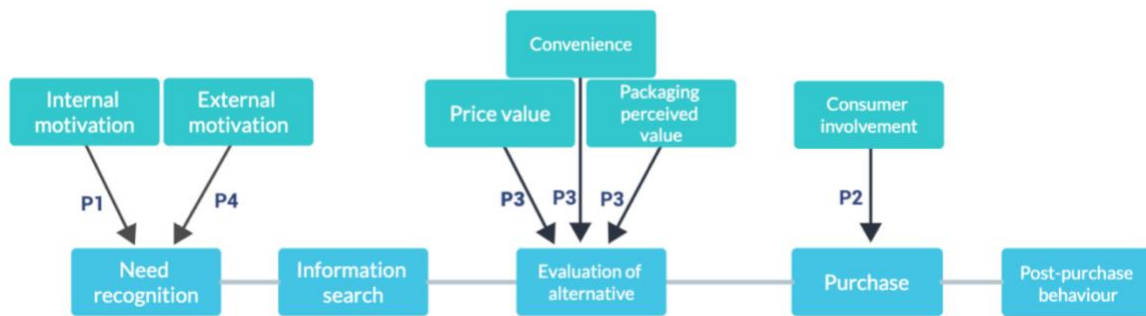
Generation Z, also sometimes called post-millennials, constitutes any person that was born between 1995 and 2010 (Francis & Hoefel, 2018, Su, Tsa, Chen & Lv, 2019). There are numerous ways that different scholars can define Gen-Z, by their age – which right now, the oldest age group of Gen Z will be 27 years old, and the youngest is as young as 12 years old; or by their context, meaning that they are digitally-focused and develops multiple social networks – online or offline; but they can also be a generation that is always open to having dialogues and discussions, and is down-to-earth and realistic (Francis & Hoefel, 2018). Gen Z is also known to be the group that wants to ‘be different’, implying that they want to be an authentic and unique self, while still identifying with one social or peer group (Topic & Mitchell, 2019). Gen Z is known to defend important causes related to identity, human rights, race, ethnicity, as well as identities (Francis & Hoefel, 2018), which leads to Gen Z cohorts being more concerned about eco-friendly consumption and practices (Su et al., 2019), as well as less sensitive to prices when encountering a brand that aligns with their value (Greenstein, 2019). This however was also further discussed by the Topic & Mitchell (2019) paper, generations develop and are diverse, and there is a greater tendency for Gen Z, especially the younger ones, to be more fluid and easily shift their interest and preferences, which could then apply to their shopping preferences and behaviour. Kemnidou, Mamalis, Pavlidis, & Bara (2019) however brought up another point, where their research resulted in showing how university students, aged 18 to 23 in Greece do not have a homogeneous sustainable food consumption behaviour, where one segment tends to be more pre-disposed and open towards adopting that lifestyle, meanwhile the other segment, namely the negatively positioned students are not that interested in that lifestyle. All in all, as summarised also by Saarelainen (2021), there are several prominent drivers, such as quality, knowledge and availability that are highly effective in influencing behavioural intentions of Gen Z, as adapted from Ajzen’s theory of planned behaviour (1991), subjective norm factor model. This means that the quality of the product, regardless of gender, was highly preferred and put before anything else, especially for sustainable products. That being said, the following proposition is formulated.

**Proposition 4:** Gen Z individuals tend to put forward social issues in their decision-making processes, including their sustainable food consumption and lifestyle.

#### ***2.5 Propositions and Conceptual Research Model***



1. **Proposition 1:** A consumer’s motivation to consume environmental-friendly food products increases as they are more aware of environmental issues, due to factors such as age, gender, education, and income.
2. **Proposition 2:** Consumers does not always exclude animal-based protein when undergoing a plant-based diet, instead, they minimise their animal-based protein consumption, and consume plant-based alternatives instead – depending on their need level.
3. **Proposition 3:** Consumers purchasing a fast-moving consumer good tend to be low involved, hence having a fast decision process when choosing and evaluating different alternatives.
4. **Proposition 4:** Gen Z individuals tend to put forward social issues in their decision-making processes, including their sustainable food consumption and lifestyle.



**Figure 2.** *Conceptual research model*

## **Chapter 3: Research Methodology**

### ***3.1 Research design***

This research paper will consider one source of data, namely primary data. Primary data is data that researchers collect for their research or experiment, which can include data obtained from interviews, surveys, or experiments. The aim of the research and the target population must be clearly defined before the data is obtained directly from the source. This will help researchers tailor their collection of data appropriately according to their research. The primary data in this paper will be collected from one source, an exploratory in-depth interview with seven Dutch university students originating from different cities and municipalities across the Netherlands. The reason why this source of primary data was chosen was because it can explore more consumer's motivation – internal or external – of why they consume plant-based milk alternatives and see to what extent which marketing efforts influence their decision and purchasing process. Moreover, in-depth interviews are a form of exploratory research, that helped the researcher to gain complete insight into consumer behaviour, decision and purchasing processes.

When defining quantitative or qualitative methods, it is important to distinguish them using the type of data that researchers use. Quantitative methods are used when the data is numerical, where researchers test their hypothesis and conduct their analysis using statistical methods and econometrics models, whilst qualitative methods are used when the data is not numerical. Depending on the research, any other method of analysing (interview) data that are not using a statistical method will fall under this category. In this research paper, all qualitative data was obtained through conducting in-depth interviews with a sample of seven Dutch university students, ranging from the age of 19 to 23<sup>1</sup>.

### ***3.2 Data collection***

As defined in Chapters 1 and 2 of this research paper, the central question refers to the Dutch students at the higher education level, which implies that any student that will be part of this research falls under Generation Z. This research excluded individuals outside of the Generation Z age bracket, hence anyone born on and before 1994, as well as any Generation Z individuals that are *not* in any higher-level institution (i.e., WO, HBO, and MBO), hence excluding anyone

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<sup>1</sup> Born between January 1999 and December 2003.

born before January 1999[5] and after December 2003. This specific cohort of Gen Z was chosen to eliminate any outlier behaviours from the young end of Gen Z, including the minor group of Gen Z that were born between 2010 and 2015, as well as the early batch of Gen Z, from 1995 to 1998. Although this early batch of Gen Z might still be a student at university undergoing their PhD or master's studies, they are excluded from this research due to eliminating any outlier behaviour and/or views due to being relatively older than the other interviewees.

### ***3.2.1 In-depth interview design***

The in-depth interview method used in this research paper is called the laddering technique, where interviewers asked questions regarding attributes that the interviewees find attractive enough to buy (Haas, Schnepps, Pochler & Meixner, 2019). In this research, unlike the Haas et al. (2019) paper, the laddering technique was adapted and modified slightly to fit the general atmosphere of the interview, where instead of interviewees 'rating' these attributes, they were asked to think about which attribute they seek when making the purchase. The laddering technique entails an unstructured form of an interview, where guiding questions were asked, and the interviewer was able to follow a list of topics to be asked to the interviewees.

The purpose of the interview is to explore the different perspectives and behaviour of different students when purchasing plant-based milk, and their motivation and reasoning behind it, focusing on how the product attributes, including packaging attributes, influence their decision-making process and purchase decision. The interviews also explored the views of Gen Z individuals, as students, regarding the difference between generations in the consumption of plant-based milk alternatives and sustainable lifestyle consumption, as well as the attempt of these brands and the government towards the regulation and response to the shift of consumption from cow milk to plant-based milk alternative. Using snowball sampling, multiple prospective students were approached, and they were asked to recommend friends and/or acquaintances that met the criterion of the research and would be voluntarily willing to be interviewed. Seven Dutch university students at different levels of their studies were interviewed, and all of them come from different cities across the Netherlands. Both male and female individuals were interviewed, and the sample included four females and three males. It was also not known before the interview, whether or not the prospective interviewees are active consumers of plant-based milk. Table A in Appendix A lists the general details of all interviewees.

The interviews were conducted either in-person or through an online FaceTime or Zoom call due to far travel time. On average, the interviews took around 30-minutes long, including introductions and any disclaimers that the researcher had to mention. Due to unforeseen circumstances, such as the interviewee being in a completely different time zone, one interview was conducted by sending the list of questions in an e-mail[6]. The questions sent in the email are written as similarly as possible compared to the questions asked in the conversational interview. It was also structured in a way, where the modified laddering was still applicable. Also using the funnelling technique during the interview, the researcher started off the interviews with broader and general questions to build pretext and context and slowly becomes more specific and deeper into the topic itself, i.e., (packaging) attributes of plant-based milk and environmental-friendly issues and motivation of each consumer. Section A of Appendix A lists all the guiding questions that the interviewer asked during the interview. Rigidity is not highly tolerated as it is important for interviewees to feel like the interview is a ‘conversation’ (Belk, Fisher & Kozinets, 2012), which made the list of questions prepared to act as a guide of the topics that must be covered, and not necessarily an order of questions that must be followed.

### ***3.2.2. In-depth interview structure***

All interviews were interviewed and recorded with the permission of the interviewees and later attached to the thesis. Interviewees must understand why the conversation must be recorded and why it is important to ask for their permission, as there might be information that may emerge during the interview that interviewees might feel uncomfortable having documented or published in an academic paper. Furthermore, the interviews were all conducted in a relaxed environment, such as at a coffee shop, park, or the respective homes of the interviewer and interviewee. This is done to minimise forced answers and biases that interviewees might have.

Before the interview started, a set of disclaimers, as seen in Appendix A, was stated. These disclaimers included thanking the interviewees for their participation, acknowledgement of the recording of the interview, as well as the fact that their answers will be attached in the Appendix of the research. Then, the interview questions were divided into three general sections, namely the general (sustainable) lifestyle consumption questions, which include questions inquiring about their current diet and why they follow it. The reason these questions were asked is to make sure interviewees feel welcomed and comfortable talking about their food and beverage

intake and also to start guiding them through their internal and external motivations regarding their (sustainable) consumption behaviour.

The second section of the question focuses more on their plant-based milk alternative consumption, where the interviewees were asked to describe their choice of milk alternative and why, and also their decision-making and purchasing process when making the purchase. The interviewees were also asked, using the laddering method, regarding milk alternative attributes, such as price, flavour, brand, marketing claims, and logos, and see which one they put the highest importance on, and which one provides them with the highest utility.

Finally, the respondents were also asked about their views about how the current generations, i.e., Gen Z, and the older generations, i.e., Millennials or Baby Boomers, differ in terms of consumption, environmental views, and how these companies can attempt to increase their attraction and sales towards other generations. These also indulge in the difference in behaviour and dietary requirements that the two generations might incur. The interview was then closed by thanking the interviewees and giving them a chance to ask any further questions or modify their answers if need be.

## Chapter 4: Research Outcome and Analysis

### *4.1 In-depth interview result*

As discussed in Chapter 3, the in-depth interview consisted of three sections of questions, starting from the lifestyle and consumption behaviour of interviewees, followed by their specific consumption behaviour towards plant-based milk alternatives and their external and internal motivation towards it, and lastly followed by their attitude towards plant-based milk alternative marketing efforts, such as aesthetic features including fonts, colours, and logos on the packaging. The in-depth interview also investigated how Generation Z views the current level of consumption of plant-based milk alternatives of past generations, and how these brands and the government are responding to the shift of consumption from cow milk to plant-based milk alternatives.

#### *4.1.1. Environmental-friendly food and diet of students in the Netherlands*

When asked about what their food consumption looks like in a week, most respondents replied with a description of the traditional student diet, which consists of pasta, sandwich, and coffee. It might expand to a mix of salad, toast with different toppings, wraps, and a mix of everything else. Through the interview, it was discovered that breakfast is optional for students; most of the interviewees responded by saying that they either eat a small bowl of yoghurt or coffee, such as Interviewee A and E skips it overall, like Interviewee B. For lunch, respondents normally eat light, such as wraps, sandwiches, or maybe a small bowl of pasta. For example, Interviewee B mentioned that he always eats lunch on campus, hence he purchases a small wrap or sandwich – whilst Interviewee D mentioned that for “afternoon and dinner, I usually eat warm (food).”. It is interesting to see that later on, even though most of these foods are typically served with meat, most of the respondents consume it without or with very little amount of it.

Out of the seven interviews that were conducted, five of the interviewees follow some kind of eco-friendly diet and actively consume eco-friendly food and beverage products. Interviewees B, D, E, F, and G all consume less amount of meat, especially red meat, due to a variety of reasons. Interviewees D and G both follow a flexible pescetarian diet, whilst interviewees B, C, E and F actively minimise their plant-based protein consumption. Only Interviewee A actively consumes meat and fish, without minimising any of his consumption. This behaviour resembles what was discussed in Chapter 2, where an eco-friendly diet mustn't always consist

of eco-friendly produced products, however, the action of minimising or reducing the intake of animal-based proteins. Additionally, Interviewee E, for example, switched to plant-based meat, which can be referred to as ‘meatless meat’ – where she defined a big part of her diet as more eco-friendly driven, as she has been consuming less meat and more plant-based alternatives. Interviewee E stated that the reason is not because of any concern regarding the environment, but mainly because of price concerns and taste preferences. Interviewee E mentioned that she can “get a good-buy for plant-based (meat) alternative, which is sometimes a lot cheaper (than normal meat)”. Additionally, Interviewee G also mentioned similar reasoning, which is that she only consumes less meat because she is “not a big meat lover, and meat is also way too expensive for students.”. For Interviewee B, the internal switching cost from animal-based protein to plant-based protein, or any eco-friendlier product was low, he stated that “My sister is pescetarian and gluten-free, ..., my brother’s girlfriend is also vegan. I’ve also been one that does not fuss about food, so changes in my diet the past year have definitely been influenced by my family and housemates.” These three statements highlight the difference in the reasons and extent of these students when adopting an eco-friendlier diet, such as that the behaviour of Interviewee E and G focuses more on taste and price, meanwhile Interviewee B has less of a preference, and follows more of his surroundings. It also indicated that as a student, price is influential, and sometimes, becomes the initial indicator of whether or not they will consume that product.

