

TALLINN UNIVERSITY OF TECHNOLOGY

School of Business and Governance

Department of Business Administration

Peetro Sakki

CONSUMER ATTITUDE TOWARDS SUSTAINABLY PRODUCED

OAT PRODUCTS IN FINLAND

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Supervisor: René Arvola, PhD

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I hereby declare that I have compiled the thesis independently and all works, important standpoints and data by other authors have been properly referenced and the same paper has not been previously presented for grading.

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Peetro Sakki

(signature, date)

Student code: 183989TVTB

Student e-mail address: peetro.sakki@hotmail.com

Supervisor: René Arvola, PhD:

The paper conforms to requirements in force

.....

(signature, date)

Chairman of the Defence Committee:

Permitted to the defence

.....

(name, signature, date)

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ABSTRACT

The purpose of this research is to find out consumer attitudes towards sustainably produced oat products in Finland. Sustainability has become a crucial factor when it comes to consuming and deciding towards certain food products. Recently environmental, ethical, as well as health issues have shaped the consumers' behaviour and consumers' attitudes towards purchasing more sustainably. Every made purchase towards any product or a service, contributes to a consumption pattern. Every purchase has its own implication and hereby sustainable consumer behaviour is worth a study. The quantitative research method will be used in this research paper. An online questionnaire was conducted and send through different social media applications. The data was collected from the questionnaire and it was analysed using the descriptive statistics. The non-probability sampling and quota sampling methods were used. The main results of this research showed that consumers' are willing to change their attitudes and using purchasing power on the sustainable oat products. They are also willing to pay more for them.

Keywords: Consumer attitude, Sustainable consumer behavior, Sustainable oat production

INTRODUCTION

Climate change is one of the largest global concerns of our century and lifetime. It affects every society and every individual. It has to be taken seriously in every industry and consumers have a key role to play in the battle of climate change. Health scares and different concerns related to ethical and environmental issues have changed consumer behavior and their attitude towards purchasing sustainable products. The shift to consuming more sustainably has started but major changes have to be conducted in order to change our consuming habits.

We must acknowledge that our expansion in human population and increase in food production do come at a cost, often one that we are unable to calculate (Baldwin, 2009). Sustainability in food systems has become one of the main goals of our century around the world and during the recent years, sustainable food products have risen more and more popular among the consumers. That has appeared in consumer behavior. The market ratio of sustainable products is gradually increasing because environment pollution has increased consumers' concerns related to morality (Seo et al., 2016). Sustainability is clearly an important factor when it comes to consuming and attitudes towards food products. Every time someone makes a decision about whether (or not) to purchase a product or service there is the potential for that decision to contribute to a more or less sustainable pattern of consumption (Young, 2008). For a single human, climate change can feel hopeless due to its gigantic scale. Even though as an individual, you can still make a change with your personal choices while consuming and shopping 'greener'.

The relevance of oats and oat products have increased significantly in Finland and in 2020, the Finnish news reported that oats are more popular than ever. Since the oat is a trendy superfood which grows perfectly in cool weather and clean soil, the author is interested about the attitudes towards it. Oats and different oat products can be produced and grown with different ways. Oats can be grown in an organic way or in a conventional way. Both can include sustainable practices but organic production guarantees more sustainable and more environmental practices and hereby, can be called 'sustainably produced'. The differences between organic and conventional farming are covered in this research and in this research, sustainably produced oats are linked to organic

farming and production. Also, one important advantage of oats compared i.e. to soya is that is causing much less allergy and has become popular among consumers with different diets and certain food limitations. The importance of agricultural aspect is also explained in this study. The **research problem** is a lack of knowledge concerning the consumption of sustainably produced oat products. The research problem and its relevance comes from an on going trend in Finland regarding oats and oat products. As stated, oats are more popular than ever and it is mostly because oats contain a healthy nutrients and are good for many diets. The so called oat boom can be seen for example from the recent year's oat milk popularity. This **study aims** to find out consumers' attitudes towards sustainably produced oat products in Finland. Also, it aims to answer the following **research question**; what are the consumers' attitudes towards sustainably produced oat products?

The first chapter is focused on consumer attitudes and consumer behavior. It gives an insight of importance of attitudes as well as the structural models of attitudes. When the objective is targeted to sustainable food production, sustainable consumer behavior is discussed as well. Also, the author brings sustainable oat production to light in order to understand what is meant by it and what are the key takeaways towards that. The second chapter gives an explanation on the chosed research method. This chapter gives an insight for the reader on how the research was designed and how the data was collected. The later on data-analysis is also explained briefly. Methodological approach of this study was a quantitative method. The third chapter contains empirical analysis which includes the analysis of the research. It will show the results of this research through descriptive statistics. Discussion will be made eventually as well. The last chapter will conclude the whole research with its research aim, the main results and suggestions for the future studies.

The author would like to thank all the parties that have contributed to made this research possible. First of all, he would like to thank the supervisor who helped the author during the research process. He also expresses his gratitude to his family and close friends. Most importantly, he wants to thank the respondents of the online questionnaire. Without the results of the survey, it would not have been possible to obtain new perspectives and have enlightening discussion. Lastly but not leastly, the author wants to express his gratitude to the current situation where writing the thesis has been pleasant and peaceful while studying remotely.

1. THEORETICAL FRAMEWORK

This chapter will focus on consumer attitudes and sustainable consumer behavior. The importance and significance of consumer attitude is brought to light as well as the structural models of attitudes. This particular study is conducted in order to find the attitudes towards sustainably produced oat products. For that reason, sustainable consumer behavior has to be covered. Also, it tells what is meant by the sustainable oat production and what are the key takeaways towards that.

1.1. The role and importance of attitude

To attach great personal importance to an attitude is to care passionately about it and to be deeply concerned about it. There is nothing subtle about attitude importance, particularly at its highest levels: People know very well when they are deeply concerned about an attitude, and they know just as well when they have no special concern about one. In short, attitude importance is a belief that links an attitude to an attribute (Boninger *et al.*, 1995). Also, people have various reasons to obtain a certain attitude towards something. Every human being holds thousands of attitudes, including those about family and friends, political figures, abortion rights, terrorism, preferences for music, and much more. Each of our attitudes has its own unique characteristics, and no two attitudes come to us or influence us in quite the same way (Jhangiani *et al.*, 2014). Attitude importance is a subjective judgement about or perception of one's attitude towards an object (Boninger, Krosnick, Berent & Fabrigar, 1995). Specifically, it is the extent to which a person is concerned with and cares about a particular attitude that he or she holds (Krosnick, 1989). For example, we say that there is a person who is deeply concerned about the meat industry and its ethical factors, we can assume that this attitude is high in importance for him/her.

When we express our attitudes – we are expressing the relationship (either positive or negative) between the self and an attitude object. Attitudes are an important part of the self-concept to the attitude object, and so our attitudes are an essential part of “us” (Jhangiani *et al.*, 2014). What are the reasons for caring about a certain attitudes and leaving the other attitudes completely alone? According to the empirical research conducted in 1995 by Boninger, Krosnick and Berent, three determinants of attitude importance were made. These are:

- Self interest
- Social identification
- Value relevance

The self-interest described; an attitude may become important to individuals who perceive it to be linked to their material self-interests. Self-interest-based importance develops when a person perceives an attitude to be instrumental to one's tangible rights, privileges or lifestyle. At second, basis for an attitude to become personally important is social identification with reference groups or reference individuals. This may occur in a number of ways. The third and the last determinant is described as following; an attitude may become personally important to an individual if he or she comes to view the object as relevant to his or her basic social and personal values. A value is an abstract belief about how (people) ought or ought not to behave, or about some end-state of existence worth or not worth attaining (Boninger *et al.*, 1995). Importance is consequential precisely because of its status as a belief: Perceiving an attitude to be personally important leads people to use it in processing information, making decisions, and taking action (Boninger *et al.* 1995). To attach personal importance to an attitude is to commit oneself to think about the object, to gather information about it, to use that information as well as one's attitude in making relevant decisions, and to design one's actions in accord with that attitude. In contrast, attitude importance is not defined in terms of links to the self. What distinguishes attitude importance from these other constructs is that it is defined as a subjective sense of significance and caring that is attached to an attitude (Boninger, Krosnick, Berent & Fabrigar, 1995). Attitudes vary in the degree to which shapes cognition and behaviour. Also, personal importance. Important attitudes are those that individuals attach personal importance to and care deeply about. Across a range of settings these attitudes have been shown to be more powerful than unimportant attitudes in determining perceptions of other attitudes (Krosnick, 1989).

1.2. Structural models of attitudes

Human beings hold attitudes because they are useful. Particularly our attitudes enable us to determine, often very quickly and effortlessly which behaviours to engage in, which people to approach or avoid, and even which products to buy (Jhangiani *et al.*, 2014). Psychologists and

researchers have constructed different models that are capturing different dimensions of attitude and are also primary for different attitudes. For example, companies and marketers especially seek for a clearer and better understanding of consumers' attitude in order to gain profit for their product or a service. Attitudes are very complex and they vary a lot within a consumer. For that reason, different attitude models have had to be created. These models have been constructed in order to understand an attitude but also, to prevent a certain behaviour. In below, we are going to cover two specific models of an attitude which are different from each other but can be familiarized towards the research topic.

1.2.1. Tri-component model of attitude

The tri-component attitude model argues that attitude includes three components, namely cognition (a thought), an affect (a feeling), and behaviour (action) (Pickens, 2005). In other words, this model is defining how people look and act on certain situations. The tri component attitude model is also known to carry the name of ABC's of attitude. The letter a stands for affect, b stands for behaviour and c stands for cognition. You may call it with either name, but the three components remain - thinking, feeling and doing. Social psychologists (as well as advertisers, marketers, and politicians) are particularly interested in the behavioral aspect of attitudes. It is normal that the ABC's of our attitude are at least somewhat consistent, our behaviour tends to follow from our affect and cognition. Although most attitudes are determined by affect, behaviour, and cognition, there is nevertheless variability in this regard across people and across attitudes. Some attitudes are more likely to be based on feelings, some are more likely to be based on behaviors, and some are more likely to be based on beliefs (Jahnigiani *et al.*, 2014).

1.2.2. Multi-attribute attitude model

Multi-attribute model is not just one model that is trying to explain certain attitudes or behaviours. Instead, it is a model which includes a set of a different and specific attitude models. The broad picture of multi-attribute model can be explained as a model that provides certain guidelines that can be taken into account if measuring consumers' attitudes towards specific products and services.

A multi-attribute object (e.g. product or brand) is viewed as a bundle of attributes leading to costs and benefits of differential desirability to individuals or segments of the market. Overall affect is posited to reflect the next resolution of an individual's cognitions (beliefs) as to the degree to which given objects possess certain attributes weighted by the salience (importance) of each attribute to the individual. Given that the marketing manager can control to some extent the physical characteristics and associated images of his or her brand, careful assessment of cognitive structures offers a natural approach to formulating important aspects of a marketing strategy (Wilkie & Pessemier, 1973).