On the other hand, the two pescatarians that were interviewed also showed a slight difference in their way of adopting the diet. Interviewee D strictly eats only fish, and not chicken or red meat; meanwhile Interviewee G briefly stated that “I try to be a pescetarian, meaning no meat but fish, but due to the eating habits of my boyfriend, I do eat meat now and then.” The two respondents also have different reasons as to why they differ in the extent of how strict they follow the diet. Interviewee D mentioned that “For me, it first was about health, after reading into it I realised that it was healthier for your body to leave out meat. It also just feels better in general, so in terms of climate change and stuff like that.”, where he focuses more on health concerns and environmental topics – meanwhile, Interviewee G stated that it was due to her taste preference towards meat and that consuming it is not within her student budget. Although later she did mention that eating less meat is “better for the environment and red meat is bad for your body”, her initial response was regarding taste preference and price. The two slightly different responses show that regardless of what kind of diet you follow, the eco-friendly aspect, such as the level of environmental concern, that is a consequence of producing animal-

based protein, is not as tangible compared to reasons such as health, taste preferences, or price - which can also affect the extent of how they adopt the diet. There may be external factors from Interviewee D, such as more exposure to information regarding health concerns or having a higher budget to finance the diet by purchasing plant-based meat alternatives. Compared to Interviewee G, she replaces her meat consumption through vegetables, fruits, or sometimes soy – which ultimately costs less than plant-based meat alternatives.

It was evident that among some respondents, a handful of the interviewees would actively buy less meat to cook at home, however, in external circumstances, such as eating at their respective workplaces, or with friends and family, they would not completely opt-out of eating animal-based proteins. For example, Interviewee G mentioned that she sometimes eats meat with her boyfriend, because he does not follow any specific diet. Moreover, Interviewee E relies on her food consumption mostly from work, where she does not have control over what she consumes. “Days where I’m working, I usually get lunch provided at work, which is usually a sandwich for lunch, and dinner it could be anything off the menu, like pasta, hamburger, steak, salad, could be anything.” As previously mentioned, both internal and external influence on the interviewee’s diet was identified, and a common pattern can be seen by the fact that unless the interviewee does not have any health concerns, or a preference, then their avoidance of consuming animal-based proteins comes from their attitude and perspective towards the environment, or price. It was mentioned by Interviewee B, that his awareness of the environmental issues and their concern regarding environmental issues was instigated through social media content and acquaintances. He also mentioned that a reason for the switch of consumption was influenced by the “Leonardo di Caprio documentary, which documented the effects of methane in cows being such a big greenhouse gas emitter, and how that affected the environment.” Likewise, Interviewee D, started the switch because of self-awareness and word-of-mouth.

To conclude, respondents seem to have a diet containing less animal-based protein, which can be a form of an eco-friendly diet, for numerous reasons – however, their motivation connects to contributing negatively to the environment as an outcome of farming animals for their meat or milk, is not a significant motivation. Somehow, it can be analysed that this behaviour is an act of mitigation, where on top of their concerns, it also, to an extent, contributes to a more sustainable lifestyle, hence adopting an ‘eco-friendly diet’. Instead, reasons such as limited budget due to being a student and taste preferences, are the prominent reasons into consuming



less animal-based proteins. It was also not seen how these respondents actively purchase products that have clear labelling regarding how the products were ‘better’ for the environment, as defined in Chapter 2, where it is a form of communication of an eco-friendly product.

#### *4.1.2. Plant-based consumption and diet of students in the Netherlands*

The prior section briefly mentioned how a couple of respondents actively purchase meat substitutes as a part of their grocery shopping routine. This section of the analysis will discuss whether or not there is a strong relationship between respondents’ motivation regarding sustainable consumption of general eco-friendly food products or their (sustainable) diet, towards the purchase of plant-based alternatives, focusing on plant-based milk alternatives. To begin, it was mentioned by Interviewee E during the interview when asked regarding the purchases she makes during grocery shopping. She stated, “When I go grocery shopping, I never buy meat, I always buy plant-based alternatives. I always stick to purchasing vegetarian options at the grocery store.”. It is important to note that before answering this question, Interviewee E mentioned that she does not strictly follow a vegan diet, however constantly and actively purchases plant-based alternatives during her grocery shopping trips. This purchase pattern and consumption was also seen in Interviewee D, with the exception that he follows a pescetarian diet. The remainder of the respondents does not mention nor consume as much plant-based meat alternatives as compared with milk alternatives. This section will highlight the reason for that dissimilarity in consumption, focusing on the respondents’ consumption of plant-based milk and their definition and extent of knowledge regarding it.

During the interviews, respondents were asked to define and describe their knowledge of what a plant-based milk alternative entail. Regardless of whether or not the respondents consume it, all respondents were able to define what a plant-based milk alternative is, including naming several examples of the alternatives. It was apparent that different respondents define plant-based milk differently as they emphasise a feature or attribute of plant-based milk that they find most important and prominent when asked to define it. In general, a definition as a result of all definitions combined is that plant-based milk is a milk-like substance that was not obtained from cows or any other animals. Plant-based milk is an extension of the dairy industry, that adheres to the different dietary requirements that different individuals have, which can include lactose intolerance, which was also introduced in Chapter 1 of this paper. The example of plant-based milk that was remarked includes oat, soy, almond, and coconut. This was also reflected when respondents were asked which of the different types of available alternatives in

the market they consume the most, which for Interviewees B and D it was soy milk, meanwhile for Interviewees C, D, and F, it was oat milk, specifically from the brand Oatly.

During the interview, the reasons behind these choices were identified, which were mostly due to taste preferences. For example, Interviewee D mentioned that she had “tried several brands; you have all sorts like coconut or soy, but what made me stick to Oatly was just the taste.”, or Interviewee F, where she mentioned that she “drink it because of flavours and health reasons, I have gotten so used to it – now it’s automatic, so when I go to the store, I don’t even look at other products anymore.” For most respondents, the choice of flavour or brand of the plant-based milk alternative that they purchase now does not change or slightly change from when they first tried it. For Interviewees C, D, E, F, and G had mainly stuck through their initial choices in terms of flavours, and for some, brands. Although they have tried one or two other flavours and brands, for most respondents, the taste; and, for a couple of respondents, the price, is what makes them repeat their purchase. That said, it is also evident that once one flavour from one specific brand is preferred over everything else, price becomes an unnecessary attribute when making the purchase. Interviewee D stated, “I tried several brands, you have all sorts like coconut or soy, but what made me stick to Oatly was just the taste. If I had the choice, I would not consume oat milk from Alpro and that brand is not really important for me, for the aspect of milk.” It was also clear that the pattern emerging from multiple respondents was that oat milk, especially from the brand Oatly, was a popular option amongst the respondents.

Slightly differing from answers discussed in Section 4.1.1., respondents seemed to be more price inelastic when it comes to purchasing plant-based milk alternatives, except for Respondents A and E. Most respondents acknowledged the fact that cow milk costs less than plant-based milk, however, due to numerous reasons, they would continue consuming plant-based milk alternatives at home and outside. An interesting behaviour was portrayed by Interviewee B, where he mentioned that most of the time, he consumes plant-based milk, however, depending on his budget, he alternates between home brands and A-brands, such as Alpro or Oatly – “I think Albert Heijn brand for the price, because it’s much cheaper and Alpro is the most expensive, and I also drink Oatly because it’s in the middle between Alpro and the Albert Heijn brand.” Interviewee E also portrayed a similar behaviour, except that since the price is her main indicator to purchase, and not so much to taste, she has a higher switching cost from home brands to A-brands, “Price, I think it comes down to just price. The flavour doesn’t differ as much as the Alpro one, so I just buy the cheaper one, as it tastes the same, and

it comes down to if it's soya milk. Sometimes I change between oat, almond, and soya." On the contrary, Interviewees C, D, and G all mainly commits to one or two brand or flavour and portrays a more inelastic behaviour towards price when it comes to the consumption of plant-based milk alternatives. For several of the respondents, their purchase decisions and consumption behaviour between consuming alternative meat and milk significantly differ. For instance, Interviewee G strictly consumes coconut milk, or any other plant-based alternative, including when purchasing a cup of coffee at a café. She stated that, regarding paying extra when purchasing plant-based milk with her coffee at a café, "Yes, I already do that (*paying for milk alternative*), but I was very relieved when I saw that Starbucks stopped charging more. I think this should be the standard. I pay more, not because I want to, but just because I have to." However, when discussing her consumption of meat and its alternative, she stated that she is flexible – even though she followed a pescetarian diet. This behaviour of rigidity in consuming (plant-based) milk was also seen in Interviewees B, C and D, where they have a higher elasticity towards paying an extra fee to consume plant-based milk alternatives at a café, whilst not consuming a significant number of meat alternatives, regardless of the diet they follow.

This strict pattern of consumption and purchase of plant-based milk alternatives does not mirror the respondents' meat alternatives consumption. It is interesting to see how, as mentioned by Interviewee E, in some cases plant-based meat alternatives can be cheaper than meat, however, not much consumes it. On the contrary, multiple respondents had stated that although plant-based milk alternatives can be on the expensive end of the spectrum, they remain consuming it, and would even pay up to an extra 50 cents when purchasing a cup of coffee at a café. Amongst all the interview respondents, only Interviewee A said that he would not switch his consumption from cow milk to plant-based milk, for reasons such as taste preferences and price. Interviewee A stated that "I get dairy milk because it's the cheapest form of milk, ..., I can't say I would enjoy drinking plant-based milk for 90 per cent of the time." This means that Interviewee A in most circumstances would not switch to plant-based milk, even if the prices were equivalent to cow milk – which is also what he mentioned in the interview. That being said, it can be concluded that most of the respondents have a more inelastic consumption and purchase behaviour when it comes to consuming plant-based milk alternatives versus plant-based meat alternatives.

#### *4.1.3. Dutch university student decision and purchasing process of plant-based milk alternatives*

Interviewees were asked about the reason why they first became aware and consumed plant-based milk alternatives, as well as the reason why they remain consuming it. Six out of the seven interviewees, with the exception of Interviewee A, still consume and actively remain purchasing plant-based milk alternatives, whether it is for consumption at home or outside. Most respondents become aware of the existence of plant-based milk alternatives through their external environment, such as friends, family, and other acquaintances. Interviewee F told the researcher that she first tried it in the U.S. due to her friend, “I think it was in the U.S., with a friend, and I quite liked it. I then told my mom to buy it in the Netherlands and I started liking it even more.”. Similarly, with Interviewee E and G, it was clear that recommendations, especially amongst friends and family of the same age, or sometimes referred to as word-of-mouth advertising, has a high impact on influencing new consumers. This then raises the question of whether or not respondents are open to recommending their favourite plant-based milk alternative, or have recommended it, to fellow acquaintances. As most respondents remain consuming plant-based milk alternatives, they have recommended the respective products that they consume to other people, which produces an endorsing behaviour and continues the word-of-mouth advertising.

Additionally, the reasons why respondents first tried it, and their reasons to keep consuming it slightly vary. Firstly, one of the common yet slightly inconsequential reasons for the respondents’ consumption towards minimising animal-based protein or consuming plant-based alternatives is their views towards the environmental issues as a consequence of the agricultural practices conducted when producing animal-based proteins, i.e., milk or meat. A few of the interviewees are, prior to the interview, awareness regarding the excessive amount of methane and CO<sub>2</sub> that is created when producing and processing meat and cow milk. Interviewee G also mentioned that, besides the environmental consequences of exploiting cows and land due to grazing, it requires a high-level amount of water that needs to be extracted. The reason why this reason is considered insignificant is that it was evident that this was not why respondents made the switch in the first place. For example, Interviewee B mentioned that a reason why he consumes less meat and cow milk is because of a documentary movie he had watched months prior, which led to educating him regarding the environmental consequences of consuming animal-based proteins; this reasoning is an example of reasoning that comes from both external and internal influence – external being he learnt the information through external sources, such as the documentary, and internally, where he refers that he feels the need to somehow contribute in minimising the negative environmental consequences. Interviewee D also

mentioned that he learnt how “plant-based milk uses a lot or has a lot less footprint than normal milk, because of the cows creating more CO<sub>2</sub> emissions.”. This reasoning then resulted in an internal motivation to the awareness of environmental consequences, which led to the shift of his consumption behaviour from consuming animal-based milk to plant-based milk alternatives. He believes that it rewards him both physically and mentally to consume less or no animal-based proteins.

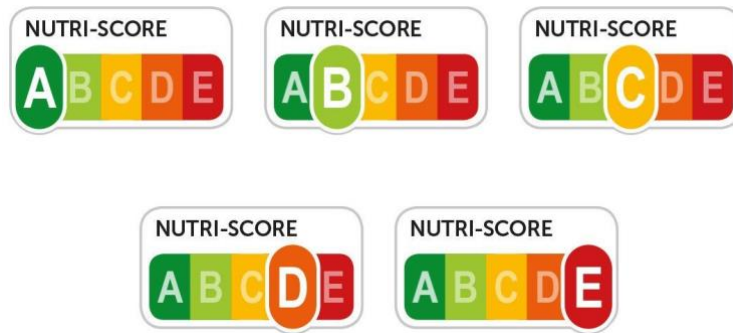
It was also seen from the respondents that when consuming alternative plant-based proteins, they believe that they are taking a step closer to contributing against the negative consequences of consuming animal-based proteins. This reasoning is also present in some of the other interviewees, such as Interviewee A, despite being the only participant that consumes mainly cow milk. Interviewees C, E, and F also mentioned that they are, to an extent, aware of the possible environmental consequences of cow milk, however, it is not as explicit as the other interviewees. This belief is a form of external motivation, where they feel rewarded when contributing to the Earth in a way they can, which is to minimise their consumption of plant-based products. On the contrary, the reason why Interviewees C, E and F consume plant-based proteins or milk is not primarily derived from the same external motivation, rather than being influenced by their taste preferences or the people surrounding them. Interviewee E said, “Whenever I go to my friend's house who is lactose intolerant that I use to visit a lot, we would have coffee with plant-based milk, and I realised I liked it a lot more.” Although there is a slight difference between trying it because of other people and shifting their consumption, the initial switch of purchase decision was influenced by either an internal motivation, i.e., health reasons, or external influences, i.e., the influence of friends, concern towards the environment, etc.