1.3. Sustainable consumer behaviour

The solution to sustainability issues is often considered as being driven by product innovation. If products and services would become environmentally-friendly, sustainability would no longer be an issue. However, there are several problems with this view. For example, environmental friendliness often requires high levels of investment, political support, consumer acceptance, and willingness to pay (Antonides, 2017). Consumers have, through their food choices, a major role in bringing about more sustainable food production (Grunert, 2011). Consumers play a vital role in making food industries and chains more sustainable. By choosing what to eat while making a purchase, consumers are leaving a major impact on food and its origin. By conducting a demand on certain food products, you are given the option to vote on which foods are being produced and how they are produced. Different regulations can change the way that food is being produced, but at least at the moment, market and its force is the main driver on food choices. Given the high number of product innovation failures, the study of consumer behaviour seems vital in guiding the direction of product design and policy measures aimed at stimulating sustainable behaviour (Antonides, 2017).

When consumers buy food, the chain of impacts on sustainability has not finished. How consumers buy, transport, store, prepare and dispose of foods affects sustainability. Consumers food choice is a break point in the chain. Consumers can reward more sustainable food production by their choices, and at the same time punish less sustainable alternatives. More sustainable alternatives, if not enforced by regulation, need to stand the market test whether consumers prefer them over less

sustainable alternatives (Grunert, 2011). Being positive towards sustainability at the abstract level and buying a less sustainable food product are not necessarily contradictions. First of all, and most fundamentally, sustainability has to be communicated. Sustainability is a credence characteristic of food products, it can not be seen or tasted. If a food product has been produced in a more sustainable way, this has to be communicated on the food label (Grunert, 2011). This calls for an eco-labelling. There are a variety of eco-labels on food products. Usually they cover an aspects such as organic, environmental friendliness, fair trade etc. Different concepts of sustainability.

The following view on sustainable consumer behaviour is focusing on the micro view. There has been a qualitative study which has explored several typologies of sustainable food consumers. This study was called, *Making Sense of Sustainability: A Practice Theories Approach to Buying Food*. The typology is based on several criteria, one which is the people and motivations involved in acquiring the practice of buying sustainable food. These might include, for example, parents focusing on healthy diets, friends focusing on environmental concern, or exogenous factors such as living abroad or enrolment in environmental associations. Another criterion concerns the way consumers are engaged in sustainable consumption – for example, by focusing on health, quality of food, or ethics involved in sustainable purchases. The third criterion involves the degree of commitment of sustainable consumers, in knowing, questioning, or pushing their limits. The fourth criterion relates sustainable food consumption to other sustainable consumption, including recycling, saving energy, transportation, etc (Antonides, 2017).

Even though sustainability is an abstract concept with various definitions, many consumers think sustainability is a good thing. And even when they may be wary about the concept of sustainability, they may have a positive attitude to central components of sustainability, like environmental production. So there should be a good basis for developing and marketing products that are positioned as the more sustainable alternative (Grunert, 2011).

1.4. Sustainable oat production

Oat is a well known annual crop in temperate climates. It is recognised as a healthy food containing significant amounts of soluble dieletic fibre. The dietary fibre complex of oat grain with its antioxidants, minerals, B-glucan, vitamin E, polyunsaturated fatty acids and other phytochemicals

is effective against different chronic diseases and disorders in humans. With all these bio-significant substances oat in human diet considered as beneficial for human health (Sterna *et al.*, 2016). Oat can be described as a nutrition bomb.

In Finland, oats have gathered a unprecedented popularity. Consumption of oats has more than tripled in ten years. In 2019, the oat consumption rose by almost 30 per cent and per capita amount was 9.5 kilograms consumed according to Luke's recently published nutrition report. Even though oat flakes (oatmeal) are still the most important oat product, oats are increasingly used as alternatives such as milk and meat. New oat products are constantly appearing on store shelves and new innovation of oat production is introduced. The increase in demand for oats is often driven by the desire to add plant-based products to the diet and especially for the environmental reasons (Karikallio, 2020).

When we consider sustainable oat production, we must bring to light different ways of producing it. This means bringing out the differences between organic and conventional farming and really bringing differences of growing the crop. The importance of agricultural aspect is hereby necessary in this study. It is known, that consumers' are appreciating the aspects of environment, nutrition and healthiness in organic products. According to the Agrifood Research Finland (MTT), organically and conventionally produced oats are almost equivalent when it comes to the nutritional content. This points out the fact, that both conventionally and organically produced oats are competing in nutrition and the health factor does not differ from each other. We have to keep in mind the fact, that consumers' value organic products in addition to health, environmental friendliness and ethics quality. According to the Finnish Food Safety Authority (Evira), the aim of organic production is to produce a wide range of foods which meet consumers demand for commodities whose production methods are not harmful to environment, plants or animal health and their welfare. From organic raw materials to organic food, at least 95 per cent is organically produced. Only five per cent of raw materials can have conventionally produced raw materials of agricultural origin. These are specifically defined in an EU regulation or in the production guidelines of the Finnish Organic Association. The organic logo of EU, can be found on products that have fulfilled strict conditions on how they must be produced, processed, transported and stored. Organic farming contributes positively to agro-biodiversity and natural biodiversity (Mondelaers *et al.*, 2009). With organic farming the raw material (oats) has been grown with environment in hand and can be guaranteed. Sustainable agriculture seeks for the integrated use of

a wide range of pest, nutrient, agroforestry, soil and water management and their technologies (Pretty *et al.*, 1996).



Figure 1. EU organic logo.

Source: The official website of the European Union

The influence of conventional agricultural production on ecosystems has been widely documented. In Europe, especially since the 1950's, increase in use of external input factors, e.g. fertilizers and pesticides, has resulted into significant increases in productivity, but simultaneously in a higher environmental pressure (Mondelaers *et al.*, 2009). Agricultural reliance on synthetic chemical fertilizers and pesticides is having serious impacts on public health and the environment. Other aspects of conventional agriculture also have adverse effects on environmental and human health, as well as a high price tag (Pimentel *et al.*, 2005). The better use of available biophysical and human resources are the basic challenge's for sustainable agriculture. This can be done by minimising the use of external inputs, by optimising the use of internal resources, or by combinations of both. This also ensures the efficient and effective use of what is available, and ensures that any improvements will persist, as dependencies on external systems are kept to a reasonable minimum.

Organic agriculture is of particular interest with regard to healthy, ecologically fiendly produced food, because inputs of chemicals such as synthetic fertilizers and pesticides are not allowed (Mäder *et al.*, 2007). Conventional agriculture on the other hand allows the use of synthetic fertilizers and pesticides. Although oat farming in general does not drive i.e. deforestation and when comparing to other crops, it does not require large amounts of water. Hereby, you could say that any practice of growing oats is more sustainable when comparing them to other crops and plants. The relation between the agricultural system and the environment is complex (Mondelaers *et al.*, 2009).

2. RESEARCH METHOD

This chapter will go through the information regarding the methodological part. The author will describe the used research method. This chapter gives an insight for the reader on how the research was designed and collected. Also, it gives an insight how the research was analyzed later.

2.1. Research Design

This study aims to find out consumers' attitudes towards sustainably produced oat products. Methodological approach of this study was decided to be the quantitative method. The use of descriptive statistics and number of respondents required the use of quantitative method. When the data collection aims to be relevant and giving as wide picture of consumers' attitudes as possible, the quantitative method is proven to be the most effective. When measuring the share of consumers' and their behaviour, it would be hard to use qualitative method. Also, the quantitative method has certain advantages such as its accuracy, objectivity and relatively quick way to obtain a large amount of information.

The online questionnaire was selected as a research instrument. The questionnaire was conducted in order to receive answers concerning consumer attitudes. The questionnaire was made in internet, using the platform of Google Forms based on its convenience and applicable features. The questionnaire consisted of 16 questions which were; multiple-choice questions, likert-scale questions, open-ended questions and lastly, interval scale questions. The questions were formed in order to give a clear picture of consumers' different attitudes towards sustainably produced oat products. In the questionnaire, the sustainable consumer behaviour and sustainable oat production are widely covered. Environmental concern of the consumer is covered as well as the concerns related to food industry. Different attitudes relating to consumers willingness to purchase sustainable oat products are measured and asked as well. The respondents are also given a variety of options to vote on – factors that affect purchasing. The author decided to divide the questionnaire into three separate categories in order to achieve thorough picture of consumer attitudes and also, to maintain the interest of answering with the participants. The first two

questions were concerning consumers' demographical information. The difference of gender and age gap were asked. The third question was targeted to Finnish residents. This was conducted only because the author is interested to obtain a target audience from Finland. The next six questions were about consumers' own knowledge from the topic and past purchasing experiences. These nine questions formed the first section of the questionnaire. The second part of the questionnaire consisted five questions which were related to consumers' behaviour and consuming habits. For example, the factors that would drive the consumer towards purchasing more sustainably produced oat products and the tendency to pay extra for sustainably produced oat products were asked. The last and the third part of the questionnaire consisted two questions. These were asked in order to get the current state of mind of the consumer regarding the research topic. These two questions were asking about consumers' beliefs and future expectations towards sustainably produced oat products. The language of this questionnaire was English. Marketing research can be relatively accurate, relatively fast, and relatively inexpensive. Also, when conducting a survey, the initial design issues relate to questionnaire and data collection method which are intertwined (Hyman & Sierra, 2015).

The author selected non-probability sampling technique to be used in this study. This technique was selected due to the fact, that the study was conducted in internet and shared through the social media channels. That also drove out the possibility to use the probability sampling. The non-probability sampling method is also an inexpensive way to collect the required data. Quota sampling was taken into account in order to determine the amount of respondents and their gender. As mentioned, the descriptive statistical approach was used in this study in order to examine the answers and results from the questionnaire.