When questioned specifically about whether any environmental concerns influence these respondents into consuming plant-based milk alternatives, most respondents focused on the negative aspect of how cow milk is unsustainable and unkind towards the environment. For example, Interviewee E mentioned, “Something that touched me was the fire at the Brazilian rainforest in 2020, since one of my close friends is from there. She explained to me the urgency of the situation and how devastating it was. It opened my eyes a bit more, and how it’s happening so close to someone’s home.”, meanwhile Interviewee D mentioned that “I knew especially with cow milk; it is not good because of the methane. Although I’m not sure to what extent oat milk is better, I haven’t done any research on it.” The second part of Interviewee’s

D answer regarding how plant-based milk, to an extent might not be *that* sustainable, was also mentioned by Interviewee F. Although it was only Interviewee D and F that mentioned this, it was interesting to see how critical the respondents had become, which is a characteristic of Generation Z, as discussed in Section 2.1.4., even though it was regarding something they have and still consume. It was also repeated by numerous respondents that although they are aware, to an extent, that plant-based milk alternatives are more sustainable relatively to cow milk, most respondents have not researched nor inquired further regarding the manufacturing and production processes of plant-based milk alternatives themselves. As a follow-up, the researcher began examining whether any knowledge regarding the manufacturing and production processes that respondents are indeed aware of, was due to any marketing claims or text displayed on pack. Most respondents answered, that instead of any of the sustainable or eco-friendly claims that were stated on pack – for example, through logos or small texts regarding how much carbon footprint was produced during the manufacturing process – respondents focus more on the health information, such as calcium in the milk, as mentioned by Interviewee F; nutrition-score label, as mentioned by Interviewee D, or simply just the general features of the packaging, such as Interviewee B and E. Through these results, it is evident to see how although environmental values and awareness regarding the negative consequences of the consumption of cow milk are deeply embedded in Gen Z university student's 'culture' and stereotype; it is apparent that it has not become an attribute they seek when making the purchase.

As previously mentioned, most respondents tend to stick to one or two products that fall under the same brand or variant, i.e., oat milk from different brands, or different flavours from the same brand, suggesting that purchases of milk alternatives tend to be a low-involved purchase, where it is more of an automated behaviour rather than something that takes more consideration. For example, Interviewee F mentioned that “I really stick to one (product), I am not that open to purchasing other.” Although some respondents mentioned that they are sensitive to price differences during the sale period or packaging design, most respondents ultimately remained consuming a small range of products, due to high switching costs and strict taste preferences. High switching costs are influenced by the fact that all respondents are students, implying that they have a limited budget, hence making it harder to switch from one brand to another, unless during sale periods – given that they are insensitive to different flavours. During the interview, respondents were also asked about their knowledge regarding a set of eight sustainability-related logos and asked whether any of the logos would influence

their purchase decision. Most respondents, such as Interviewees D, E, and F seem to always pay attention to the nutrient (nutri) score label, as seen in Figure 3 below. This label indicates how healthy and nutritious the product is, relative to similar products in the market, in terms of ingredients.



**Figure 3.** Five levels of the nutri-score label indicating the overall nutritional content value of a food product.

To conclude, this sub-section discusses the different internal and external motivations of consumers in continuing to consume plant-based milk alternatives – from the first time they consumed it and the reason why they keep consuming it. It was evident through this section that as students, price is the main indicator of whether or not a product was going to be purchased. Moreover, as this research focuses on beverages - which strongly depend on one's taste preferences - flavour and brand are also important in the consumer's decision-making and purchasing process. The combination of these three attributes of a plant-based milk alternative is what eventually builds a sense of brand loyalty from consumers towards a brand, because of its affordable price or good flavour. Environmental concerns and information that is visualised on the packaging or any form of advertisement come second to this consumer segment. For most respondents, prior to their purchase, they are already familiar with why plant-based milk alternative is more sustainable relative to cow milk, however, it is not solely because of the packaging design. Most respondents become aware of the issues raised from over-farming and exploitation of the environment, including animals, through outside sources, such as news, documentaries, or school lessons. Hence, price and taste preference remain a substantial indicator when students make their purchase of plant-based milk alternatives, followed by other external motivations, such as environmental issues. This categorises plant-based milk alternatives as low-involvement purchases.

#### *4.1.4. Comparison of plant-based milk alternative consumption behaviour between generations*

This final section of the analysis section will discuss how past generations' consumption behaviour regarding plant-based milk alternative differs from Generation Z's consumption. It will investigate the possible reasons behind it and how multiple entities, such as companies producing plant-based milk alternatives, as well as the government, can influence this sustainable consumption behaviour towards older generations – through the eyes of seven Generation Z university students from the Netherlands. When the respondents were asked to consider possible reasons regarding why there is such a gap between the consumption of plant-based milk alternatives between current and past generations, most of their answers relate to past generations being “stubborn and sticking to the food they are familiar with...”, as mentioned by Interviewee B, or “(older generations) are not really keen on changing their consumption.”, as stated by Interviewee D. These two statements refer to the fact that cow milk, for older consumers, are products categorised under their evoked set – meanwhile, plant-based products, including milk, are categorised under their inept set. Individuals that completely refuse to consume plant-based milk alternatives, will not consider purchasing the product, because they do not support the product, for one reason or the other. For example, these reasons can include culture, tradition, or environment. For a lot of Dutch residents, old or young, it is evident that coming from a country that's diet revolves around dairy, switching to non-dairy products can be challenging. It appeals to the affect component of one's attitude, where it relates through the emotional connection between something they grew up around.

Furthermore, the shift of consumption from cow milk to plant-based milk alternatives has been extremely recent, and older generations might have no way of actually learning about it. Older generations may be completely or partially unaware and uneducated regarding the extent of climate change and global warming that is partially caused by the over-consumption and exploitative farming of cows. According to Interviewee B, “current generations is way more open to consuming milk alternative, compared to older generations, ..., usually, it is older generations that do not want to try new things, as well as generally be more against global warming being as much of a crisis as it is.” Additionally, they can also be that “past generations, in the setting I grew up in, did not have access nor were they greatly aware of plant-based milk alternatives - which I think played a key role in the difference in consumption of different milk kinds amidst the varying generations.”, as mentioned by Interviewee E. As discussed in



previous chapters, Generation Z is known to be a generation that had become a sustainable-driven generation, gathering all information through social media and the Internet. It is important to note, for both current generations and companies, that to acquire an older segment, they might need to mitigate certain strategies, such as digital presence, to offline presence.

The respondents also mentioned that not only older generations are more reluctant and closed-off in consuming plant-based milk alternatives, but they also described the general reasoning behind why they, as a part of Generation Z, are more open to consuming milk alternatives. Most of the reasoning can be categorised under two general groups, namely environmental concern, and access to (digital) information. The latter category refers to the fact that in general, as mentioned by Interviewee C, “new generations consume more plant-based milk alternatives, ..., because they might have more reasons to do so because of their knowledge regarding climate change and environmental issues in general.” Generation Z, specifically this cohort, is still in their early years of adulthood, meaning that their response to especially this question, portrays how these individuals see themselves living in the far future. It is evident that respondents relate mostly to the fact that they are aware of climate change and the far extent of how polluting the animal farming industry can be, which differs significantly from their perspective towards the older generations. It can also be assumed that the increase in awareness of the environment for Generation Z is due to the unlimited access to information, online or offline, which resulted in a higher ‘educated’ cohort of individuals with access to information regarding the effects of consuming animal-based proteins. As mentioned by Interviewee D, the bigger shift of consumption of Generation Z, compared to past generations “has to do with the heavy advertisements and promotion of those on TV and social media, which are targeted towards current generations.”

That being said, it is important to incorporate a different variety of ways of educating and spreading awareness of the importance of this switch to a plant-based milk alternative, and how it could, to an extent, help the environment. During the interview, respondents were also asked what kind of possible marketing strategies could be used in order to attract older generations. Simplicity and health-related claims are the most common answers, relating to how older generations have a strict evoked set. Making a plant-based milk carton look as similar as possible to a cow milk carton would increase the chances of capturing an older person’s attention. “Not making the packaging funky, have bright colours, or unfamiliar slogans or diet information.”, as stated by Interviewee B, is an example of the extent of simplicity that could

be adopted. Furthermore, an important and ever-growing concern for the elderly is health, hence, claims such as “highlighting the increased health benefits and greater nutrition value of plant-based milk alternatives...” (Interviewee E, July 2022) or “Definitely something related to health, such as good for health, everyone nowadays worries a lot on health, like what you ingest in your bodies, ..., for example, my dad is very concerned about health, such as watching out for his cholesterol. So, it would be good to be put that in the front of the carton.”, as stated by Interviewee F. Although it goes slightly contradictory with what Interviewee B said about unnecessary dietary information, it could also attract a sub-section of health-aware consumers that indeed, does read the nutrition label.

The issue of the lack of awareness regarding the environmental consequences goes both ways, for Generation Z, as well as for older generations. This was identified earlier, as it was concluded that for current generations, based on the interview results, environmental concern was not the primary rationale as to why the respondents consumed plant-based products. Hence, it is as important to raise awareness for both past and current generations through marketing actions for these products. Interviewees were asked to describe what kind of attempt these brands should try in order to raise more awareness regarding this issue, however, most answers then drifted to the responsibility of the government. More than three interviewees answered that the government should raise the number of subsidies towards the prices of plant-based milk alternatives, which in return will lower the price to purchase them. On the other hand, when asked about what kind of strategies the companies and producers of these plant-based milk alternatives should implement to increase awareness, most of the respondents' answers were rather ambiguous. They mentioned offline marketing or changing the design of the packaging, however, as previously stated by them, it is highly uncommon to read any marketing claims on the packaging. Packaging, for Generation Z, is more useful to catch one's attention, which can be accomplished through colourful packaging using environmental-related colours, such as green or blue, readable font, and illustrations, but at the same time simple and easy to comprehend.

To conclude, with the current development of digital information and social media, Generation Z seemed to have presented a stronger environmentalism mentality relative to the older generations, which influences their shift of consumption from cow milk to plant-based milk alternatives. Although it was also seen that the marketing efforts conducted by these companies are not enough towards both older and past generations in order to educate them regarding the

negative environmental consequences, different approaches must be taken for both generations. Whilst it seems like Generation Z consumers prefer a simple yet fun and inviting slightly quirky aesthetic, the older generation is expected to want a feeling of familiarity, thus, the packaging should mimic an actual cow milk packaging, with no funky colours or weird labelling or texts. When targeting older consumers, Generation Z consumers believe that there will be a level of trade-off, as the focus of the advertising will slightly be different, which might not be of interest towards Generation Z consumers.

## **Chapter 5: Conclusion and Recommendations**

### *5.1. Conclusion*

To overall conclude this study, this research aimed to explore the decision-making and buying process of Dutch Generation Z cohort consumers concerning plant-based milk alternatives. The focus of this study was split into four main sections, which include the discussion of eco-friendly food and diet, and what is considered as one; plant-based products and what is considered as one; the specific consumer behaviour, such as decision-making and buying process of plant-based milk alternatives; and lastly, the general consumption behaviour of Generation Z, compared to older generations, with regards to plant-based milk alternatives. To examine this topic, seven online and offline in-depth interviews were conducted with a mix of male and female university students, ranging between the age of 19 to 23. The result shows that respondents actively minimise their animal-based protein consumption and consume plant-based alternatives. However, this mostly occurs only for plant-based milk alternatives, rather than meat. Contributing factors can include price, health concerns, and taste preferences, which seemed to be more influential than any environmental issues or values they might have. Regardless of the motivation and reason why these consumers consume plant-based milk alternatives, a price inelastic behaviour was evident towards plant-based milk alternatives. To some extent, this result aligns with the first proposition, however, it does not capture the influence of other factors, such as taste preferences, dietary requirements, as well as price.

In relation to the definition of a plant-based diet by Aschemann-Witzel et al. (2020), this generational cohort of consumers indeed portrays the paper's definition of a plant-based diet, which does not necessarily cut out entirely their animal-based protein intake, rather they minimise, avoid, or reduce their consumption. This behaviour is harder to pinpoint in older generations, as it seems like, from the perspectives of the interviewees, older generations have a stronger connection that ties them to the consumption of animal-based proteins, such as tradition and values of consuming dairy and meat. This can be related to Maslow's hierarchy of needs (1943), which helps differentiate internal to external motivation. With older generations, their rigidity towards switching to plant-based products is driven by their pride and values attached to the consumption of animal-based products, such as that they were farmers themselves. This is a form of internal motivation, but also a strong emotional component in their attitude. That being said, the government and companies can attempt to influence their shift in behaviour, such as that by subsidising the production of plant-based

milk alternatives and conducting an alternative marketing strategy specifically toward older generations. For instance, the mentioning of health benefits or environmental advantages of consuming the product might be a strategy that could be adapted.

For the most part, it is evident that plant-based milk alternatives are products in the respondent's evoked set; their behaviour shows inelasticity towards the price, even if they are aware that cow milk is a cheaper alternative. Some respondents depict a more price-susceptible behaviour, meaning that they would go for cheaper home brands, whilst other respondents prefer paying a premium for a brand that they are loyal to. Regardless of which brand they purchase, respondents tend to stick to one or maybe two brands or flavours, which shows that they have a low-involvement choice process. This means that the act of purchasing and buying plant-based milk alternatives has become a habitual and routine process, that does not take much consideration and effort to make a choice and does not spend that much effort evaluating possible choices (Belch G. & Belch M., 2009). As plant-based milk becomes the main component of their evoked set, the result of this section aligns with the third proposition.

On the contrary, the results of the last sub-section do not align with the fourth proposition, namely how Generation Z individuals tend to put forward issues in their decision-making processes, which can include their sustainable food consumption and lifestyle. It was previously concluded as well, that even though these respondents are a part of the generational cohort, their behaviour is strongly influenced by the fact that they are students, and that it comes with a budgetary limitation. These respondents do not actively make their decisions to solely consume plant-based milk alternatives, or even meat alternatives because of having some sort of environmental concern or guilt. The initial decision that makes them start their buying process maybe be a level of awareness, but when evaluating alternatives, it all comes down to price, taste preference, and even brand loyalty – but not which product is relatively more sustainable than the other. However, Francis & Hoefel (2018) did mention that the generation Z cohort indeed is relatively more actively concerned towards eco-friendly consumption and practices, however, the statement by Greenstein (2019), implies that generation Z is less sensitive to prices when finding a brand that aligns with their values, is not entirely correct, but is, to an extent, proven as well in this research.