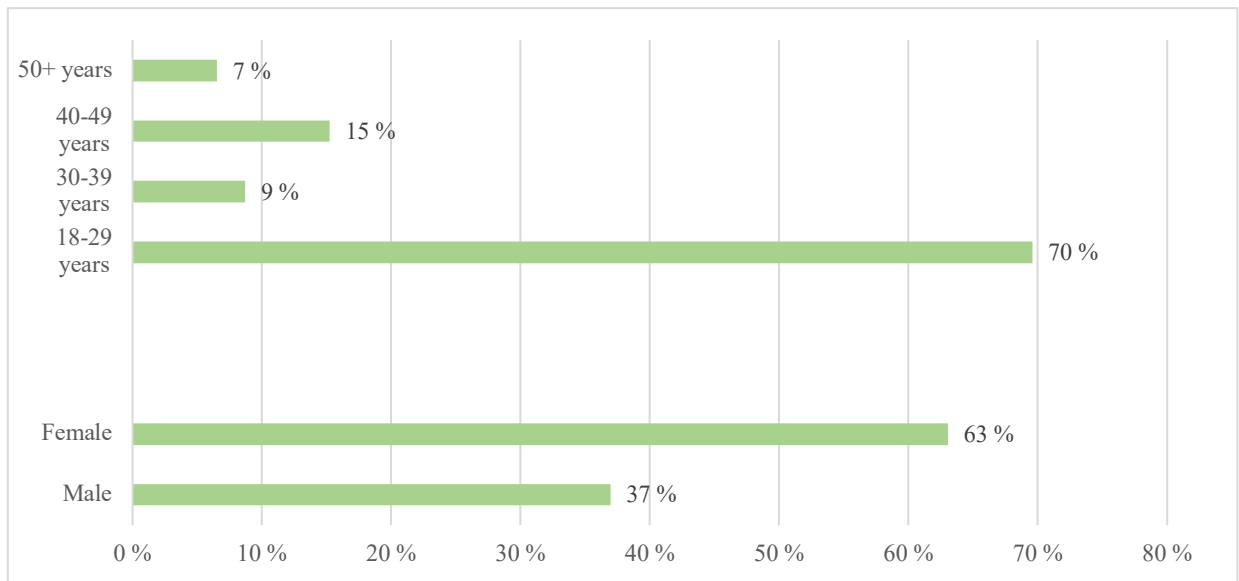


Figure 2. General characteristics of the respondents. n=91

Source: Composed by the author

This chart is composing the demographics of the questionnaire. The online questionnaire was shared through social media channels in order to get variance to the age and also, spread the questionnaire equally between males and females. 63 % of the respondents were females and 37 % were males. All in all, this means the total of 57 females and 34 males. The other demographical part presents information regarding the respondents age. 70 % of the respondents were from age 18-29 years which clearly was the majority. From 30 to 39 years old the percentage was 9 % and from 40-49 years, the percentage was 15%. The last age group was set out to be 50 years old or more and the percentage in that was 7 %. There were no under 18 year old respondents.

2.2. Data collection and analysis

The data collection was conducted and collected through different platforms in social media. With using different platforms, the author wanted to make sure that wide range of respondents and different demographics and all their viewpoints were collected. The author shared the link of his online questionnaire through two different applications of social media which were; WhatsApp and Facebook. The data collection's time period lasted from 16th of April 2021 to the 19th of April 2021. The total time period for data collection hereby lasted for four days. The collection period was very efficient as well as effective and it provided the total of 91 responses. As mentioned, the

descriptive statistics are used and in order, the author used MS Excel as a analysis method. By using the MS Excel programme, the author is capable in providing the results in a clearer representation. Also, visually readable. In the data analysis the charts composed in MS Excel are brought forwards and they are described in detail. The author goes through every chart.

3. EMPIRICAL ANALYSIS

This chapter will go through the results and analysis of the research. It also includes the discussion part. At first, the results are described and the charts are brought forwards. The author has composed the charts in MS Excel in order to them being clear and visually readable. The second part includes discussion from the received results.

3.1. Results and analysis

The online questionnaire consisted different questions in order to find out consumers' attitudes towards sustainably produced oat products. The questions were formed in order to give a clear picture of consumers' attitudes.

After the demographical questions, residency of the respondents were asked in the third question. The author was interested to obtain his target audience from Finland and due to that reason, this question was targeted to Finnish residents. The graph stated that out of 91 respondents, 90 were residents of Finland and one was temporarily resident of Finland. This chart is not attached based on its majority of similar answers. It did not bring any additional value to the research. The target group of Finnish consumers' was gathered and there were no residents from elsewhere.

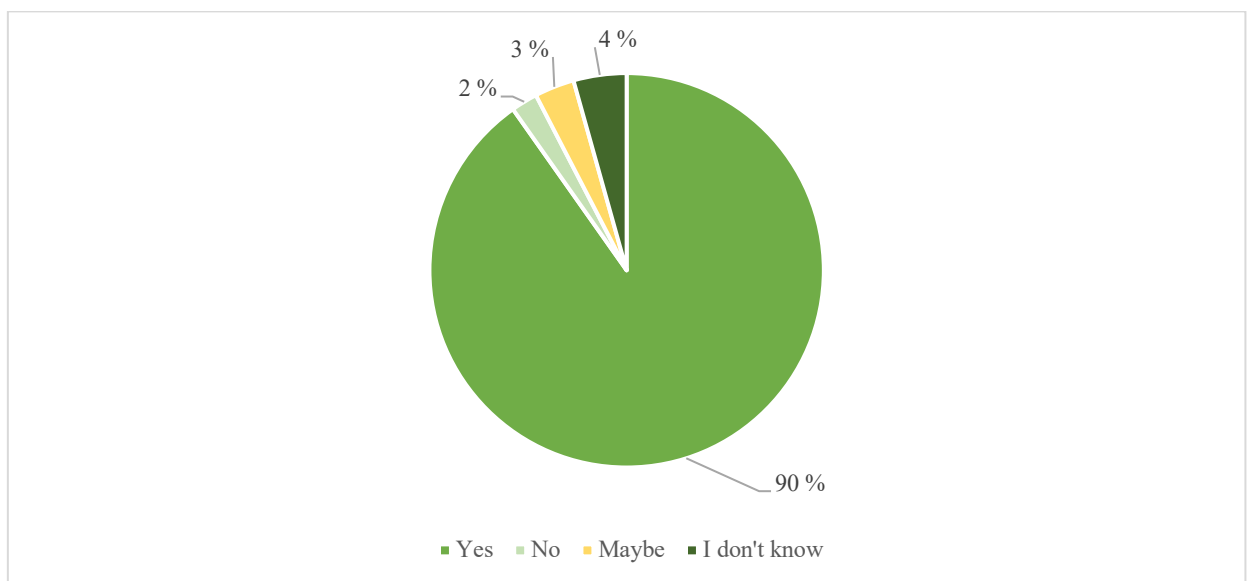


Figure 3. Have the respondents noticed different options of oat products, n=91

Source: Composed by the author

The fourth question was researching respondents awareness towards different oat products in grocery stores, online etc. Figure shows that 90% of the respondents have noticed different oat products in store shelves or somewhere else. 4% of the respondents did not know whether they have noticed different oat products. 3% of the respondents have maybe noticed different oat products and lastly, 2% of the respondents had not noticed any oat products.

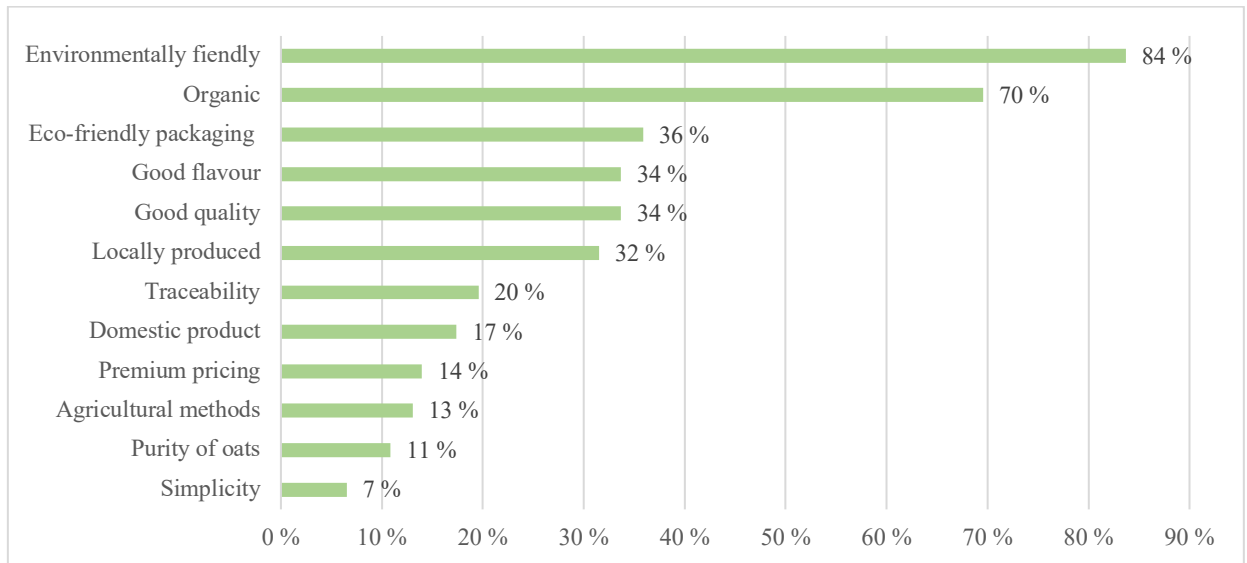


Figure 4. What does sustainably produced oat product mean and include for the respondent, n=91
Source: Composed by the author

In the fifth question, the author investigated what does sustainably produced oat product mean for the respondent. The respondents could select all that applied and Figure 4 shows the different answer choices. Figure shows that environmentally friendly (84%), organic (70%), and eco-friendly packaging (36%) were the most selected responses. Also, good quality (34%), good flavour (34%), and locally produced (32%) were selected with relatively high percentage. The other options were traceability (20%), agricultural methods (13%), domestic product (17%), premium pricing (14%), purity of oats (11%), and simplicity (7%). One of the applicable choice was bad flavour but it gathered zero responses. The author also left the option for the respondents to answer: other. In this, the respondent had an opportunity to write their own meaning for the sustainably produced oat product.

In the sixth question respondents were asked for a word or a phrase that comes to their mind when they hear the term ‘ sustainably produced oat product’. Out of 91 respondents, this question got 42 responses. This question was not compulsory. For the most parts, the answers were positive and relating to sustainable lifestyle or veganism. Also, some person’s and brands were mentioned such as David Attenborough and Oatly.

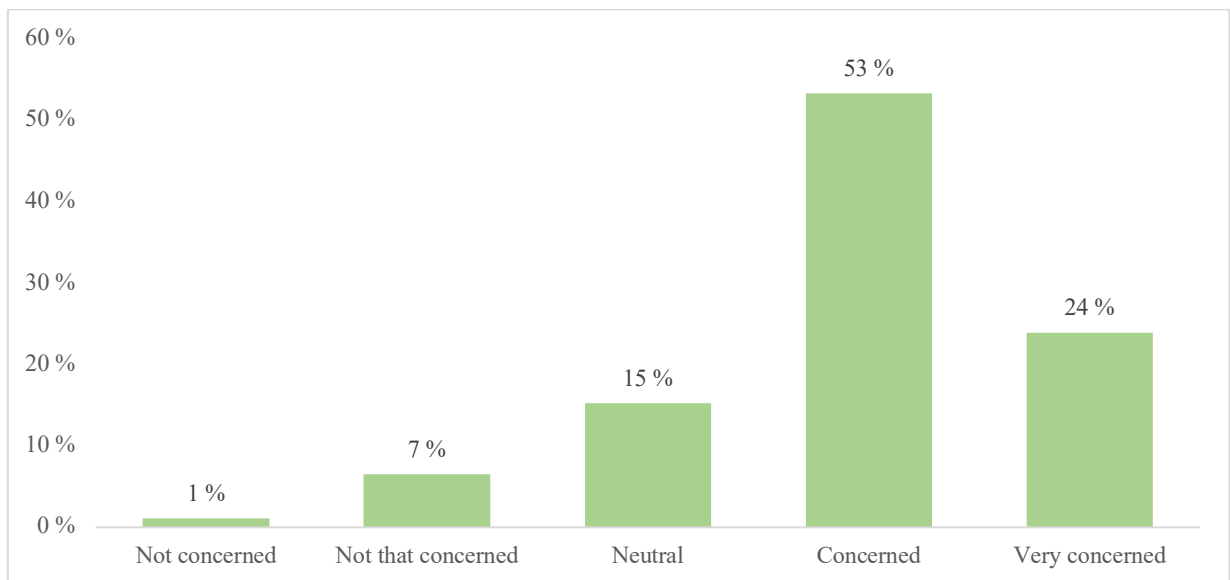


Figure 5. Respondents concern on the food industry’s impact on our environment. n=91

Source: Composed by the author

The seventh question was targeted on consumers’ concern on the food industry’s impact on environment. The associations were left to the respondent to decide. This question was an interval scale question, 1 being ‘not concerned’ and 5 being ‘very concerned’. As we can see from the chart, the majority answered (53%) the number four which was ‘concerned’. The second highest was number five (24%) being very concerned. 15% of the respondents were neutral and 7% of the respondents answered number two which was not that concerned. Only 1% of the respondents answered not concerned.

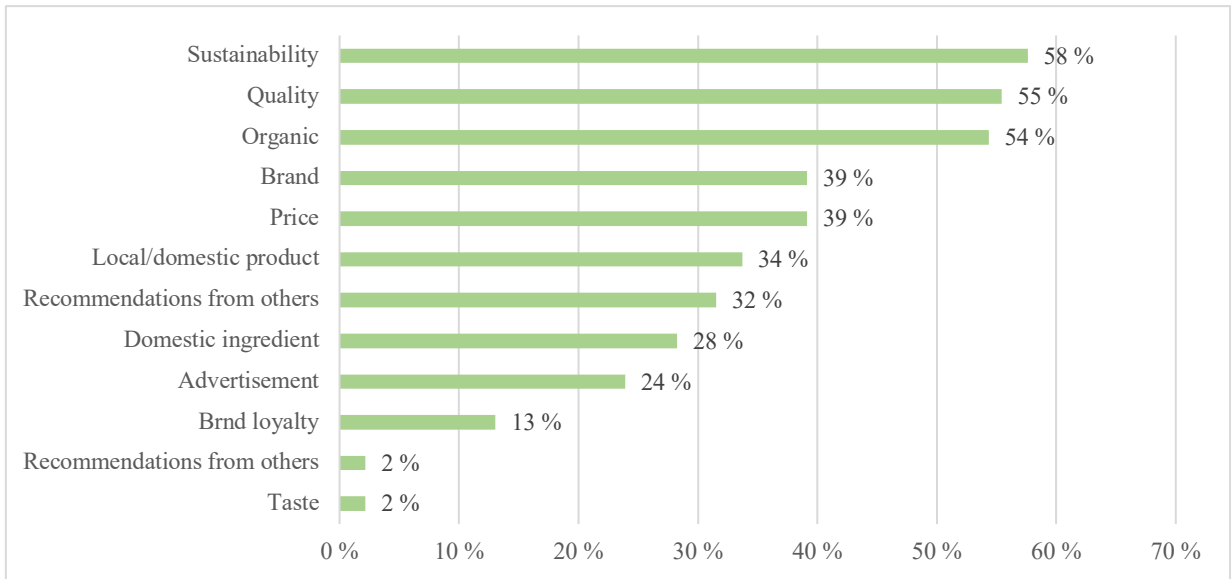


Figure 6. Respondents factors that affect when purchasing a certain oat product. n=91

Source: Composed by the author

In the eighth question, the respondents were asked ‘what are the factors that affect their purchasing decision when purchasing a certain oat product’. The respondents were advised to select all that applied. There were several answers to choose from but the three mostly selected responses were sustainability (58%), quality (55%), and organic (54%). The respondents also answered that brand (39%) and price (39%) affect their purchasing. Local/domestic product (34%), recommendations from others (32%), and domestic ingredient (28%) affect to their purchasing. Brand loyalty (13%) was important to some but was clearly a minority when comparig to other answers. The author made the other option for this question as well.

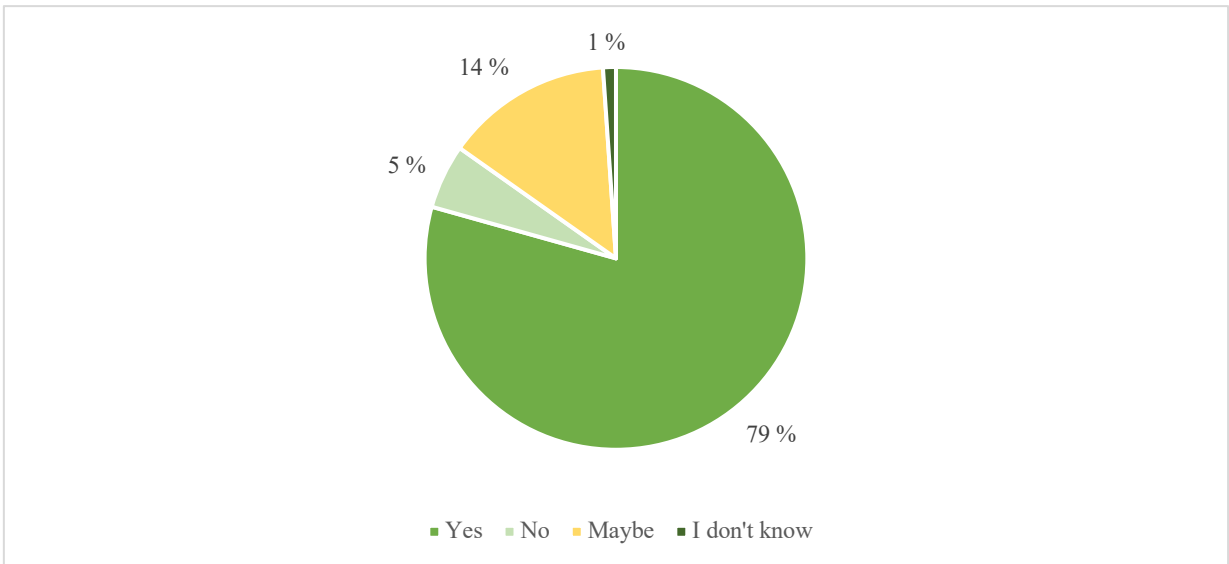


Figure 7. Have the respondents purchased sustainable oat products during the last 6 months. n=91
 Source: Composed by the author

In the ninth question, the respondents were asked if they have purchased sustainable oat products during the last six months. This was asked in order to clarify if the consumer really know what sustainably produced oat products are. In this question, the author also made clear that organic marking or other certificate that proves the products origin, can prove that product is sustainably produced. The Figure 7 shows clearly that the majority of the respondents (79%) have purchased sustainable oat products. 14% of the respondents may have bought sustainably produced oat products and 5% have not bought sustainably produced oat products at all. 1% of the respondents did not know if they have bought sustainably produced oat product.

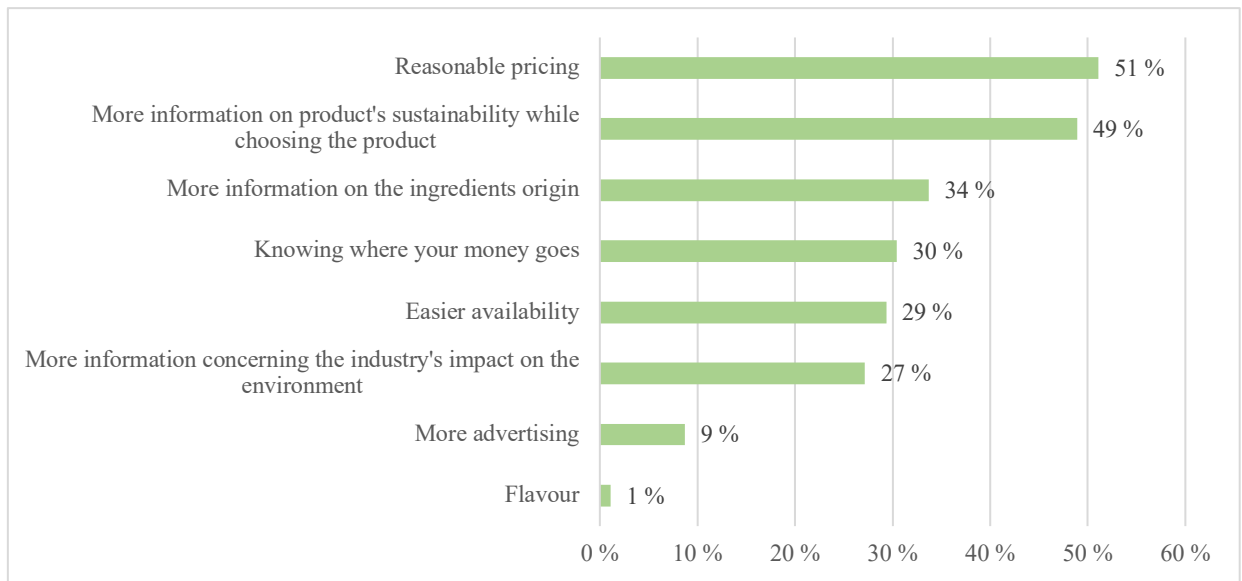


Figure 8. Factors for the respondent that would drive them towards purchasing more sustainably produced oat products. n=91

Source: Composed by the author

In the tenth question, the respondents were asked about the factors that would make them to purchase more sustainably produced oat products. The majority shows that reasonable pricing (51%) and more information on product's sustainability while choosing the product (49%) were selected. 34% of the respondents selected 'more information on the ingredients origin' as a factor. Knowing where your money goes (30%) and easier availability (29%) were also a factors to include. More information concerning the industry's impact on the environment (i.e. carbon footprint, emissions etc.) was a factor for 27 % of the respondents. The minority for 9% hoped for more advertising. Also, the other option was available in this question.