## *5.2. Managerial recommendations*

The findings in this research can be highly applicable, with more research, regarding potential feasible marketing strategies specifically for plant-based milk alternatives for both generation Z and past generations, as this research investigates both. With the focus being on the generational Z cohort, it is important to highlight how although these consumers are highly aware of how polluting and dangerous exploitative farming can be for the environment, they are lacking the knowledge of how plant-based milk alternative is sustainably produced. This is important to be developed, as a pattern of critical thinking towards the extent of plant-based products' sustainability level was identified. This research also briefly explored specific product packaging attributes, such as colour choices and aesthetic features that this generational cohort prefers, which in turn, might be not of interest to the older one. Therefore, managers can utilise the results of this research to understand the reasoning behind why consumers from the current generation consume what they consume, and what makes them remain consuming it. It might also be useful to grasp a bigger market of potential generation Z consumers that are both following the vegan or vegetarian diet, or even the ones that are not – as it is evident that from this research, six of the seven interviewees consume plant-based milk alternatives mostly on a day-to-day, and only two out of the six are active pescatarians.

Brand managers can also build a marketing plan that can induce the movement of consumption from animal-based milk towards plant-based milk for the older generations. This can utilise claims and prompt a movement towards a 'healthier' lifestyle, such as that healthy food is an example of an important factor in an older generation's diet. Claims such as it 'reduces chance of cholesterol', or 'no added sugar' can influence these consumers to be attracted to the product. As mentioned before, when the marketing strategy is aimed at an older generation, there might be some possible spill-over which can cause disinterestedness in the current generation, which does not put forward cholesterol or sugar intake as much as older consumers.

### *5.3. Research limitations and future research recommendations*

During this research, multiple challenges were encountered. Firstly, the interview and sampling method can be considered slightly flawed. As this research examines a pool of Dutch sample, it is important to have conducted the interview in the interviewee's native language and/or mother tongue to prevent language barriers when answering the question. Moreover, the sampling method is not considered to be completely random, which can induce selection bias, such as that respondents all reside in Rotterdam, even though they come from different parts of the country. This may have impacted the result of the interview, where their pattern of

behaviour and consumption follows a regional trend, rather than a behaviour influenced by their general childhood and lifestyle background – and the fact that they are Dutch students. Additionally, it also does not distinguish further whether they were raised in an international setting, in the Netherlands or abroad, which might further their answers regarding the behaviour of past generations, as well as their own consumption behaviour, which might be affected by the culture and values of the place they grew up at.

In order to improve the result, for this research and the next one, it is of the most importance to make sure the sample of the population is as representative as possible, such as that gender, age, education level, as well as childhood exposure, which was not considered when sampling the interviewees, to be taken into account. Additionally, a larger sample pool could also increase the reliability of the interviewees' answers, which could help make a better recommendation for managers and even, the government.

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## Appendix A

**Table A.1**

Interview Questions

<b>Section 0: Disclaimers and General Information</b>	
1.	Ask permission to interview and to be recorded
2.	Introduce the interviewer and the purpose of the interview
3.	Ask permission for interviewee's answers to be attached into the thesis
4.	Mention that interviewee is free to withhold any answers
5.	Interviewee to state initial(s) and last name
6.	Interviewer to state the date of the interview
7.	Interviewee to state the gender they identify with
8.	Interviewee to state their city, country, and date of birth
9.	Interviewee to state the current city they reside in
10.	Interviewee to state the name and year of their current study
<b>Section 1: General and Sustainable Lifestyle Questions</b>	
1.	What does your week look like in terms of consumption, i.e., food and beverages?
2.	What does your current diet look like?
3.	What are your reasons to follow that diet?
4.	Do people around you follow the same diet? How did you influence or become influenced by them?
5.	Please describe your typical grocery shopping process.
6.	Are there any (online) supermarket chain that you prefer? Why?
<b>Section 2: Plant-based milk alternative consumption behaviour and knowledge</b>	
1.	Do you follow any vegetarian/vegan/pescetarian/other particular diet? Why or why not?
2.	Do you know what a plant-based milk alternative is?
3.	Do you consume plant-based milk alternatives? For what do you consume them for? <i>If the interviewee does not follow a particular diet, interviewer will ask: If you do not follow any particular diet, what is your reason to consume plant-based milk alternatives?</i>
4.	Which brand and flavour of plant-based milk alternative do you consume?

5.	Are there any particular reason in you consuming these brands and/or flavours?
6.	What was the reason of why you first consumed plant-based milk alternatives?
7.	Have you consumed any other brands or flavours prior to the one you are currently consuming? <i>If the interviewee switched from the first product that they tried to the one they are currently consuming, the interviewer will ask: What made you switch from the first product you tried, to the one you are currently consuming?</i>
8.	Are there any environmental concerns, issues, or values, that motivates you into consuming plant-based milk alternatives?
9.	Are there any claims on the packaging regarding eco-friendliness or sustainability that you read, that influences you into purchasing a plant-based milk alternative product?
10.	Generally, do you read any text or claims written on the packaging before you make the purchase?
11.	What do you look for when you walk into the milk aisle of a supermarket?
12.	What is the average price of a plant-based milk alternative product that you purchase?
13.	Considering the prices listed earlier (by the interviewee in Q12), would or have you bought more during sale or discount periods?
14.	Would or have you recommended the product(s) that you consume to any friend, family, or acquaintances?
15.	<i>Interviewer will show a PowerPoint presentation containing different eco-friendly or sustainability-related logos as seen in Table A.2 and ask the interviewee to say whether or not they are familiar or know the logo. If they do, respondents are asked to describe the meaning of the logos or labels.</i>
16.	Considering the logos and labels you just saw; does it influence your purchase decision towards plant-based milk alternatives?
17.	How important are these logos and labels for you when making a purchase?
18.	Would or have you paid extra to drink plant-based milk outside of your home? For example, at restaurants, cafés, etc.
19.	What would your maximum willingness-to-pay extra to get plant-based milk alternatives at an external location?
<b>Section 3: Marketing strategies with regards to past and current generations</b>	
1.	What are your thoughts regarding the difference in consumption of plant-based milk alternatives between current and past generations?

2.	What do you think are the reasons to these differences?
3.	What kind of marketing efforts and/or strategies, such as claims, advertising, aesthetic features on packaging, that might influence these older generations into consuming plant-based milk alternatives?
4.	Do you think by changing the target audience of these marketing efforts and/or strategies to older consumers, younger consumers will be positively or negatively influenced towards their consumption of plant-based milk alternatives?
5.	What kind of aesthetic attributes or features on-pack would attract you (as a Generation Z consumer) to purchase or consume plant-based milk alternatives?
6.	What do you think these companies should do in order to raise awareness towards their consumers regarding the level of eco-friendly and sustainable their products are?
7.	What do you think the attitude of the Dutch government should be in order to shift more demand of cow milk towards demand of plant-based milk alternatives? Do you think it has been enough? Why or why not?
8.	Do you think locally produced products, such as plant-based milk alternatives that are produced in the Netherlands, will increase yours' or potential consumer's chances into purchasing it? Why or why not?

**Table A.2.**

Eco-friendly and sustainability-related logos shown to participants

<p>Logo A</p> <p><i>Forest Stewardship Council (FSC) certification logo</i></p>	
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Logo B  
*Nutri-score rating logo*



Logo C  
*Organic certification by the EU*



Logo C  
*Vegan logo*



Logo D  
*Organic soil association certification logo*



Logo E  
*TetraPak packaging logo*



Logo F  
*The Green Dot logo*



Logo E  
*EU European Vegetarian Union - Vegan label certification*



**Table A.3.**

List of interviewee initials and last name, corresponding codes, place and date of birth, study level and year, and gender.

<b>Initials &amp; last name</b>	<b>Code</b>	<b>Date of birth</b>	<b>Study level and year</b>	<b>Gender</b>
A. Jain	A	Haarlem, The Netherlands, 8 <sup>th</sup> September 2001	HBO, 3 <sup>rd</sup> year	Male
J.S.T. Buwalda	B	Johannesburg, South Africa, 7 <sup>th</sup> July, 2000	WO, 4 <sup>th</sup> year	Male
N.A.J. Driessen	C	Breda, The Netherlands, 21 <sup>st</sup> July 2001, 2001	WO, 2 <sup>nd</sup> year	Female
J.H. Koolhof	D	Hardenberg, The Netherlands, 19 <sup>th</sup> November, 1999	WO, 3 <sup>rd</sup> year	Male
J.M. van Stenis	E	Moscow, Russia, 16 <sup>th</sup> January, 2003	WO, 2 <sup>nd</sup> year	Female
A.N.M. van der Steen	F	Heghen, The Netherlands, 13 <sup>th</sup> November, 2000	WO, 3 <sup>rd</sup> year	Female
B.M.T. Kamphuis	G	Hilversum, The Netherlands, November 21 <sup>st</sup> , 2000	WO, 3 <sup>rd</sup> year	Female

## Appendix B: Interview transcriptions

**Table B.1.**

Interview result with Interviewee Code: A on 26 June 2022

Questions	Answers
What does your typical weekly consumption of food look like?	My breakfast usually is a cappuccino, and usually some form of cookie with it. On days that I train or play top sport, I would have a bit of heavier breakfast, that might include scrambled eggs, toast, cheese, some fruits, porridge. Lunch I'd say 2-3 days in a week is some form of pasta, and the other 1-2 days are some forms of sandwiches that are fairly light or simple. Sometimes fried rice or noodles, a bit snacky. Dinner will be 2-3 times a week I would have Indian cuisine-style dinner. Not fatty and relatively healthy. I don't snack too much, I'd have a bowl of chips once a week, and I try to eat a piece of fruit once a day. Beverage wise, coffee with milk, I drink it a lot, around 2 to 3 times a day. A lot of water, some form of fruit juice also once a day.
What does your current diet look like?	I am not vegan, vegetarian, or pescatarian. I eat everything.
What are your reasons to follow that diet?	What I eat or drink is because it is what I like, not for any other particular reason, or because people around me drink it. I eat the way I eat, is partially because I live at home (with my parents), so it depends on what is cooked at home. Otherwise, if I'm eating out for lunch or dinner, I would eat, for the main part, cheapness, and convenience. But also, by choice, I choose for instance, not to eat very fast-food stuff, like burger and friends or pizza, or any processed food.
Do people around you follow your same diet?	N/A

How does your grocery shopping process look like?	I do it once a week for main grocery shopping to fill up the general stuff at home. Maybe once more time during the week to get extra things, whether it's milk, cheese, or yogurt.
Are there any (online) supermarket chains that you prefer?	We usually go to Albert Heijn, Jumbo, or Dirk. We go to Albert Heijn for the extended variety of products and bigger choice. Dirk because it's cheap for basic essentials, and Jumbo because for their coffee because they have a good coffee selection.
Do you know what a plant-based milk alternative is? Can you define it?	To my knowledge, a plant-based milk is milk that does not come from an animal, for example cow, sheep, goat, buffalo, and so on. Plant-based is like soya, almond, peanut, and so on. That's the ones I can think of so far.
Do you drink plant-based milk? What brands and flavours/type do you drink?	I drink a lot of milk, mainly for coffee but I for sure have it sometimes with muesli, corn flakes with a bowl of milk. On average, once a day I also drink a glass of milk, on average. It would be 90 per cent of the time cow milk, half, or full cream, but sometimes I would have the Alpro almond milk.
Any particular reason you drink cow milk more than plant-based milk?	I like the taste. I like the Alpro almond milk 10 per cent of the time, just to change up the taste. I like both the barista and non-barista line. I get dairy milk because it's the cheapest form of milk. Dairy milk goes well with coffee and cereal. I can't say I would enjoy drinking plant-based milk for 90 per cent of the time.
When you do purchase plant-based milk, which one do you buy?	I get the Alpro almond milk, both the barista and the normal line. It is solely about the taste since I like it. If I'm at a supermarket outside of my neighbourhood and I need or want almond milk, but they don't have Alpro, then so be it, I will buy whatever they have. But usually, Alpro is the safe choice. Sometimes I also drink Oatly.
What would be the maximum willingness-to-pay for a carton	Currently I pay around 1.50 euros for a carton of milk, like Campina, and plant-based milk is around 2.50 euros to 3

<p>of milk, for you to fully switch to plant-based milk?</p>	<p>euros. In my case, would I drink 90 per cent of the time plant-based milk, and 10 per cent of the time dairy, that would never happen. Would I drink it more often? Probably yes if it was cheaper. That would have to be around the same price of a normal dairy milk. At the furthest in terms of portion, I would drink 60 per cent dairy and 40 per cent plant-based.</p>
<p>What do you think of the current price range of plant-based milk market in the Netherlands?</p>	<p>I don't spend a lot of time looking at all the plant-based milk, but I do know for sure it's a bit expensive. I generally like fresher milk, so when I buy dairy milk, I buy the fresh one. Plant-based milk sometimes are in the fridge section of the supermarket, but majority of them are long-lasting, and I like more fresher stuff. But in terms of price range, it's on the expensive side, so I don't know how easy or difficult it is to make it, production-wise, so I think it should be priced around the same as dairy milk.</p>
<p>What do you think of the current flavours of plant-based milk market in the Netherlands?</p>	<p>I'm aware that there are a lot of flavours and types of plant-based milk.</p>
<p>What do you think of the current (sustainable) claims of plant-based milk market in the Netherlands?</p>	<p>I know that they are trying to push forward sustainable claims, where they have fair-trade plant-based milk, whether it's soya milk, or coconut milk, that the plantations of these soya beans or coconuts grow that they're done following fair-trade guidelines, that they don't use child labours, et cetera. Do I know if that's for sure that's the case, I don't know, but do I believe that it's more sustainable than dairy milk, yes, because I think plants will be around much longer than cows. Also, I know that cows, for instance, are quite polluting and bad for the environment. Not only that, but they also take up a lot of land to graze and all that. Do I believe plant-based milk is</p>

	more sustainable in the future, yes. Do I believe it's produced more sustainably right now, not necessarily.
What do you think of how these plant-based milk product are packaged? Do you think they're attractive enough?	For milk, it's more of a choice of what the product is, and not necessarily incentivised to buy one over another because it's packaging. But what stands out to me, I would say Oatly by far because first of all, it is the only plant-based milk that I have seen an advertisement for, like a video advertisement on YouTube or TV. They are kind of the odd one out, they have like a light blue or light grey packaging, their full carton is not a standard white colour. It kind of stands out. They're packaging or text on the packaging it's kind of playful, it looks like someone had written on it and not a standard font choice.
Would you pay extra to drink plant-based milk outside, i.e., cafes or restaurants.	Absolutely not. I would never opt to choose for plant-based milk. If it was free, sometimes I would.
Do you buy more milk when it's on sale?	I only buy it when I need it, I would buy at whatever cost. I would not buy it more because it's on sale.
Average price of milk you buy?	For a one litre carton of milk, my maximum will be around 2 euros.
What are your thoughts regarding the difference in consumption of plant-based milk alternatives between the current generation, i.e., Generation Z and past generations? What do you think are the reasons for any differences that there might be?	I think older generations will for sure be traditional in consuming normal milk and be less open to plant based milk. The main reason being simply because plant based milk did not exist back then.
What kind of marketing strategies,	I think the older the generation, the more immune they are to advertisement from third parties and would only likely

<p>i.e., marketing claims, advertising, aesthetic attributes on the pack, that might influence these older generations into consuming plant-based milk alternatives?</p>	<p>be influenced by word of mouth from other people from the same generation.</p>
<p>What kind of aesthetic attribute/features on pack would attract you into purchasing plant-based milk? This can include: colour, font, marketing text, etc.</p>	<p>None, I go purely based on taste after trying them all and brand reputation.</p>
<p>What do you think these brands should do to increase awareness towards their consumers, about the extent of how environmentally-friendly and sustainable these products are?</p>	<p>In my opinion, they can't really do much more. Some people will consume because of how well the milk is marketed, but I think most will consume based on its taste. For centuries people have been used to normal milk and I don't think that will change.</p>
<p>What do you think the attitude of the government should be towards the shift in demand from cow milk consumption to vegan milk in the Netherlands?</p>	<p>The government should be neutral in my opinion. Both milk types have their own health benefits. If anything, the dutch government can promote locally produced cow milk and encourage its consumption, but only to a certain limit due to its detrimental climate repercussions.</p>



<p>Do you think if a product is locally produced in the Netherlands, it would increase your chance of purchasing it? Why or why not? What are your thoughts regarding this in terms of plant-based milk and regular cow milk?</p>	<p>I don't think it would greatly affect my likelihood to purchase plant based milk. However, I would not buy plant based milk from America for instance, as long as its produced in the region. It is however difficult to produced local plant based milk in NL, but I would for sure only really have dutch cow based milk.</p>
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**Table B.2.**

Interview result with Interviewee Code: B on 26 June 2022

Questions	Answers
What does your typical weekly consumption of food look like?	Skips breakfast, lunch on campus, and meat-based dinner. Lunch is normally a yogurt or salad or wraps with meat.
What does your current diet look like?	Sometimes consume meat, have been switching to plant-based milk, except when cooking with other people, then will use meat since it is easier with calories and protein intake, as well as cheaper than plant-based meat in terms of price.
What are your reasons to follow that diet?	As a student, price definitely plays a role, for environmental impact although it's a bit contradictory because it's cheaper but worse for the environment, but I was heavily influenced by living with a vegan, which influenced me into eating cuisine of alternative plant-based food.
Do people around you follow your same diet?	My sister is pescatarian and gluten free, so she consumes plant-based milk, my mom and dad are heavy coffee drinkers but have also switched to plant-based milk, which have been quite well-produced i.e., easily frothed. My brother's girlfriend is also vegan. I've also been one that does not fuss about food, so changes in my diet over past year have been influenced by family and housemate.
How does your grocery shopping process look like?	I don't go grocery shopping more than two days; I like going to the supermarket to cook that night to be inspired. I go to the supermarket usually four days a week. I usually go to the Albert Heijn because they have more options for plant-based alternatives. When I order food, I don't normally look for alternatives, I then just go for classic full meat.
Are there any (online) supermarket chains that you prefer?	Albert Heijn, Gorillas, Spar University (although on campus they don't have any plant-based alternative). For coffee, I usually go to Jack Bean to get plant-based milk for my coffee because the machine does not provide any.

<p>Do you know what a plant-based milk alternative is? Can you define it?</p>	<p>Yes, I do. I think it's the product of trying to decrease the reliance on cows, since it is a big greenhouse gas emitter and methane. I think it's a milk-like substance to have for similar products like coffee or cereal but based on plant. It is also to adhere to people with certain dietary requirements, but also a form of extension to the dairy industry.</p>
<p>Do you drink plant-based milk? What brands and flavours/type do you drink?</p>	<p>Yes, I do. The biggest one I drink is Alpro soya milk, they have the barista line as well. I also drink Albert Heijn brand pea milk, it's a bit sweeter, actually, so sometime home brands. Alpro would be the main brand.</p>
<p>Any particular reason(s) you purchase these brands?</p>	<p>I think Alpro was the first mover in the industry, which gave me more confidence in their experience in milk alternatives. I think Albert Heijn brand for price, because it's much cheaper and Alpro is the most expensive, and I also drink Oatly because it's in the middle between Alpro and the Albert Heijn brand. I drink the barista line of Alpro because it allows me to foam the milk for my coffee, which is normally difficult for plant-based milk. Hence, for coffee and price.</p>
<p>What was the reason of why you first consumed plant-based milk?</p>	<p>I would say my sister, who was lactose intolerance, and my brother because his girlfriend is lactose intolerant. Later also because I moved in with someone who is vegan.</p>
<p>Do you follow any vega diets? If not, why do you consume plant-based milk?</p>	<p>I am influenced by people around me, but I also have had an increasingly growing conscience about environmental concern, for sure. One thing I'm having difficulties moving away (from the dairy industry) is cheese.</p>
<p>Have you consumed any other brands (before the one you are actively consuming right now)?</p>	<p>Other than oat, soy, pea, I might have tried others but none that I can recall.</p>
<p>What are, if any, environmental concerns that motivate you into</p>	<p>I think in school and the Leonardo di Caprio documentary, documented the effects of methane in cows being such a big greenhouse gas emitter, and how that affected the environment. School definitely taught us that, since my high</p>

<p>consuming plant-based milk?</p>	<p>school was a big pusher of plant-based products, so that also had an influence. Also, my sister's conspiracy theories about health and environmental concerns.</p>
<p>What is the average price of plant-based milk you purchase?</p>	<p>Albert Heijn brand is around 1.50 and 1.70 (euros per carton of 1 liter), Alpro barista I think up to 2.50 (euros) but that takes longer for me to consume because it is only for coffee, and Oatly around 2 (euros).</p>
<p>Do you make your purchase solely on the brand, flavour, or are there any claims or logos on the packaging that interest you into buying the product?</p>	<p>I think I've definitely been influenced by the Alpro barista line, because they claim to be good for coffee, and I have never tried any barista line from other house brands. Pea milk is sweeter, which is nice for cooking. Oatly also have information on their packaging about how much less carbon they emit than competitors, and they give reasons of why you should not drink (cow) milk. They also do a lot of advertising, and they're advertising is a bit of gorilla marketing, which attacks the dairy industry in a fun way, for example. It's not necessarily influenced me, but I would see the Albert Heijn line's packaging being very simple, and that gives me the impression that it's cheap. And because it's cheap in the price as well, I accept it as a student as it being a lower quality as well.</p>
<p>If you were to go to a milk aisle in a supermarket, what would be the first thing you look at?</p>	<p>I would say the quantity, because milk goes bad quite easily; so, something above 1.5 litre, I don't consume that quick enough by myself. The sizes, for sure. The different packaging also, because I'm intrigued by milk in a glass bottle, so not plastic, and carton as well because it is better for the environment than plastic. Price is definite, but quantity is number one because price per litre usually stays the same. I would not necessarily pick a high-quality brand because most supermarket line brands are pretty good.</p>
<p>Do you read any texts written on the packaging when you make the purchase?</p>	<p>Except for Oatly, no. Unless I'm bored at home, then I would read it, but not when making the purchase.</p>

<p>Are you interested in the extent of how sustainable production, manufacturing, or the product itself is?</p>	<p>This might be a bit biased, but since I worked for an expensive brand of cheese, we did kind of experience of how farmers had specific requirements for the milk, so I did get to understand what makes a cow happy to produce a certain quality of milk. For example, the land that they're given, the grass they're allowed to eat, how often they are allowed to be outside in a year. But if it's packaged on the carton of the milk, I don't think I would necessarily read it. Sometimes I would like to read the 3-star <i>beter leven</i> for chicken, which is a rating of how good the animals were treated, but then again, the one star is the cheapest, and as a student, it doesn't really bother me.</p>
<p>Logo knowledge</p>	<p>Logo A: It does look familiar, something about forest trees.  Logo B: Yes, a European incentive for how good it is for you.  Logo C: Certified by EU, but not what it means but I do recognise it.  Logo D: Yes, if it's vegan, vegetarian, or not.  Logo E: I'm not too familiar.  Logo F: Rings a bell, but not sure what those entails.  Logo G: Maybe something with recycling? Also not familiar.  Logo H: A verification if it's vegan or not, not recognisable but pretty self-explanatory.</p>
<p>Considering all the logos you just saw; does it help you purchase the product more? How important are these logos for you when making a purchase?</p>	<p>I would say out of the 8, at least half I didn't recognise; so, if they were standardised and made universal, if everything were given a rating from one to five, then I would be influenced. But if there are so many different ones, it's quite hard to keep track of. But the nutri-score, A to E for example, that one I would look at. And the logo that says if it's vegan or not.</p>
<p>Considering the average prices you listed earlier, do you buy more milk during discounts or sale?</p>	<p>For plant-based milk, since they have longer shelf life than regular cow milk, if there is a 2 for 1 or 1 for 1 deal, then I would definitely take it. For the barista one for example, I would definitely take the deal, since it is very expensive. If it's a value line Albert Heijn brand, I would not necessarily take another one to get a discount, since the quality is low, and if</p>

	it's regular milk, I wouldn't necessarily go for the extra carton since they expire quickly, so I stick to what I need.
Would you pay extra to drink plant-based milk outside, i.e., cafes or restaurants.	I think I understand why it would be more expensive, because (cow) milk is so cheap. I would not spend more for plant-based milk, because normally it is cheaper to get the normal cow milk.
What would be your maximum willingness-to-pay extra outside to get plant-based milk?	Below 30 cents, yes; between 30 and 50 maybe; and more than 50 no.
What are your thoughts regarding the difference in consumption of plant-based milk alternatives between the current generation, i.e., Generation Z and past generations? What do you think are the reasons for any differences that there might be?	I definitely think that the current generation is way more open to consuming milk alternatives than older generations. This could either be because the current generation has more understanding and care for the planet and the current global warming crisis, or because newer generations are more open to trying new things. Older generations can generally be more stubborn and stick to the foods/drinks they are familiar with and understand. Usually it is older generations that do not want to try new things, as well as generally be more against global warming being as much of a crisis as it is.
What kind of marketing strategies, i.e., marketing claims, advertising, aesthetic attributes on the pack, that might influence these older generations into consuming plant-based milk alternatives?	Possibly to make it look as much as a normal milk carton packaging as possible, therefore making them think it could be a substitute. Not make packaging funky, have bright colours or unfamiliar slogans/diet information. In short, keep the packaging as simple as possible.
Do you think these changes will influence us, as younger people, to consume more or less of the plant-based milk	Yes, I think that current milk alternatives are packaged to be branded towards younger generations, as these companies generally know that they are the target audience that milk alternative companies are looking for. So if it were to be dulled

<p>alternatives than the level we are at now - if those new marketing strategies for older generations are implemented?</p>	<p>down and generalized, it would not seem like a radical diet switch anymore/be interesting. Or it could have the complete opposite effect and make milk alternatives very mainstream, and so targeted to everyone, ultimately achieving its goal in lessening the consumption of milk.</p>
<p>What kind of aesthetic attribute/features on pack would attract you into purchasing plant-based milk? This can include: colour, font, marketing text, etc.</p>	<p>Simple packaging but in a modern way (i.e. the Gorilla marketing attempts of Oatly but on the packaging). The marketing texts on the Oatly cartons are in different fonts and interesting styles and somewhat mimic the mainstream milk companies.</p>
<p>What do you think these brands should do to increase awareness towards their consumers, about the extent of how environmentally-friendly and sustainable these products are?</p>	<p>Take the ideas of Oatly are share how environmentally friendly their production is, while possibly decreasing the price further to compete more with mainstream milk (this might be difficult as milk is heavily subsidized in NL, but would make competition better). Additionally, they could target the reasons why people still drink normal milk (i.e. explain why preconceived biases are unjust).</p>
<p>What do you think the attitude of the government should be towards the shift in demand from cow milk consumption to vegan milk in the Netherlands?</p>	<p>Subsidize milk alternative production to decrease prices for the consumer, or encourage farmers to give up dairy production and switch to milk alternatives production instead. Additional health information about milk and its alternative, as well as environmental effects information of the two, should be crucial.</p>
<p>Do you think if a product is locally produced in the Netherlands, it would increase your chance of purchasing it? Why or why not? What are your thoughts regarding this in terms of</p>	<p>Yes, because the Dutch are very proud of our cows and dairy production industries. We love our cheese and landscapes in which cows are often the focal point. We view milk as a normal part of everyday healthy diet, and would never drink imported milk from elsewhere. If this same approach could be taken for milk alternatives (i.e. if produced by the same Dutch farmers) it could give consumers the same pride as when they buy regular</p>

plant-based milk and regular cow milk?	milk, and hence increase the chances of everyday Dutch people purchasing it.
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**Table B.3.**