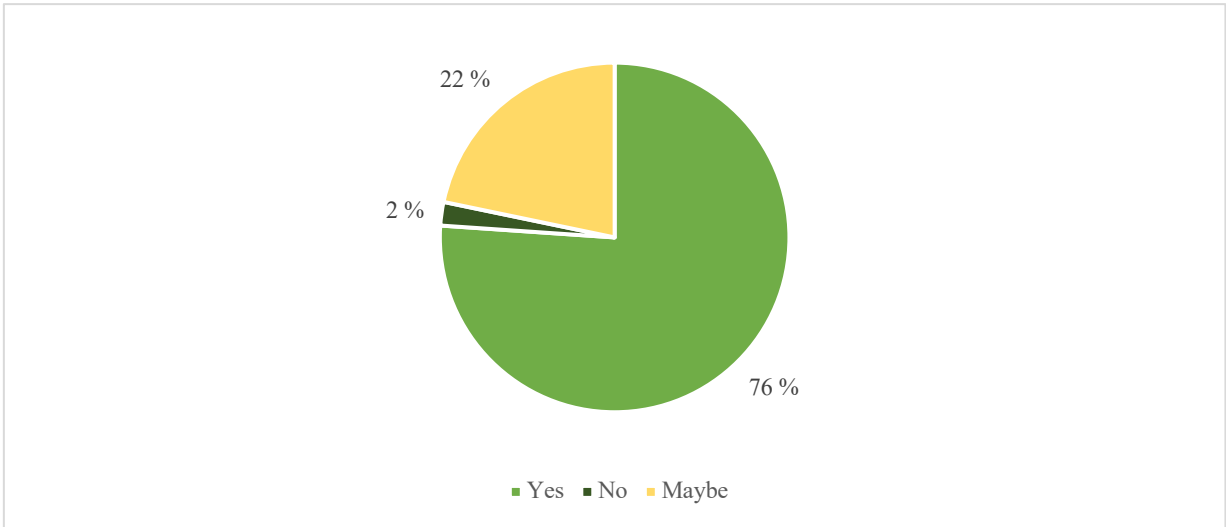


Figure 9. Willingness to pay extra for sustainably produced oat products. n=91

Source: Composed by the author

Eleventh question asked from the respondents, if they are willing to pay extra for sustainably produced oat products. Figure shows that 76% of the respondents are willing to pay extra and answered yes. 22% of the respondents are maybe willing to pay extra. Only 2% of the respondents are not willing to pay extra for sustainably produced oat products.

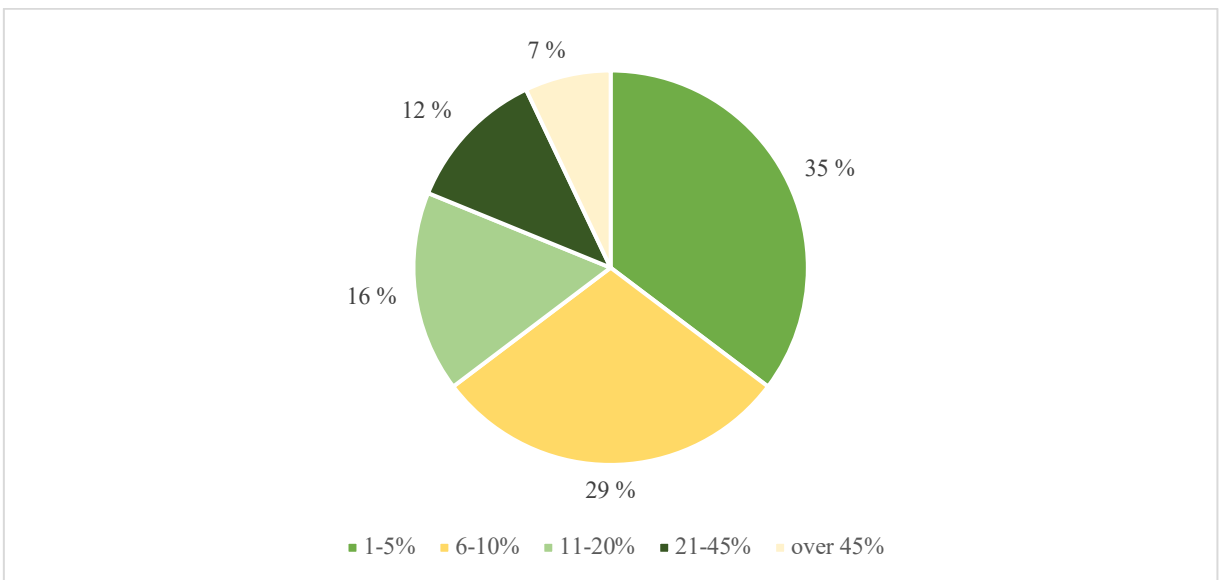


Figure 10. How much are the respondents willing to pay extra. n=84

Source: Composed by the author

Twelfth question was not compulsory and it only asked an opinion on those who answered ‘yes’ on the earlier question. After all, 84 respondents answered on how much more (in percentage) they are willing to pay extra on sustainably produced oat product. The majority of the respondents (35%) answered between 1-5%. Also, the second largest group of respondents (29%) answered between 6-10%. 16% of the respondents answered between 11-20% and 12% answered between 21-45%. Over 45% willingness to pay was among 7% of the respondents.

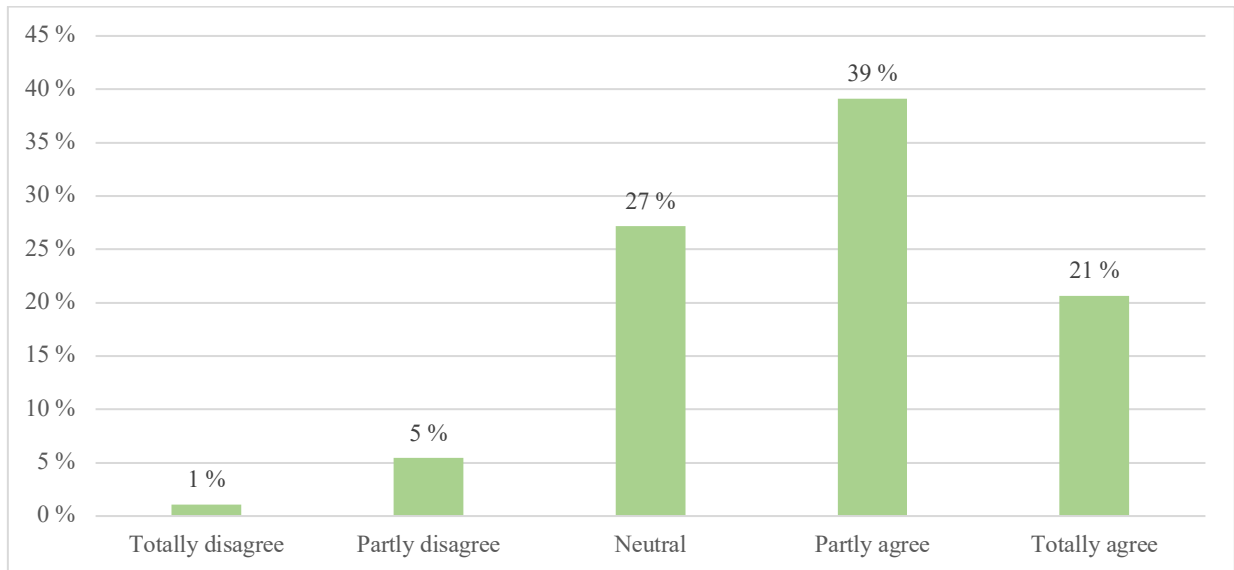


Figure 11. Would the respondent buy more sustainably produced oat products, if the prices were not so high. n=91

Source: Composed by the author

In the thirteenth question, the respondents were asked if they would buy more sustainably produced oat products, if the prices were not so high. This was an interval scale question ‘1’ being totally disagree and ‘5’ being totally agree. The majority of the respondents (39%) answered ‘partly agree’, 27% of the respondents answered ‘neutral’ and 21% answered ‘totally agree’. 5% of the respondents answered ‘partly disagree’ and 1% ‘totally disagree’.

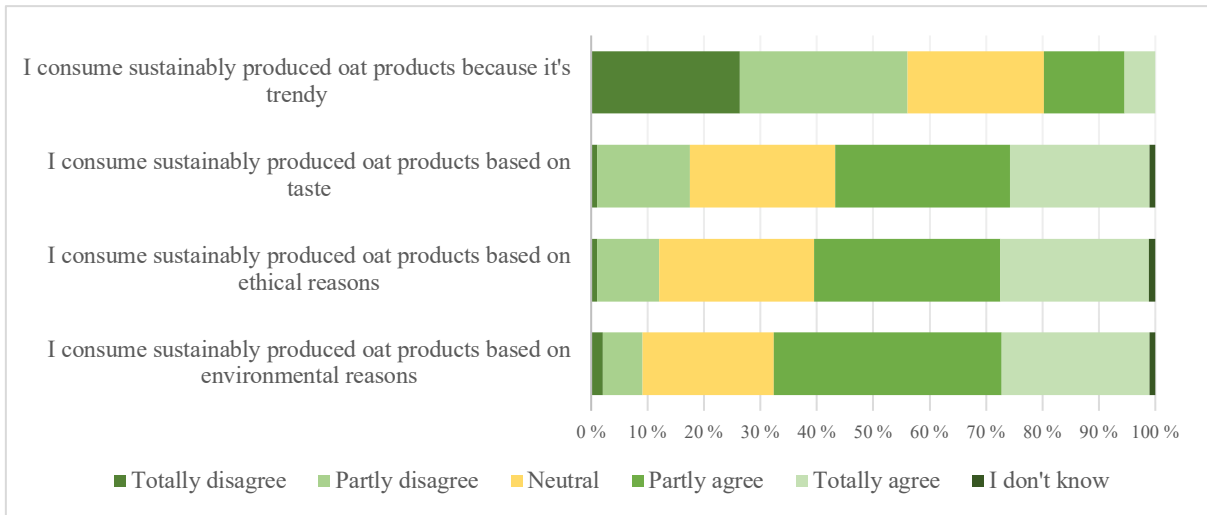


Figure 12. Does the respondent agree or disagree on the following statements. n=91

Source: Composed by the author

In this question, the respondents were asked on what motivates them to consume in four simple statements. The first statement was based on environmental reasons and its affect on consuming sustainably produced oat products. The majority has answered 'partly agree' and 'totally agree' on this. The second statement was consuming sustainably produced oat products based on ethical reasons. This gathered rather equal answers in its majority. The highest peak 'was partly agree' and after that 'neutral' and 'totally agree'. The third statement was about consuming sustainably produced oat product based on its taste. This statement was following the same steps of statements one and two. The 'partly agree' was the majority and 'neutral' was the second highest. The fourth statement was implying that the consuming happens based on a trend. The majority answered 'partly disagree' and 'totally disagree' on this.

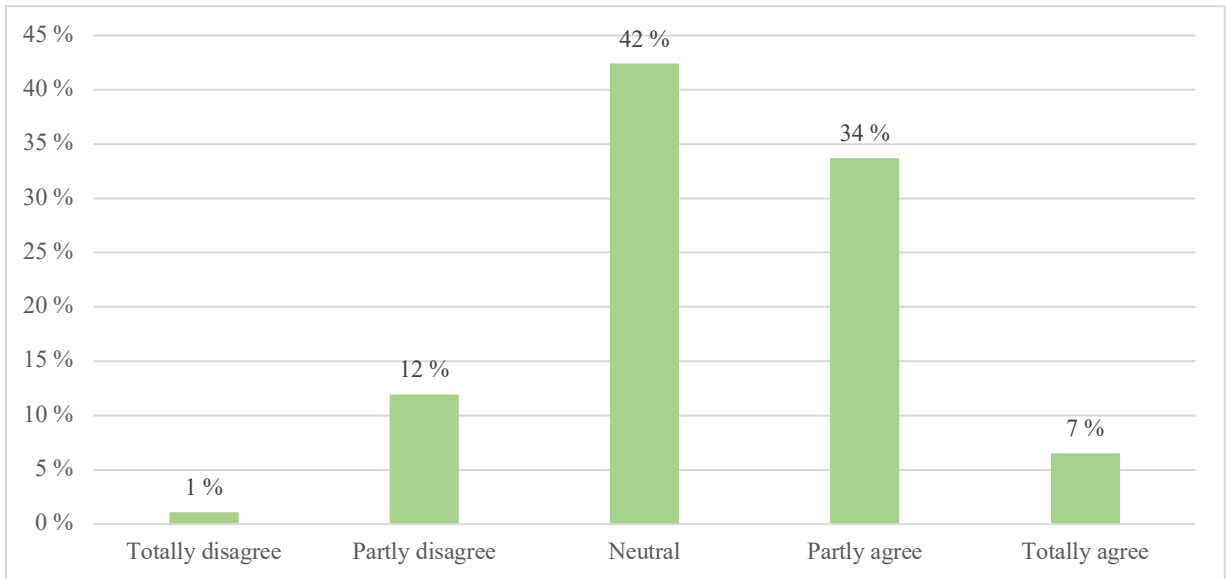


Figure 13. Respondents satisfaction to the current state of innovation of sustainable oat products. n=91

Source: Composed by the author

The fifteenth question asked about the respondents satisfaction on the current state of innovation of sustainable oat products. This interval scale question '1' being totally disagree and '5' being totally agree. We can see that the majority of the respondents (42%) answered '3' which is neutral.

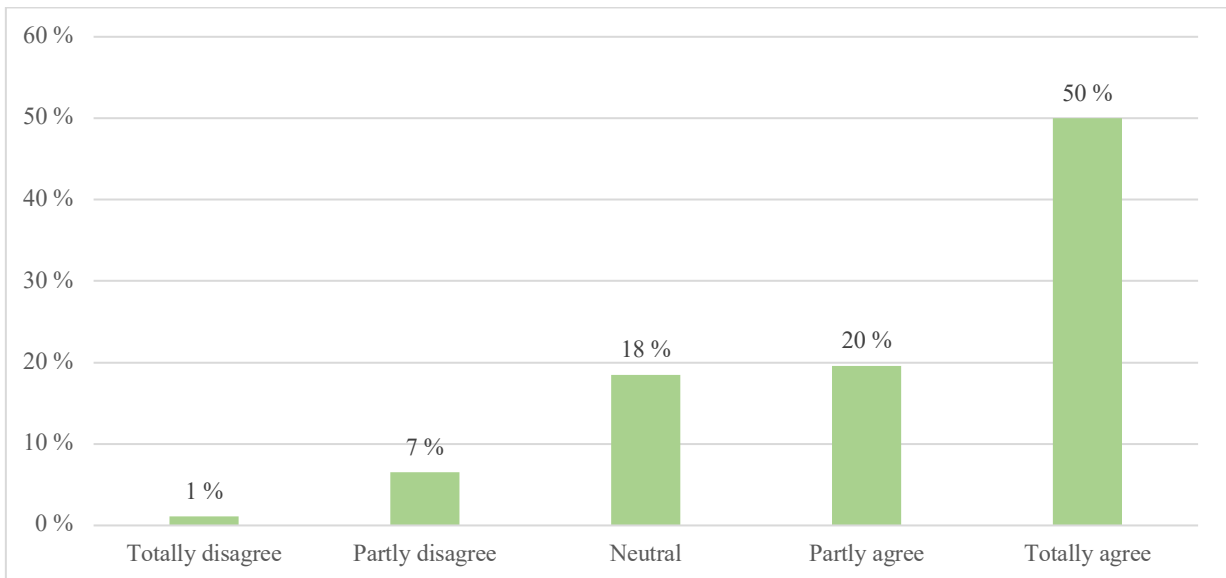


Figure 14. Do respondents want to see more sustainably produced oat products in the market. n=91

Source: Composed by the author

The sixteenth and the last question of the questionnaire asked the respondent about his/her willingness to see more sustainably produced oat products in the market. This interval scale question '1' being totally disagree and '5' being totally agree. Here, the majority (50%) answered 'totally agree'.

3.2. Discussion

The online questionnaire's questions were divided into three sections. The first section was about respondents own knowledge concerning the topic and consuming experiences. The second part consisted questions related to consumers' behaviour and present consuming habits. The last part was conducted in order to collect the current state-of-mind of a respondent. Also, to obtain their future expectations.

Most of the respondents have noticed different options of oat products. Although, the questionnaire did not ask for clarification, where the respondent has seen the different options. The majority who had noticed was 90% and only 2% had not seen different oat products. This indicates that consumers know very well that there is a variety of oat products and their existence. When the respondents were asked what does a sustainably produced oat product mean and include to them, the majority of answers were concerning environmental friendliness, organic, and ecological packaging. All these answers and reactions are linked to a wider concern of the well being of our environment. Environmentally friendly being the highest percentage of gathered responses (84%). Also, we can see that aspects concerning environment are brought up when mentioning oat production and sustainability. Other factors were mentioned as well, such as good quality, locally produced and good flavour. This shows the respondents concern towards the food industry and affect on the ways of food production.

The concerns on the food industry's impact on our environment were gathered and they showed that respondents are concerned on its impact. There were five possible answers, 1 being 'not concerned' and 5 being 'very concerned'. That left the other options to be not that concerned, neutral, and concerned. The highest peak among the respondents came to number four which is 'concerned'. Out of 91 respondents, 53% of them stated this answer. Sustainability in food systems

has become as one of the main goals of our century and in recent years, sustainable food products have risen more and more popular among the consumers.

According to the results on the respondents factors that affect their purchasing decision, when purchasing a certain oat product, sustainability was the answer among the majority. This includes 58% of the respondents. Also, the options of organic gathered 54% and quality 55% of the respondents chose factors. Sustainability is clearly an important factor when it comes to consuming food products but especially when it comes to oat products. The majority of respondents had purchased sustainable oat products during the last 6 months. 79% had purchased, while 14% maybe had purchased. Here, there might be a lack of knowledge within the consumer on what is sustainably produced oat and what is not. In this question the respondent was given with a guiding sentence that would make the choosing more straight forward. Even though almost 80% had a clear understanding of buying sustainable oat products. Only 5% from the respondents had not purchased sustainable oat products.

When respondents were asked about the factors that would drive them towards purchasing more sustainably produced oat products, the most common answer was reasonable pricing (51% of the respondents). Other factor that was close behind was requiring information on product's sustainability while choosing the product (49% of the respondents). This indicates that consumers' would be more willing to pay with reasonable pricing among the sustainably produced oat products and requiring more information on product's sustainability. Information usually comes through companies transparency and product's general information. For example, the EU's organic logo - certificate is a clear and understandable proof of sustainability and organic practices. The majority of respondents were willing to pay extra for sustainably produced oat products (76% of the respondents). 22% of the respondents answered 'maybe' willing to pay extra. Also, the tendency to purchase sustainably produced oat products, if the prices would not be so high gave an understanding on the 'high' price.

The respondents were asked on what motivates them to consume in four simple statements. All the statements started with the same beginning ' I consume sustainably produced oat products based '. The end of these statements differed and they were as following: based on environmental reasons, based on ethical reasons, based on taste, and because it is trendy. The first three statements gave approximately similar answers. Respondents partly agreed on the environmental reasons, ethical reasons, and the taste. The fourth statement showed, that most of the respondents had

answered 'partly disagree' while the second highest answer of the respondents was 'totally disagree'. The respondents were asked if they are satisfied with the current state of innovation of sustainable oat products. The majority of respondents answered 'neutral' and 'partly agree'. This at least tells, that there is no shortage of sustainable oat products in the Finnish market. Although, the final question asked if in the future, the respondent wants to see more sustainably produced oat products in the market. The majority of the respondents answered 'totally agree'. These final two questions state that Finnish consumers' are satisfied on the nowadays supply on the sustainable oat products but they still are willing to see more in the future.

CONCLUSION

This research aimed to find out consumers' attitudes towards sustainably produced oat products in Finland. Sustainability in food industry has become as one of the main goals of our century around the world. Health scares and different concerns related to environmental and ethical reasons have changed the consumers' behaviour and their attitude towards purchasing sustainable products. Consumers' and their attitudes have a giant role on shaping the future of our food industry. Even though the relationship between the agricultural systems and the environment is complex, the agricultural aspect and its importance was brought to the research. Both, organic farming and conventional farming can include sustainable practices but organic production guarantees the environmental practices and was hereby dealt with.

The research aim was achieved with an online questionnaire. The questionnaire included 16 different questions and it was used as a research instrument of this study. After, it was analysed using the descriptive statistics. The research question was: what are the consumers' attitudes towards sustainably produced oat products? The main results of this research were that the consumers' had a positive attitudes towards sustainably produced oat products and their current consumption habits refer to the point, where the consumers' are already purchasing sustainable oat products. Consumers' were also willing to pay extra for sustainably produced oat products. They would purchase sustainably produced oat products more frequently, if the prices would be lower. Also, the awareness of different oat products has been noticed among the consumers'. The research gathered the factors that motivates the consumer to consume sustainable oat products. These were the environmental and ethical reasons as well as the taste of oat. Also, the consumers want to see more sustainable oat products in the market in the future. Differences between the gender and the age were not significant when we look at the attitudes.

Couple of limitations take place in this research. The online questionnaire closed out the opportunity to answer for people who have not access to internet or social media. Also, the non-probability sampling method which was used, does not include the whole population.

The future research on this topic is needed. For the further studies, narrowing the topicality is suggested based on the vast amount of information concerning attitudes and sustainable food production. Sustainability as a whole is also a definition that includes a lot. Narrowing this definition to parts is suggested for the further studies. Also, by using the qualitative research method towards same topic, it would perhaps give new perspectives on the matter. Also, potential in marketing practices for the future is suggested.

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APPENDICES

Appendix 1. The online questionnaire

Consumer Attitude Towards Sustainably Produced Oat Products in Finland

Dear participant,

This survey is presented as a primary data collection method for a Bachelor's Thesis in Tallinn University of Technology – Department of International Business Administration.

The main objective of this questionnaire is to find out different consumer attitudes towards sustainably produced oat products in Finland. The questionnaire will take approximately 5 minutes and all the answers will be treated anonymously as well as with confidentiality. By giving your honest answer, the study will receive truthful results.