Interview result with Interviewee Code: C on 6 July 2022

What does your typical weekly consumption of food look like?	I don't always eat breakfast – when I do, I eat, generally, yoghurt, and then I eat lunch such as a sandwich or rice crackers. And for dinner, it's more diverse – sometimes pasta, salad, or rice. I don't often eat meat. I don't drink coffee often, when I do, I only drink it with oat milk. I hate cow milk. I also drink lots of water, tea, and tomato juice.
What does your current diet look like?	I don't follow any specific diet.
What are your reasons to follow that diet?	There's not really a reason, but then I don't eat meat or fish often. I don't see it as necessary, but sometimes I do enjoy it.
Do people around you follow your same diet?	My diet is not influenced by people around me, we just happen to have the same diet. Some friends of mine are vegetarian, but not enough to influence me.
How does your grocery shopping process look like?	During the week, I do it once a week for more general stuff. But for dinner, I go usually every day because I sometimes cook for other people too. For breakfast and lunch I buy weekly.
Are there any (online) supermarket chains that you prefer?	I always go to Albert Heijn. Sometimes I go to Aldi or Lidl but that's really rare. I go to Albert Heijn because it's the closest and easiest for me – it's still pretty expensive that's why sometimes I switch to Aldi or Lidl.
Do you know what a plant-based milk alternative is? Can you define it?	Plant-based milk is products that are not made from animals, such as oat or almond milk. Anything that is not made out of animals.
Do you drink plant-based milk? What brands and flavours/type do you drink?	I only drink plant-based milk and I only drink Oatly.
Any particular reason(s) you purchase these brands?	To be honest, I never tried anything else. I just think it tastes good. But I don't buy it that often either. I buy the barista one,

	with the grey packaging. I buy this one because I think it's more premium and the consistency is a bit thicker.
What was the reason of why you first consumed plant-based milk?	I think it might have been with my mom in a café in Rotterdam, and I just tried it because I saw from an Instagram ad and on the menu, so I tried it and liked it.
Do you follow any vega diets? If not, why do you consume plant-based milk?	I think it's just because of the flavour. Not any environmental concern reasons to be honest.
Have you consumed any other brands (before the one you are actively consuming right now)?	I think I have tried Alpro soy milk, and I like it but I still prefer oat milk in general.
What are, if any, environmental concerns that motivate you into consuming plant-based milk?	No, not really. It is a nice little advantage that it's better than cow milk for the environment, but I don't know.
What is the average price of plant-based milk you purchase?	I don't know but im aware that it's quite expensive, I think around 2.3 to 2.5 euros.
Do you make your purchase solely on the brand, flavour, or are there any claims or logos on the packaging that interest you into buying the product?	No, but I do know that Oatly has this blogger that promotes it for the longest time because then it's like, unconsciously, I've been exposed to it so often so it's the only one I'm familiar with.
Have you recommended the plant-based milk alternative you consume to someone else?	Yes! I am like, so enthusiastic about this, but liking products like this really depends on the person. I don't think it fully depends on the brand, but more about preferences regarding taste.
If you were to go to a milk aisle in a supermarket,	I never really go to the milk, when I do, I only go to the section where they sell what I want. I don't per se try anything new because I also don't drink that much coffee.

what would be the first thing you look at?	
Are you interested in the extent of how sustainable production, manufacturing, or the product itself is?	I always assume Oatly is sustainable, but maybe not as much. I read an article once saying that it's not as sustainable as we think it is, something about water. Although, I never did complete research about it.
Logo knowledge	Logo A: Yes. Logo B: Yes, nutritional level of a product. Logo C: I do recognise this. Logo D: No. Logo E: No. Logo F: Yes, but not completely sure what it means. Logo G: I recognise this, something about recycling. Logo H: No.
Considering all the logos you just saw; does it help you purchase the product more? How important are these logos for you when making a purchase?	I don't find it important, no.  I think the packaging that would attract me would be like a funky design, but not too extreme. I want it to look natural since it's supposed to mimic a 'natural' product. I don't like too many images, like photos.
Considering the average prices you listed earlier, do you buy more milk during discounts or sale?	Yes definitely. I think it doesn't expire that fast so I can just keep it.
Would you pay extra to drink plant-based milk outside, i.e., cafes or restaurants.	I rarely get coffee out – but when I do I get it with oat milk, paid or not.
What would be your maximum willingness-to-pay extra outside to get plant-based milk?	Maybe around 1 euro.

<p>For what do you purchase plant-based milk for?</p>	<p>I only purchase it to make coffee, I don't drink milk alone. However, when I make pancakes or cooking, I still buy cow milk. No particular reason, but I just never tried it so I don't know.</p>
<p>What are your thoughts regarding the difference in consumption of plant-based milk alternatives between the current generation, i.e., Generation Z and past generations? What do you think are the reasons for any differences that there might be?</p>	<p>New generations consume more plant-based milk alternatives and proteins in general, and might have more reasons to do so, because of their knowledge regarding climate change and the environmental issues in general - because they're more aware than the older generations, in general.</p>
<p>What kind of marketing strategies, i.e., marketing claims, advertising, aesthetic attributes on the pack, that might influence these older generations into consuming plant-based milk alternatives?</p>	<p>Probably anything different and changed from packaging, as it is more eye-catching and something that older people in older generations pay attention to.</p>
<p>Do you think these changes will influence us, as younger people, to consume more or less of the plant-based milk alternatives than the level we are at now - if those new marketing strategies for older generations are implemented?</p>	<p>Yes, not sure how though.</p>

<p>What kind of aesthetic attribute/features on pack would attract you into purchasing plant-based milk? This can include: colour, font, marketing text, etc.</p>	<p>Definitely more environmental-related colours, such as green, blue, or any marketing text that says something related to combatting climate change by purchasing this product.</p>
<p>What do you think these brands should do to increase awareness towards their consumers, about the extent of how environmentally friendly and sustainable these products are?</p>	<p>This could be increased through explaining how sustainable it is, through packaging development. Any text, bigger ones especially, will help in raising awareness and just spread information in general.</p>
<p>What do you think the attitude of the government should be towards the shift in demand from cow milk consumption to vegan milk in the Netherlands?</p>	<p>The government should be more supportive through different policies, I'm not sure exactly how, but definitely they should be more supportive and active in raising awareness through word spread.</p>
<p>Do you think if a product is locally produced in the Netherlands, it would increase your chance of purchasing it? Why or why not? What are your thoughts regarding this in terms of plant-based milk and regular cow milk?</p>	<p>No, not really.</p>

**Table B.4.**

Interview result with Interviewee Code: D on 26 June 2022

<b>Questions</b>	<b>Answers</b>
What does your typical weekly consumption of food look like?	Pretty balanced diet in the morning, make a cereal or avocado toast; afternoon and dinner I usually eat warm (foods). I am also a vegetarian, no meat for me.
What does your current diet look like?	I am a pescetarian, so I do eat fish.
What are your reasons to follow that diet?	For me, it first was about health, after reading into it I realised that it was healthier for your body to leave out meat. It also just feels better in general, so in terms of climate change and stuff like that. I started at the start of the pandemic, around 2020.
Do people around you follow your same diet?	Not really, there aren't that much vegetarian or pescetarian friends that I have.
How does your grocery shopping process look like?	I go myself two times a week to Albert Heijn.
Are there any (online) supermarket chains that you prefer, and why?	I prefer to go to Albert Heijn because they have better products in my opinion. Of course, it's a bit more expensive than other supermarkets, but I really like the vegetarian options and for instance, the fruits they have and the smoothies. I also tend to go to Jumbo because it's closer to my house.
Do you know what a plant-based milk alternative is? Can you define it?	Yes, I am aware of that. For instance, plant-based milk is like it's not really milk, but it is referred to as milk, because that's what vegans want to supplement what their normal milk intake with. It's like milk made out of oat or coconut, but there are many other types of milk. Or just like with plant-based meat or fake meat or chicken, all that kind of stuff, which is made out of tofu or some other grains.
Do you drink plant-based milk? What brands and	Yes, I do. When I'm buying it, I always buy plant-based milk, but when I'm out at a coffeeshop or a restaurant, and I order

<p>flavours/type do you drink?</p>	<p>coffee and they don't have plant-based milk, I take normal milk too and that's OK.</p> <p>I use Oatly, sometimes Alpro, but that's not my favourite one, that's it. I only use the normal one, because I don't use the barista line because I'm not sure what the difference is with the other ones. I used to buy soy milk, but I don't like it anymore.</p>
<p>Any particular reason(s) you purchase these brands?</p>	<p>It sounds stupid (for Oatly), but I like the packaging, I think the packaging is more fun, so I buy the Oatly more.</p>
<p>What was the reason of why you first consumed plant-based milk?</p>	<p>I think I just tried it out because of the packaging, and I really like the taste of it. So, I tried it out, really liked it more than the Alpro, so I tend to buy it more than the Alpro.</p>
<p>Do you follow any vega diets? If not, why do you consume plant-based milk?</p>	<p>I think I started drinking plant-based milk after I turned pescetarian.</p>
<p>Have you consumed any other brands (before the one you are actively consuming right now)?</p>	<p>I tried several brands, you have all sorts like coconut or soy, but what made me stick to Oatly was just the taste. If I had the choice, I would not consume oat milk from Alpro and that brand is not really important for me, for the aspect of milk.</p>
<p>What are, if any, environmental concerns that motivate you into consuming plant-based milk?</p>	<p>I think, I don't want to say I know, but I think plant-based milk uses a lot or has a lot less footprint than normal milk, because of the cows having more CO2 emissions and in order to feed the cows, you need more grains than you would need for plant-based milk, at least that's what I heard. There are definitely some environmental aspects that I think of when buying it.</p>
<p>Do you read any claims about environmental values, i.e., logos, certification, etc. on the packaging that pushes you into purchasing it?</p>	<p>Since I'm pescetarian, my diet has really changed into eating more healthy things, and before I just buy what I like. They also have these nutri-scores on each food packaging, from A to D or F, and for me I would never buy B or C, and I always stick to the A-grade nutri-score.</p>

What is the average price of plant-based milk you purchase?	I have to be honest, I don't know. It doesn't really matter to me.
Would you or have you recommended the products that you consume to your friends or acquaintances?	Yes, definitely, for sure.
Do you have a maximum willingness-to-pay considering you also consume cow milk?	I think it costs around 4 or 5 euros, right? But I think, I mean 5 euros is a lot already, I think I would pay 4 to 4.50 euros maximum (for 1 litre.
If you were to go to a milk aisle in a supermarket, what would be the first thing you look at?	First thing I do is to look for the plant-based section, I would never go for the normal milk anyway. I'm very susceptible to the packaging, if the packaging looks fun or it has nice colours to it, and the colour of the packaging looks healthy, like blue or green, not like pink or red, so if it's a good colour, I would buy that one. It just has to look good. If I go for the Alpro barista one, I think it has a coffee and I think it looks delicious, so I don't know why I haven't bought that one yet.
Do you read any texts written on the packaging when you make the purchase?	Sometimes I look at the marketing claims, but not really the nutrition details.
Are you interested in the extent of how sustainable production, manufacturing, or the product itself is?	Yes, I would be definitely interested in learning about it, but I'm not aware of how the product is manufactured.
Logo knowledge	Logo A: It means that the packaging is sustainably source from trees or forest where the trees are constantly regrown, I guess. It's about the carton basically. Logo B: The nutri-score, that's a tricky one. Because I thought it's about how healthy the product is just in general, but it's a



	<p>comparison, for example if Oatly has B or A, it is healthier than the other (oat) drinks that are the same type.</p> <p>Logo C: I don't know that one.</p> <p>Logo D: It means that it's vegan, like it's OK to eat for vegans</p> <p>Logo E: I don't know that one.</p> <p>Logo F: I also don't know that one.</p> <p>Logo G: I guess this one mean that it's recycled?</p> <p>Logo H: Also this means that the product is vegan.</p>
Considering all the logos you just saw; does it help you purchase the product more? How important are these logos for you when making a purchase?	I would say out of the 8, at least half I didn't recognise; so, if they were standardised and made universal, if everything were given a rating from one to five, then I would be influenced. But if there are so many different ones, it's quite hard to keep track of. But the nutri-score, A to E for example, that one I would look at. And the logo that says if it's vegan or not.
Considering the average prices you listed earlier, do you buy more milk during discounts or sale?	When they are on sale, I definitely buy more. I'm a student so I take a lot of deals. I also buy depending on my consumption.
Would you pay extra to drink plant-based milk outside, i.e., cafes or restaurants.	Yes, I would.
What would be your maximum willingness-to-pay extra outside to get plant-based milk?	My maximum will be around 1 euro to pay extra.
What are your thoughts regarding the difference in consumption of plant-based milk alternatives between the current generation, i.e., Generation Z and past generations?	Obviously, younger generations are more into plant-based alternatives than older ones. Personally, I wish that the whole society would take a moment to think about their consumption and how it impacts the planet and animal-wellbeing. However, I do understand that the older generations are not so much into this development and are not really keen on changing their consumption. I cannot blame my parents or grandparents if

<p>What do you think are the reasons for any differences that there might be?</p>	<p>they don't like plant-based milk or are not seeing the need to change their diet, but I am happy about the change in the younger generation.</p> <p>The reason, as for the difference between now and past generations, in my opinion, is the growing understanding of how our consumption affects the planet and animal well-being. Consumption now of plant-based products is higher than ever because it's considered hip (I guess?). Of course, this also has to do with the heavy advertisements and promotion of those on tv and social media, which are targeted towards current generations.</p>
<p>What kind of marketing strategies, i.e., marketing claims, advertising, aesthetic attributes on the pack, that might influence these older generations into consuming plant-based milk alternatives?</p>	<p>Show the health benefits and make a statement on how it will affect the environment as it will benefit the younger generation, e.g. their own children. Cow milk was always advertised as a strong-making potion with increased health benefits and stronger bones. Studies have shown that what we've been told is not true and that heavy dairy consumption can lead to many issues such as heart diseases or cancer.</p> <p>I think that these facts would make the best impact on the older generations.</p>
<p>Do you think these changes will influence us, as younger people, to consume more or less of the plant-based milk alternatives than the level we are at now - if those new marketing strategies for older generations are implemented?</p>	<p>Older-generations getting into plant-based alternatives will only be beneficial for the industry. If older people drink plant-based milk as a regular drink, it will ultimately flow down to their children.</p>

<p>What kind of aesthetic attribute/features on pack would attract you into purchasing plant-based milk? This can include: colour, font, marketing text, etc.</p>	<p>Bright and noticeable colours, but not red or any colours associated with 'foulness' (like brown, dark green or sth like that).</p> <p>Big fonts and explicative yet understandable statements on the box. It should draw attention of people of any age.</p> <p>I personally am drawn to a box with blueish/green bright colours, creative markings, and big bold statements on the packaging. The quality labels/certifications are also a plus.</p>
<p>What do you think these brands should do to increase awareness towards their consumers, about the extent of how environmentally-friendly and sustainable these products are?</p>	<p>Just simple marketing. Have supermarkets cooperate with the brands and make special aisles or more attention drawing shelves. Make advertisements with simple facts about how these products impact the environment and someone's footprint.</p>
<p>What do you think the attitude of the government should be towards the shift in demand from cow milk consumption to vegan milk in the Netherlands?</p>	<p>The dutch dairy industry has received millions the past recent years in subsidy for the low prices on milk and for expensive advertising campaigns in order to limit the decline in dairy products. That's just awful in my eyes.</p> <p>I support the new implied laws around the farming industry the dutch government has taken into effect. However, the government should hint more towards the making of plants-based products as a new opportunity for farmers to grow a business in. Right now, they only say that farmers should reverse expansion to reduce greenhouse emissions with no real solution to the problem.</p> <p>Additionally, the government should subsidies/lower taxes on the production and selling of plant-based products.</p>

	(Maybe they should set the examples themselves by offering plant-based cappuccinos in the government buildings) just a suggestion
Do you think if a product is locally produced in the Netherlands, it would increase your chance of purchasing it? Why or why not? What are your thoughts regarding this in terms of plant-based milk and regular cow milk?	Yes. People are more drawn to local produced products anyways. I would personally prefer Dutch almond milk over almond milk imported from all the way from Brazil for example. I would also then know that the products has been produced under strict dutch quality assuring laws.