Thank you for taking the time to fill out this questionnaire. It is much appreciated!

*mandatory question

Q1. Age *

- Under 18
- 18-29
- 30-39
- 40-49
- 50+

Q2. Gender *

- Male
- Female
- Other
- Prefer not to say

Q3. Are you a resident of Finland *

- Yes
- No
- Temporarily, yes

Q4. Have you noticed different options of oat products? (In grocery store, online etc.) *

- Yes
- No
- Maybe
- I don't know

Q5. In your opinion, what does sustainably produced oat product mean and include? Please select all that applies. *

- Environmentally friendly
- Organic
- Eco-friendly packaging
- Traceability
- Agricultural methods
- Locally produced
- Domestic product
- Premium pricing
- Good quality
- Purity of oats
- Good flavour
- Bad flavour
- Simplicity
- Other _____

Q6. When you hear the term 'sustainably produced oat product', what word or phrase comes to your mind?

Q7. Do you have concerns on the food industry's impact on our environment? *

Not concerned - - - - - Very Concerned

Q8. What are the factors that affect your purchasing decision when purchasing a certain oat product? Please select all that applies. *

- Brand
- Advertisement
- Price
- Brand loyalty
- Quality
- Recommendations from others
- Organic
- Local/domestic product
- Domestic ingredient
- Sustainability
- Other _____

Q9. Have you purchased sustainable oat products during the last 6 months? (oat products that are certificated with organic marking or other certificate to prove its origin) *

- Yes
- No
- Maybe
- I don't know

Q11. Are you willing to pay extra for sustainably produced oat products? *

- Yes
- No
- Maybe
- I don't know

Q12. If yes, how much more approximately?

- 1-5%
- 6-10%
- 11-20%

- 21-45%
- over 45%

Q13. I would buy more sustainably produced oat products, if the prices weren't so high. *

Totally disagree - - - - - Totally agree

Q14. How much do you agree or disagree with the following statements regarding consuming?

Please select the most suitable option. *

I consume sustainably produced oat products based on environmental reasons

Totally disagree - - - - - Totally agree

I consume sustainably produced oat products based on ethical reasons

Totally disagree - - - - - Totally agree

I consume sustainably produced oat products based on taste

Totally disagree - - - - - Totally agree

I consume sustainably produced oat products because it's trendy

Totally disagree - - - - - Totally agree

Q15. I am satisfied with the current state of innovation of sustainable oat products. *

Totally disagree - - - - - Totally agree

Q16. In the future, I wish to see more sustainably produced oat products in the market. *

Totally disagree - - - - - Totally agree

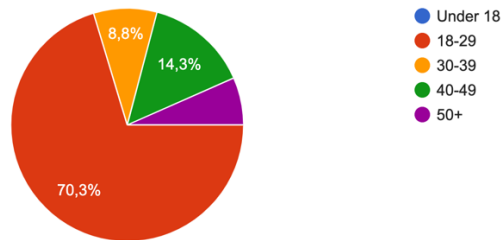
Source: Composed by the author

Thank you for taking the time to fill out this questionnaire. It is much appreciated!

Appendix 2. The results of the online questionnaire

Age

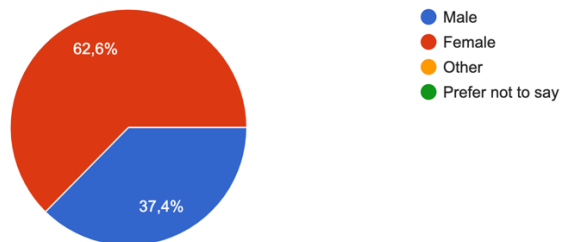
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Gender

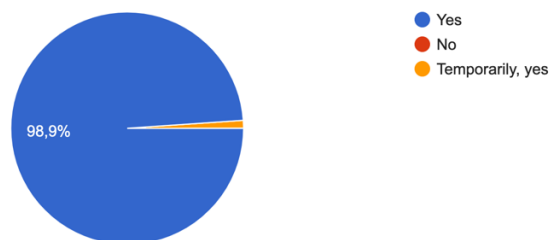
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Source: Composed by Google Forms.

Are you a resident of Finland?

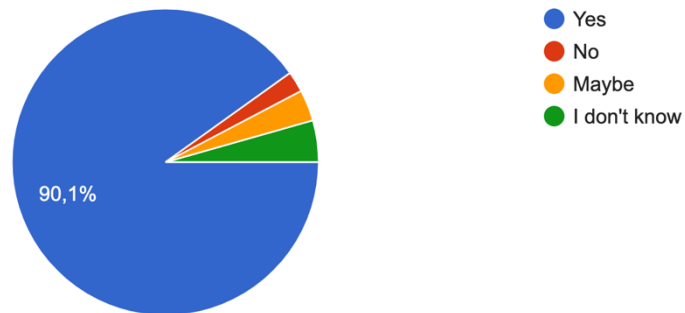
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Source: Composed by Google Forms.

Have you noticed different options of oat products? (In grocery store, online etc.)

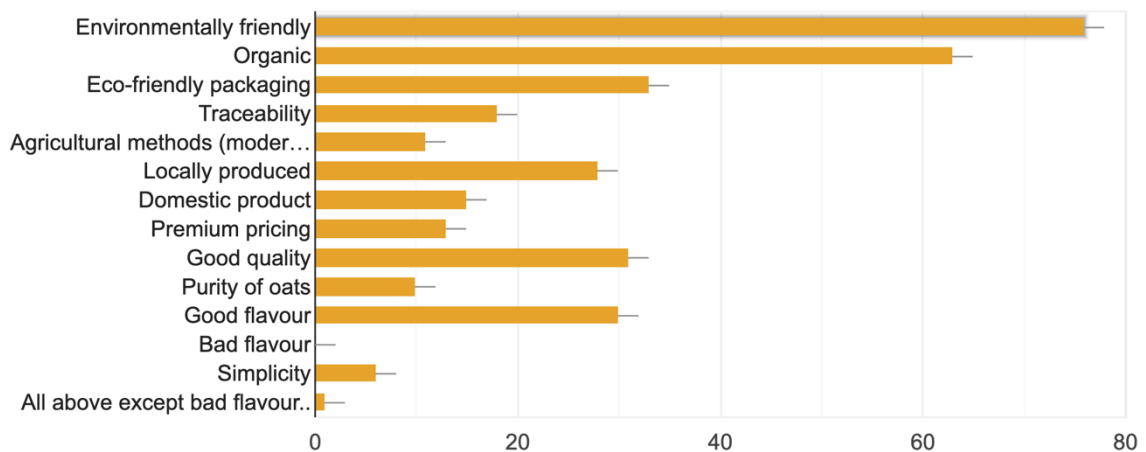
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Source: Composed by Google Forms.

In your opinion, what does sustainably produced oat product mean and include? Please select all that applies.

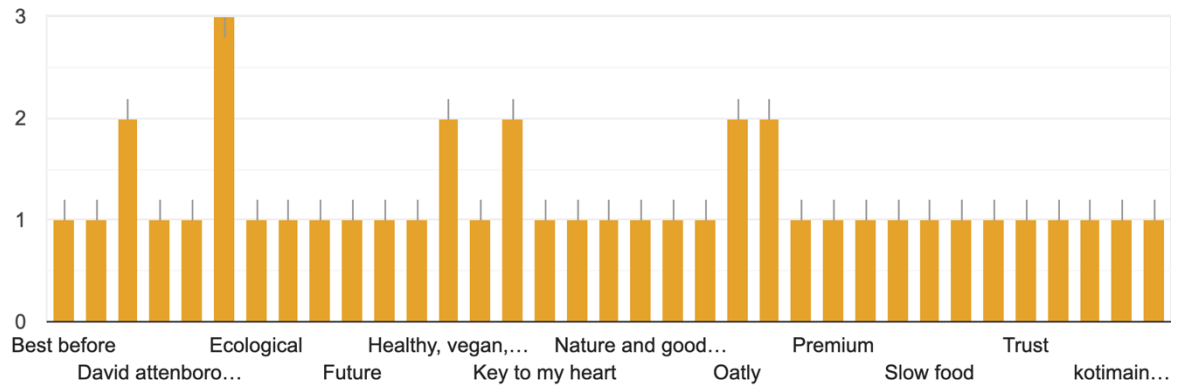
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Source: Composed by Google Forms.

When you hear the term 'sustainably produced oat product', what word or phrase comes to your mind?

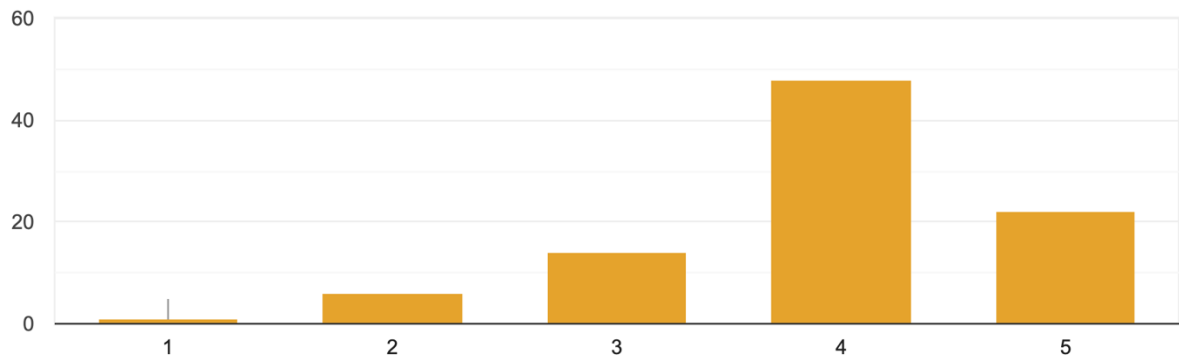
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Source: Composed by Google Forms.

Do you have concerns on the food industry's impact on our environment?

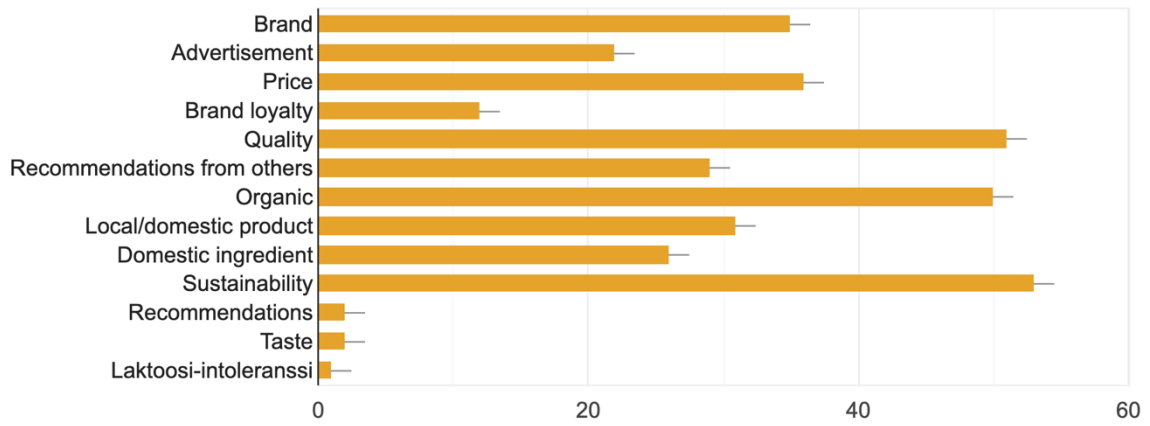
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Source: Composed by Google Forms.