**Table B.5.**

Interview result with Interviewee Code: E on 27 June 2022

<b>Questions</b>	<b>Answers</b>
What does your typical weekly consumption of food and beverages look like?	On a daily basis, I usually eat breakfast at home. My groceries come from the Lidl, so every two, three weeks, I usually buy what I need for the coming (2-3) weeks. For breakfast I usually make oatmeal or yogurt with fruit, or from time to time, I would make eggs with avocado on toast. I usually stick to that three for breakfast. For lunch or dinner, depends. If I'm at home or outside, or at work. If I'm home, I usually eat some crackers with cheese, ham; sandwiches, salads, because I like to get a lot of vegetables and foods with a high level of protein like lentils or beans. I usually cook those in a pan for dinner and make more for some other time in the week. Days where I'm working, I usually get lunch provided at work, which is usually a sandwich for lunch, and dinner it could be anything off the menu, like pasta, hamburger, steak, salad, could be anything. Sometimes I also eat out, or buy something from Spar, or order in if I don't have the energy to go out (to the supermarket).
What does your current diet look like?	I'm not necessarily a vegetarian, but I follow more vegetarian diet. But if somebody has meat, or we are eating out, sometimes I eat chicken or meat, or for example at work, I never reject meat. But if I'm grocery shopping, I never buy meat, I always buy plant-based alternative. I always stick to purchasing vegetarian options at the grocery store. But I'm not 100% vegetarian.
What are your reasons to follow that diet?	For myself, I do like meat, and different kinds of animal-based products, but within my budget, I can also get a good-buy for plant-based alternative, which is sometimes a lot cheaper. I like eating and making them, but at work, I don't reject them because I work for it. It does come down to the cost and

	<p>preference. I sometimes do buy shrimps because I love shrimps, even if it's a bit expensive. I also like to order chicken. But in the end, it comes down to preference and my financial position at the end.</p>
<p>Do people around you follow your same diet?</p>	<p>I think it's solely based on my personal preferences because there are not a lot of people around me that follow the same. But when I lived back home, my mom used to cook a lot of vegetables, so that's how I got that kind of from her. She combines meat and vegetables. But now my roommates prefer meat-based a lot more, so I do get that from living with my mom and took that over now.</p>
<p>How does your grocery shopping process look like?</p>	<p>A bigger shopping trip every 2 to 3 weeks.</p>
<p>Are there any (online) supermarket chains that you prefer, and why?</p>	<p>I like Lidl, I also do go a lot to Albert Heijn because it's convenient, right next to my gym or on my way home from work. If I do need a quick shopping trip, if I have nothing at home or I need some essentials, it's easier to access. I also like Picnic, the online grocery store that delivers it at home. I've used it a few times, the prices are close to Lidl. The only inconvenient thing is that it delivers later in the week, and if I need it now, Picnic wouldn't be able to deliver it then, so I usually make time to go to the Lidl and just go there and do a big haul because I get busy during the week.</p>
<p>Do you know what a plant-based milk alternative is? Can you define it?</p>	<p>Yes, to me a plant-based milk alternative is when it doesn't come from a cow; they have oat, coconut, almond, soy, and so on.</p>
<p>Do you drink plant-based milk? What brands and flavours/type do you drink?</p>	<p>I actually only drink plant-based milk. I have now soya milk in the fridge. I usually just buy home brands, so Lidl or Albert Heijn home brands.</p>
<p>Any particular reason(s) you purchase these brands?</p>	<p>Price, I think it comes down to just price. The flavour doesn't differ as much as the Alpro one, so I just buy the cheaper one,</p>

	<p>as it tastes the same, and it comes down to if it's soya milk. Sometimes I change between oat, almond, and soya.</p>
<p>What was the reason of why you first consumed plant-based milk?</p>	<p>I think I was at a friends' house; at home I would always drink cow milk since my mom never buys plant-based milk. So, when I go to my friends' house that's lactose intolerant, and I used to go to her place a lot, and we would have coffee with plant-based milk, and I realised I liked it a lot more. As I got older, I would buy it more for myself, I liked the flavour and how you feel after you consume it more than cow milk. So I decided to buy it for myself, and now I live alone, I only buy plant-based milk.</p>
<p>Do you follow any vega diets? If not, why do you consume plant-based milk?</p>	<p>I think I just figured that it's the one I liked, and I just kept consuming it. In general, I like eating healthy and I lean towards the vegetarian side, so I do like the fact that it helps the environment – even if it's not the main reason – I do kind of take that into account, which makes me not want to switch back to cow milk.</p>
<p>Have you consumed any other brands (before the one you are actively consuming right now)?</p>	<p>I sometimes have oat milk; I like them sometimes. What I tried in the beginning is what I consume now. In terms of brands, I really like the home brands. But for Alpro, if it's on sale, I would get it, especially for the barista ones. I think they all taste pretty the same, so there isn't anything I'd refuse to buy. It's anything that falls within the price range.</p>
<p>What are, if any, environmental concerns that motivate you into consuming plant-based milk?</p>	<p>Something that touched me was the fire at the Brazilian rainforest in 2020, since one of my close friends is from there. She explained to me the urgency of the situation and how devastating it was. It opened my eyes a bit more, and how it's happening so close to someone's home. But as a student, it comes down to time, price, and preference. But I also consider how what I'm purchasing helps the environment. I'm completely happy of how and what I purchase (in terms of milk).</p>

<p>Do you read any claims about environmental values, i.e., logos, certification, etc. on the packaging that pushes you into purchasing it?</p>	<p>Last week I bought this nature almond milk from the Albert Heijn. It was on sale, so it was the first thing that caught my eye. But, then the packaging was really eco-friendly, so that was something I like. If I see it's made from recycled plastic or something like that. Sometimes they also donate to deforestation fund, and this one had that, it looked really environmental-friendly and had a lot of plants, which caught my eye; and it was more interesting than general home brands which had really plain and basic packaging. So, I think, as a change, it looked fun so I would look for milk packaging that is more exciting. Not sure if the marketing is true, if so, then I did buy it because of the packaging.</p>
<p>What is the average price of plant-based milk you purchase?</p>	<p>I think around 80 to 90 cents, up to 1 euro depending on the store.</p>
<p>Would you or have you recommended the products that you consume to your friends or acquaintances?</p>	<p>Yes, I definitely recommend them a lot to friends. My family doesn't budge in their eating choices anymore. But to my friends, yes. It is also better for you and the environment compared to cow-based milk.</p>
<p>Do you have a maximum willingness-to-pay considering you also consume cow milk?</p>	<p>I usually do always know what I need or want to buy, which is my standard soy milk. I also always like to look around and see what they have that's new, so the one I just mentioned, but just the nature packaging was new. They are starting to have different combinations, new flavours, which are really exciting. For example, chocolate soy milk or banana oat milk, but of course I first of course always buy what I want to buy, but I keep the others in mind for another time for when I want to mix it up with my smoothie.</p>
<p>If you were to go to a milk aisle in a supermarket, what would be the first thing you look at?</p>	<p>N/A</p>



<p>Do you read any texts written on the packaging when you make the purchase?</p>	<p>Definitely the nutrients are really important to me. I do want to know what I put in my body, for example if it has a high level of protein, or the protein is higher than the sugar, or not too high in calories, even if I don't count my calories. I just want to make sure it's not too high for a milk or has a lot of artificial stuff in it. I don't necessarily look at production or manufacturing. But I do want to know how they help the environment, especially through the packaging. That makes me lean more towards it rather than how they produce or manufacture the milk itself.</p>
<p>Logo knowledge</p>	<p>Logo A: I've seen it before but I don't know what it means.  Logo B: It's the nutrition aspect of it. A being best, and E being the worst.  Logo C: I don't know that one.  Logo D: It means that it's a vegan product.  Logo E: No, I haven't seen this one.  Logo F: I've seen this one but don't know what it means.  Logo G: Something about recycling?  Logo H: Vegan certified product from the EU.</p>
<p>Considering all the logos you just saw; does it help you purchase the product more? How important are these logos for you when making a purchase?</p>	<p>I think definitely some of them can make it or break it, like the nutri-score, like if everything else points the product to being a good milk, but it has a nutri-score of E; then I would really question everything on the packaging. But if the other ones have the vegan logo to just reinforce it, I will also just buy it even though it doesn't have the logo on it.</p>
<p>Considering the average prices you listed earlier, do you buy more milk during discounts or sale?</p>	<p>I think around 1 euro would be a maximum, but if I do want to try for a different kind, I would go up to 2 euros.</p>
<p>Would you pay extra to drink plant-based milk outside, i.e., cafes or restaurants.</p>	<p>Yes, usually I do. I like to switch to milk alternatives. But a lot of cafes now takes away that extra couple of cents, so now I'm more lenient to switch to milk alternatives. I don't always do, but I do lean to soy, almond, or oat milk.</p>

<p>What would be your maximum willingness-to-pay extra outside to get plant-based milk?</p>	<p>Around 75 cents. If it was between 0 to 50 cents, I would go for it. If it was 75 cents, sometimes I take it but sometimes I consider not to as well.</p>
<p>For what do you buy milk (alternative) for?</p>	<p>The prime purpose is definitely coffee as I drink it every morning. For time to time I sometimes drink smoothies or make cereal with it.</p>
<p>What are your thoughts regarding the difference in consumption of plant-based milk alternatives between the current generation, i.e., Generation Z and past generations? What do you think are the reasons for any differences that there might be?</p>	<p>I think there is a substantive difference in consumption of plant based milk between different generations. From what I've witnessed, Generation Z seems more receptive and more actively seeks plant-based milk alternatives in comparison to past generations who generally seem to stick with cow milk. I think a great contributing factor is culture and tradition, especially the location and surroundings of one's upbringing circumstances. Past generations, in the setting I grew up in, did not have access nor were they greatly aware of plant-based milk alternatives - which I think played a key role in the difference in consumption of different milk kinds amidst the varying generations.</p>
<p>What kind of marketing strategies, i.e., marketing claims, advertising, aesthetic attributes on the pack, that might influence these older generations into consuming plant-based milk alternatives?</p>	<p>Perhaps highlighting the increased health benefits and greater nutrition value of plant-based milk alternatives can boost the willingness of past generations to consume more of this kind of milk. Furthermore, plant-based milk alternatives are a more climate-friendly option as well which could also have an impact on older generations purchasing it more readily, if marketed effectively.</p>
<p>Do you think these changes will influence us, as younger people, to consume more or less of</p>	<p>I think younger people already seem more aware of the positive benefits of plant-based alternatives. In that sense, I think they are more likely to purchase it as they seem more aware, on average, of both the health benefits and climate-</p>

<p>the plant-based milk alternatives than the level we are at now - if those new marketing strategies for older generations are implemented?</p>	<p>friendly workings of it. This is can be attributed perhaps through the current modern educational system or mass media and spread of information in today's digital age.</p>
<p>What kind of aesthetic attribute/features on pack would attract you into purchasing plant-based milk? This can include: colour, font, marketing text, etc.</p>	<p>Features such as colourful packaging, an exciting yet readable font, catchy phrases and pleasant illustrations make myself as a consumer more likely to purchase plant-based milk alternatives.</p>
<p>What do you think these brands should do to increase awareness towards their consumers, about the extent of how environmentally-friendly and sustainable these products are?</p>	<p>Setting central the environmental and climate-friendly benefits of the plant-based milk alternatives is of great significance I think. This can be done by emphasising this on the packaging by stating it boldly perhaps. Another manner could be by including this in spoken advertisements.</p>
<p>What do you think the attitude of the government should be towards the shift in demand from cow milk consumption to vegan milk in the Netherlands? Do you think if a product is locally produced in the Netherlands, it would increase your chance of purchasing it? Why or why</p>	<p>To be honest, I think that the location of production of any kind of milk I purchase is rather irrelevant. Other factors play a greater and more determinant role of my purchasing behaviour anyway, as I said before.</p>

not? What are your thoughts regarding this in terms of plant-based milk and regular cow milk?	
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**Table B.6.**

Interview result with Interviewee Code: F 6 on 6 July 2022

Questions	Answers
What does your typical weekly consumption of food and beverage look like?	A lot of iced coffee, especially because I work at a vegan food restaurant, where we have coffee – and my coffee is free at work, usually with oat milk. I also have a lot of kombucha drinks. Food wise, sandwiches, pasta, and salads. I don't eat red meat, maybe sometimes chicken. I don't eat fish often, although I would like to.
What does your current diet look like?	N/A
What are your reasons to follow that diet?	I don't like (red) meat, only chicken, because it's easy to cook. I don't tend to drink a lot of normal milk because my stomach gets upset by it. My body has gotten used to oat milk, so when I drink cow milk, it is not good.
Do people around you follow your same diet? Are you inspired by them?	I think so, my roommate is a Muslim, so we don't eat lot of bacon or pork in the house. I try to be considerate with her, so we never have that in the house. That definitely plays a big role. And as for oat milk, I tried it the first time because someone did offer it to me and a lot of people started drinking it. So, I eventually I tried it and I ended up liking it. It's easy to buy too because you don't have to immediately open it.
How does your grocery shopping process look like?	I go every couple of days, depends on what I want to eat that day. I'm not home a lot and I don't tend to buy a lot of food because they expire quickly, so I buy only for two or three days.
Are there any (online) supermarket chains that you prefer, and why?	I go Jumbo or Dirk because it's closest to my house. Sometimes I go to the Albert Heijn only for specific things. My roommate and I used to go to Dirk a lot because of more Halal options, but then we got lazy so we went to the closest one.