What are the factors that affect your purchasing decision when purchasing a certain oat product?
Please select all that applies.

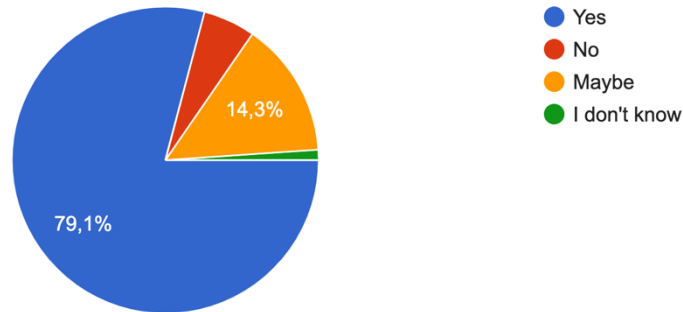
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Source: Composed by Google Forms.

Have you purchased sustainable oat products during the last 6 months? (oat products that are certificated with organic marking or other certificate to prove its origin)

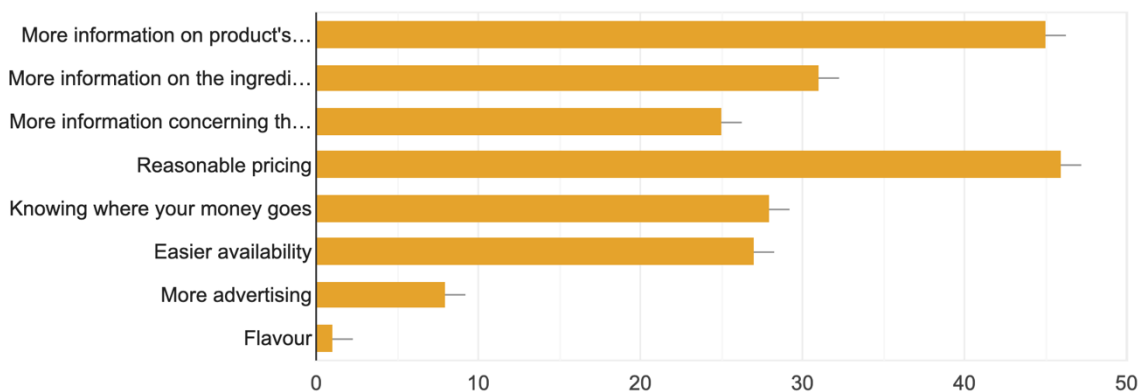
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Source: Composed by Google Forms.

What are the factor(s) that would drive you towards purchasing more sustainably produced oat products? Please select all that applies.

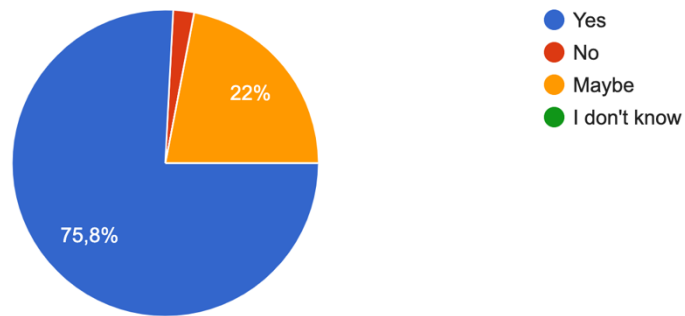
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Source: Composed by Google Forms.

Are you willing to pay extra for sustainably produced oat products?

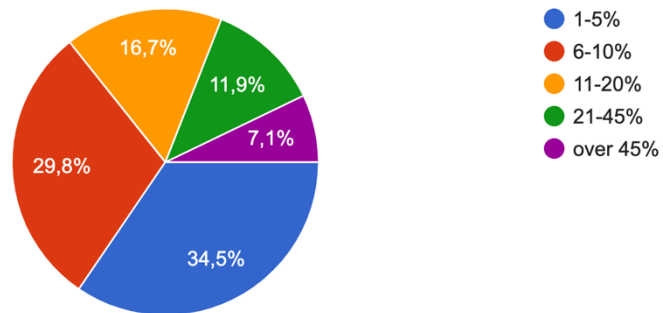
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Source: Composed by Google Forms.

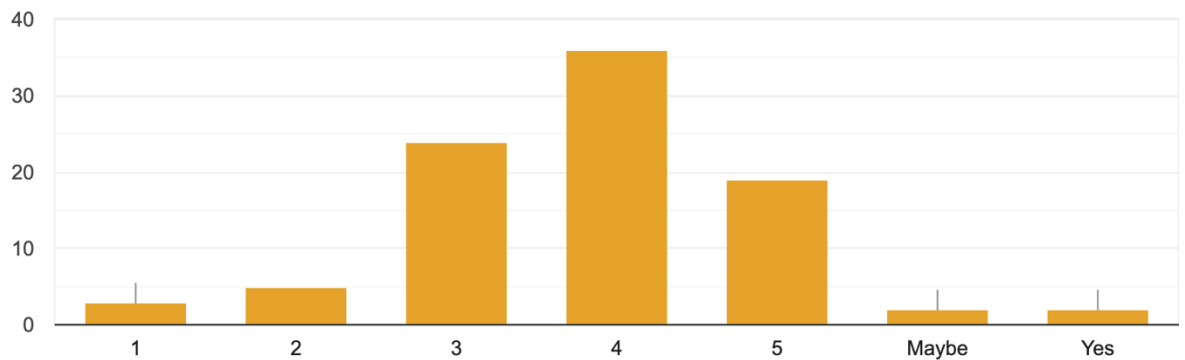
If yes, how much more approximately?

84 vastausta



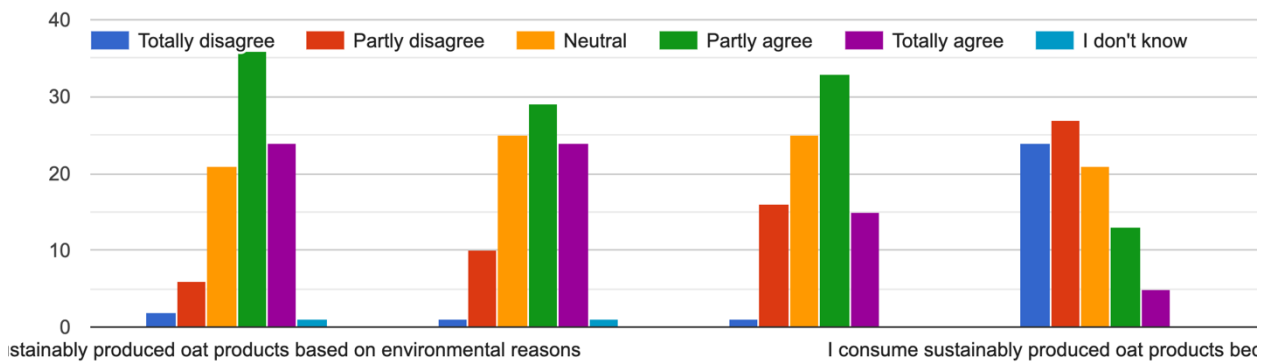
Source: Composed by Google Forms.

I would buy more sustainably produced oat products, if the prices weren't so high
 91 vastausta



Source: Composed by Google Forms.

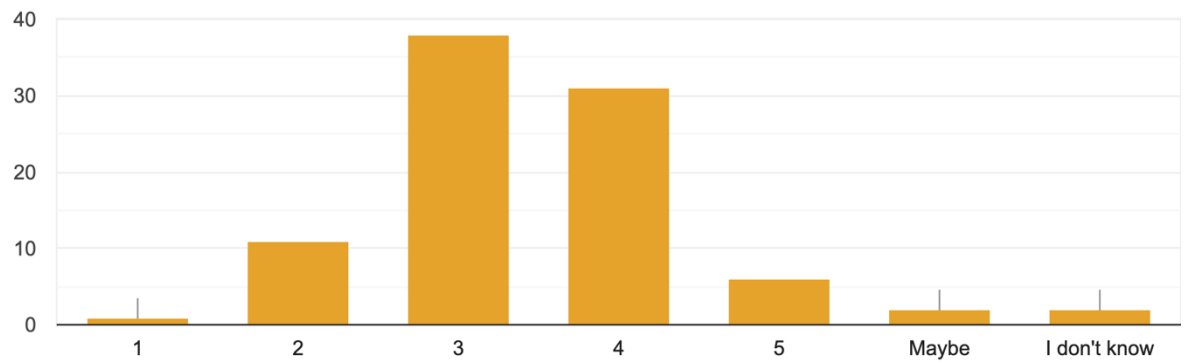
How much do you agree or disagree with the following statements regarding consuming? Please select the most suitable option.



Source: Composed by Google Forms.

I am satisfied with the current state of innovation of sustainable oat products

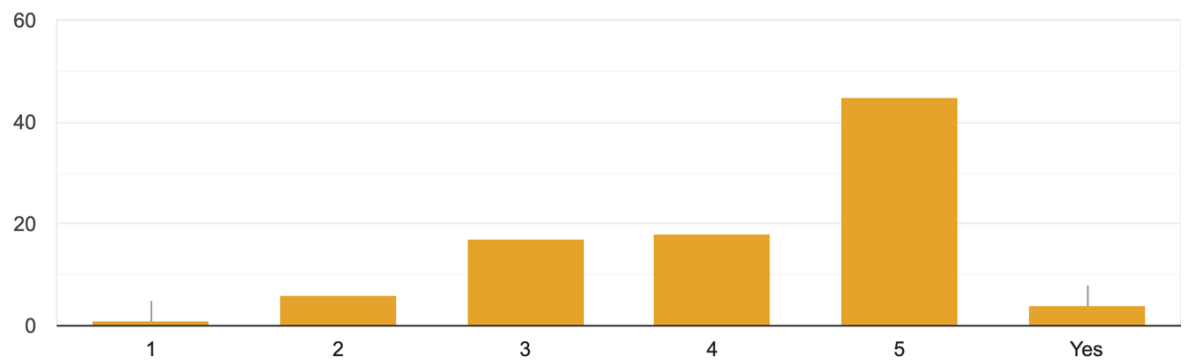
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Source: Composed by Google Forms.

In the future, I wish to see more sustainably produced oat products in the market

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