<p>Do you know what a plant-based milk alternative is? Can you define it?</p>	<p>I find plant-based milk really enjoyable and easy, however it is expensive. I only drink Oatly, where it is only oats and water, where some brands have added preservatives. I'm not sure about the others though.</p>
<p>Do you drink plant-based milk? What brands and flavours/type do you drink?</p>	<p>I purchase the Oatly brand for myself, the blue (normal) one. I will purchase the barista one if I own a frothier, but I don't, so I find it slightly useless to buy the barista. At work, we use a Dutch oat milk brand called ROA, it's relatively new actually.</p>
<p>Any particular reason(s) you purchase these brands?</p>	<p>N/A (see previous answer)</p>
<p>What was the reason of why you first consumed plant-based milk?</p>	<p>I think it was in the U.S., with a friend, and I quite liked it. I then told my mom to buy it in the Netherlands and I started liking it. I had to get used to it, like making pancakes, because it tastes a bit different in terms of flavour and consistency.</p>
<p>Do you follow any vega diets? If not, why do you consume plant-based milk?</p>	<p>I drink it because of flavours and health reasons, I have gotten so used to it – now it's automatic, so when I go to the store, I don't even look at other products anymore. My parents never have oat milk at home home, then I reconsider making coffee with normal milk which irritates me. I definitely would go a bit out of my way to buy it in order to consume my milk.</p> <p>I once told my grandma to consume it, and I think the same carton of milk is still there. This is because they don't consume it because they don't know what it is and they don't want to drink it, you know, from different generations.</p>
<p>What are your thoughts about the difference between the current and past generations, that is more used to consuming regular dairy products?</p>	<p>My grandparents fully didn't know that you can have a different type of milk. And I think here (in the Netherlands), it is very normal for everyone to drink plant-based milk, all my friends order their coffee with oat milk or soy milk, unless they are trying to be cheap. I think that's the biggest thing, the extra 50 cents, and if that were not there, everyone I know will switch to plant-based milk.</p>

<p>Have you consumed any other brands (before the one you are actively consuming right now)?</p>	<p>I think I tried Alpro oat milk. I think I didn't like it as much as Oatly and it was a bit expensive than Oatly. I don't like soy milk; the flavour isn't just for me. I also don't like almond and hazelnut, both I didn't like, really not for me.</p>
<p>What are, if any, environmental concerns that motivate you into consuming plant-based milk?</p>	<p>I knew especially with cow milk; it is not good because of the methane. Although, I'm not sure to what extent oat milk is better, I haven't done any research on it. Because I know a few of the other plant-based are not good for the environment. I can't remember which one, but I remembered looking it up once. Some plant-based milk still pollutes the rainforest and cut down trees, so that's a bit of the trade-off I guess.</p>
<p>Do you read any claims about environmental values, i.e., logos, certification, etc. on the packaging that pushes you into purchasing it?</p>	<p>With oat milk, it's very much if they have the added calcium, to make sure I still get the MB12, so that's important, that's what they have in normal milk. This is an additional ingredient or preservative that I do look for. Oatly also made a song that kind of made me aware of the brand a bit more. A slogan that I remember with Oatly is 'no cow'.</p>
<p>What is the average price of plant-based milk you purchase?</p>	<p>2 euros.</p>
<p>Would you or have you recommended the products that you consume to your friends or acquaintances?</p>	<p>Yes, I have to my parents, they tried once but they didn't stick to it. Although they said they will buy it in the end they don't buy it.</p>
<p>Do you have a maximum willingness-to-pay considering you also consume cow milk?</p>	<p>I think it costs around 4 or 5 euros, right? But I think, I mean 5 euros is a lot already, I think I would pay 4 to 4.50 euros maximum (for 1 litre).</p>
<p>If you were to go to a milk aisle in a supermarket, what would be the first thing you look at?</p>	<p>I really stick to one (product), I am not that open to purchasing other. But, if it's a lot cheaper, I do consider it but that's only because I have a student budget.</p>

<p>What kind of loopholes (i.e., marketing claims or advertising) do you think that these plant-based milk brands can try to explore to attract older generations?</p>	<p>Definitely something related to health, such as good for health, everyone nowadays worries a lot on health, like what you ingest in your bodies. Especially when you get older, they care more about cholesterol, or good for you heart. For example, my dad is very concerned about health, such as watching out for his cholesterol. So, it would be good to be put that in the front of the carton.</p>
<p>How do you think that would influence younger generations, i.e., 20-year-olds?</p>	<p>We definitely don't think as much about cholesterol and health concerns, but I think there will definitely be a trade-off between the two generations. I think right now these brands are aiming for younger generations, especially because they are already more easily influenced, whereas older generations are more set in their own ways and more resistant to change. If you influence the younger generations, they grow and change with you and it's more a long-term orientation.</p>
<p>Do you read any texts written on the packaging when you make the purchase?</p>	<p>I don't usually read it.</p>
<p>Are you interested in the extent of how sustainable production, manufacturing, or the product itself is?</p>	<p>I am very interested in it, but I haven't put that much effort into researching it yet.</p>
<p>How do you think it could be further developed for people that are more interested in the process and environmental side of these products?</p>	<p>Maybe more with advertising, but it can sound ingenuine. I think it's relatively hard, because you don't want their marketing to be 'we're so much better than everyone', or for their marketing to follow a trend, because then people started questioning whether they're educating and teaching people, or they are just trying to profit from it. I feel like anything that is mass produced is not the most sustainable anyway, but at the end it is relative sustainability for everyone. I also feel like the news should pick up more on it, but that's more of a government responsibility.</p>



<p>What do you think the attitude be of the government towards this shift of consumer demand of plant-based milk?</p>	<p>I'm not really sure what they're doing right now, but I feel like it's harder because we have a lot of cows here, so there's probably some politics involved, like the farmer's protest.</p>
<p>Logo knowledge</p>	<p>Logo A: I'm assuming it's good for the environment, and I see that a lot.</p> <p>Logo B: I see that a lot here in the Netherlands especially, but I think it's because of the nutrition and how much preservatives they have in the product, and how bad or good it is for you. I take this into account, except for fried things, because I know that it is unhealthy.</p> <p>Logo C: I don't know this one.</p> <p>Logo D: I'm assuming it means that it's plant based.</p> <p>Logo E: I don't know that one.</p> <p>Logo F: I also don't know that one.</p> <p>Logo G: Recycled.</p> <p>Logo H: Also, plant based.</p>
<p>Considering all the logos you just saw; does it help you purchase the product more? How important are these logos for you when making a purchase?</p>	<p>With some of these logos, especially the first and second one, I always try to check. But because most of these logos I see all the time, when I don't see it, I will question it.</p>
<p>Considering the average prices you listed earlier, do you buy more milk during discounts or sale?</p>	<p>Yes, I think I might. If there is a significant deal, then yes, but it doesn't really change too much. It also depends on the calcium level.</p>
<p>Would you pay extra to drink plant-based milk outside, i.e., cafes or restaurants.</p>	<p>Yes, I would, but it also depends on how my bank account is looking like. But if I had all the money in the world or if I was just paid, then yes, I would. Furthermore, at my work, we only have plant-based milk, so I started expecting other places to have free alternative as well.</p>

<p>What would be your maximum willingness-to-pay extra outside to get plant-based milk?</p>	<p>My maximum will be 50 cents. Between 0 and 25 I would definitely get it, and between 25 and 50, depends. It also depends on how much I'm already paying for it, so if its already 4 euros for example, I get less inclined to pay more.</p>
<p>For what do you purchase your plant-based milk?</p>	<p>I think 80% coffee, and sometimes pancakes. I think that's about it. I don't bake or anything. However, for <i>slagroom</i> or any cooking stuff, I still stick to cow products. Also applies to yogurt, I still do take the normal one, even though I know the plant-based brands have alternative yogurts.</p>
<p>Do you think colour, font, or any other aesthetic features on a packaging matter?</p>	<p>Definitely lighter colours, not dark, you want light and airy colours because you want the milk to be light and not a dense milk, since those colours associate with light and airy tasting of it. It's a plant-based milk, you don't want darkness in there, plants are all about light and since it's an alternative, you want to make it pop.</p>
<p>Do you think associations with locally produced products influences your decisions and other consumers' decision in purchasing milk (alternative) products?</p>	<p>Yes, it gives a sense of pride as well. Similarly with cow milk or vla for example, that's why a lot of older generations still consume it because they also grew up with it.</p>

**Table B.7.**

Interview result with Interviewee Code: G on 20 July 2022

Questions	Answers
What does your typical weekly consumption of food and beverage look like?	Well, it is not easy to say or how you define the weekly consumption, but I have about three big meals a day, as well as snacks in between. This is not set in stone though, it depends on the day, but this would be my benchmark. As for drinks, I know I do not drink enough. I even think I do not even pass 1L a day, and on the weekends I like to spoilt myself with some alcoholic beverages, where I might exceed the 1L.
What does your current diet look like?	I try to be pescetarian, meaning no meat but fish, but due to the eating habits of my boyfriend, I do eat meat now and then. On my own, I avoid this. I also try to include veggies and fruit for my daily vitamin and nutritional intake. This works pretty well for me, but I am not very strict.
What are your reasons to follow that diet?	I am just not a big meat lover, meat is just also way too expensive for student and it helps the environment. Also, red meat is bad for your body, thereof I can also just replace it with soy or something like that and thereof not only help my wallet, but also my body. Fish I do eat for the good fats.
Do people around you follow your same diet? Are you inspired by them?	Yes, ,my sister is a pescatarian, just like my best friend. And my roommate is a vegetarian, and has some vegan phases.
How does your grocery shopping process look like?	I make a list of dishes which I would like to prepare for the week and shop accordingly, trying to not exceed 35 Euros a week.
Are there any (online) supermarket chains that you prefer, and why?	Online, no. I do like Albert Heijn, just because it is premium. Normally, I like to go to Lidl because of the good quality-price ratio.

Do you know what a plant-based milk alternative is? Can you define it?	I know. It is milk (actually its not), which is lactose free, meaning it is not coming off of an animal and is being replaced by plan-based products such as oats, nuts, coconut or soy.
Do you drink plant-based milk? What brands and flavours/type do you drink?	I do. I like coconut milks the most. I love alpro.
Any particular reason(s) you purchase these brands?	Alpro just has a wide variety of milks, their collection is very varied. Also, I think they taste quite “real”, and get close to creating an actual milk taste.
What was the reason of why you first consumed plant-based milk?	First, because it became a trend online and within our generation (Gen Z). Also, because it is better for the environment and for the animals, and it has been confirmed several times, that actual milk is not needed at all for good taste. An Iced Matcha latte even tastes better with coconut milk than it does with actual milk.
Do you follow any vega diets? If not, why do you consume plant-based milk?	I do, it goes hand in hand.
What are your thoughts about the difference between the current and past generations, that is more used to consuming regular dairy products?	First, because it became a trend online and within our generation (Gen Z). Also, because it is better for the environment and for the animals, and it has been confirmed several times, that actual milk is not needed at all for good taste. An Iced Matcha latte even tastes better with coconut milk than it does with actual milk.
Have you consumed any other brands (before the one you are actively consuming right now)?	Yes I have consumed the cheap brands from Lidl, also I have consumed many PB-milks from cafes, of which I do not know their brands.
What are, if any, environmental concerns that motivate you into	Just the care for animals and water reduction.

consuming plant-based milk?	
Do you read any claims about environmental values, i.e., logos, certification, etc. on the packaging that pushes you into purchasing it?	This, I do not even look at because often I have a hard time understanding what these logos even mean.
What is the average price of plant-based milk you purchase?	A little above 2 euros. Depending on the store I go to. Lidl is way cheaper than e.g., Jumbo and Albert Heijn.
Would you or have you recommended the products that you consume to your friends or acquaintances?	I have, but many already use them.
Do you have a maximum willingness-to-pay considering you also consume cow milk?	I mean, I wouldn't really exceed the current prices. Like 2,50 is the maximum. Because it just feels like a double moral. You do something good for the environment and thereof society, but pay double the price.
If you were to go to a milk aisle in a supermarket, what would be the first thing you look at?	The variety of plant-based options, but to be fair, I also immediately look at the price differences to animal-based products.
What kind of loopholes (i.e., marketing claims or advertising) do you think that these plant-based milk brands can try to explore to attract older generations?	The creation of a better world for their grandchildren. I do not think that older generation realise how endangered the following generations are. If climate change keeps going on, the question one may ask is "How long do we still have?". Through advertising the ACTUAL consequences this might have for their loved ones, they might be able to be convinced to at least switch partially.
How do you think that would influence younger	It would influence, since we are the ones which are victims of climate change, not the old generations anymore.

generations, i.e., 20-year-olds?	
Do you read any texts written on the packaging when you make the purchase?	No.
Are you interested in the extent of how sustainable production, manufacturing, or the product itself is?	I am interested, yes. And I think in order to fulfil the vision of treating climate change through introducing such products, the only possible way, in order to not be hypocrite, is to actually produce sustainably. But, it is clear that often this comes with an extra price (if this is not the case, as said before, I actually do not know), and at some point it is just not affordable anymore.
How do you think it could be further developed for people that are more interested in the process and environmental side of these products?	N/A
What do you think the attitude be of the government towards this shift of consumer demand of plant-based milk?	The government has no other choice than to encourage it, cause it is the future.
Logo knowledge	A: yes B: yes C: yes D: no E: no F: Yes G: Yes H: Yes

Considering all the logos you just saw; does it help you purchase the product more? How important are these logos for you when making a purchase?	The vegan logo does. The rest is pretty useless to me, since I do recognise them and have seen them before, but do not now their actual value.
Considering the average prices you listed earlier, do you buy more milk during discounts or sale?	No I do not, I do not really care since my consumption as a single person is not that high, that I need to bulk during sale seasons.
Would you pay extra to drink plant-based milk outside, i.e., cafes or restaurants.	Yes, I already do that, but I was very relieved when I saw that Starbucks stopped charging more. I think this should be the standard. I pay more, not cause I want to, but just because I have to.
What would be your maximum willingness-to-pay extra outside to get plant-based milk?	No real benchmark. I think Starbucks asked 45 cents. This I paid more.
For what do you purchase your plant-based milk?	For coffee mainly, but also cook with it. Like use to for batters or for creamy sauces. They can be used for any kind of dish.,
Do you think colour, font, or any other aesthetic features on a packaging matter?	Yes it does, I feel like the plant-based milk have a way more luxurious and modern aesthetic to them, than the traditional milk. It gives me a more expensive and higher-quality feeling.
Do you think associations with locally produced products influences your decisions and other consumers' decision in purchasing milk (alternative) products?	Not necessarily. This is more a personal and familiar/friendly thing by whom I am influenced.