

## Consumption of non-alcoholic beers in Helsinki metropolitan area

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<p>The trend of non-alcoholic beers has grown during the last years. Non-alcoholic beer is brewed like a beer, but the alcohol has been removed during the process. It may contain up to 0,05 % of alcohol. There are several health issues related to non-alcoholic beers compared to consuming regular beer, such as less calories, increase in sleep quality, decrease in anxiety and enhanced production of breast milk. The trend has grown globally as well. The Finnish alcohol retailer Alko has 17 different non-alcoholic beers in their selection.</p> <p>The research was conducted in the autumn 2018 as a quantitative questionnaire by using the Webropol online tool. The main research question was to find out what kind of people consumed non-alcoholic beers in Helsinki metropolitan area. With that a consumer profile was created to help breweries and restaurants understand their potential customers better. The sub-research questions were why they consumed non-alcoholic beers and what brands and products they preferred. These research questions helped to understand what qualities consumers liked in the non-alcoholic beers, so the products could be developed to fit in better to the consumers' taste.</p> <p>The responses to the survey were collected through Facebook groups. Originally the survey was thought to be published in six different groups both to each cities' local Facebook groups as well as groups related to beer. This way both local consumers as well consumers who know about beer could be reached. The survey was only allowed to be published in groups "Helsinki hotelli- ja ravintola-alan sisäpiiri", "Olutliitto – kuluttajan asialla", "Puskaradio Helsinki" and "Puskaradio Grani". The survey got 342 responses within few days, from which 313 were qualified to the research. The rest had not tasted non-alcoholic beers nor lived in Helsinki metropolitan area.</p> <p>The average non-alcoholic beer consumer in Helsinki metropolitan area is as follows: a higher educated middle-aged male living in Helsinki city, who has at least one child and he earns quite averagely. He drinks beer on average twice a week, but only takes one or two doses. He consumes non-alcoholic beer at least once a month. He enjoys it best when going to sauna or with food. To him non-alcoholic beer works as a replacement for alcoholic beverages. He trusts his own experiences when choosing the product. He buys non-alcoholic beer from a grocery store if he needs to avoid getting drunk or in general do not want to have alcohol. He would drink more non-alcoholic beers if the variety of selection would be wider and if they tasted more like regular beer. He has not experienced health benefits of consuming non-alcoholic beers, most likely because he is lacking the knowledge on them.</p>	

Heineken 0,0 % was the most preferred product, and Finnish Lapin Kulta Zero 0,0 % Vaalea the least liked. In general, the product studied were not so much thought to be worth the money. Some did not like the taste, because it did not taste like a regular beer. The variety in the selection of the products were wished to be wider with more different types of beers.

For the future the health benefits of consuming non-alcoholic beer should be studied further with longer tracking periods and with larger scale. When more reliable data will be reached, it should be brought to the attention of the consumers. There should be find ways to get females to consume more non-alcoholic beers. That could be done for example by bringing awareness of the health benefits to the marketing of the products.

**Keywords**

non-alcoholic beer, consumption, Helsinki metropolitan area

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# 1 Introduction

This report starts with theoretical part that is divided into different sections. The first section introduces Finnish drinking culture. With understanding, how alcohol has been part of Finns' lives, it is easier to understand why the non-alcoholic trend has grown. The next part shows how the trend of non-alcoholic beer has grown here in Finland and abroad. The biggest breweries in Finland Sinebrychoff and Hartwall have done their studies that showed there was need for non-alcoholic versions. With that information gained they have started to make their own non-alcoholic beer brands. Finland is behind the leading countries such as Germany and Holland, but the trend of non-alcoholic beers most likely will keep growing in the future.

Non-alcoholic beer is brewed like a beer, but the alcohol has been removed during the process. It may contain up to 0,05 % of alcohol. The second part of the theory focuses on possible health benefits you may gain if you consumed non-alcoholic beers. For example: increase in sleep quality, decrease in anxiety and enhanced production of breast milk. The studies are still on early stages and there is need for further studies on the health benefits.

The last section of theory introduces non-alcoholic beer brands and products available in Finland. For example, Alko has 17 different non-alcoholic beers in their selection. There are some results shown on different tastings held by different companies to show how people like the products. Deeper focus was given to the products Koff Crisp, Lapin Kulta 0,0 %, Heineken 0,0 % and Beck's Blu. Those were later on studied in this research.

The next part focuses on the research itself and how it was conducted. The main objective was to create a consumer profile to help the breweries, restaurants and shopkeeper to understand their customers better. With the results gained from this research, they may develop their non-alcoholic beers and their selection to be more suited to their customer. The research was done from the consumer's point of view. The main research question was: What kind of people drink non-alcoholic beer in Helsinki metropolitan area? The sub-research questions were: Why do they drink non-alcoholic beers? What kind of non-alcoholic beer products do people consume?

The research was conducted in the autumn 2018 as a quantitative questionnaire by using the Webropol online tool. The responses to the survey were collected through Facebook groups: "Helsinki hotelli- ja ravintola-alan sisäpiiri", "Olutliitto – kuluttajan asialla", "Puskaradio Helsinki" and "Puskaradio Grani". The survey got 342 responses within few days, from which 313 were qualified to the research. The questionnaire includes sections:

demographics, drinking habits, non-alcoholic beer, health benefits and products. The same order can be found on the results as well.

The next part focuses on the results of this research. There you can see how people answered to the survey questions and how the responses were divided among the respondents. Cross analyzing was done between females and males.

In the fourth section you can see the consumer profile that has been made according to the data gained from this research. The average non-alcoholic beer consumer in Helsinki metropolitan area is as follows: a higher educated middle-aged male living in Helsinki city, who has at least one child and he earns quite averagely. He drinks beer on average twice a week, but only takes one or two doses. He consumes non-alcoholic beer at least once a month. He enjoys it best when going to sauna or with food. To him non-alcoholic beer works as a replacement for alcoholic beverages. He trusts his own experiences when choosing the product. He buys non-alcoholic beer from a grocery store if he needs to avoid getting drunk or in general do not want to have alcohol. He would drink more non-alcoholic beers if the variety of selection would be wider and if they tasted more like regular beer. He has not experienced health benefits of consuming non-alcoholic beers, most likely because he is lacking the knowledge on them.

The results showed that Heineken 0,0 % was the most preferred product, and Finnish Lapin Kulta Zero 0,0 % Vaalea the least liked. In general, the product studied were not so much thought to be worth the money. Some did not like the taste, because it did not taste like a regular beer. The variety in the selection of the products were wished to be wider with more different types of beers.

In the last section there is cross analyzing between the results and the theoretical part. It was seen that this research had similar kind of results that previous researches had. For example, that Finns prefers to consume non-alcoholic beer at sauna or with food and that males consume more.

In the end there are some ideas for the future. The health benefits of consuming non-alcoholic beer should be studied further with longer tracking periods and with larger scale. When more reliable data will be reached, it should be brought to the attention of the consumers. There should be find ways to get females to consume more non-alcoholic beers. That could be done for example by bringing awareness of the health benefits to the marketing of the products.

## 2 Non-alcoholic beer

Non-alcoholic beer is a malt-based beverage with very or no alcohol content. Beer in definition always contain alcohol, so non-alcoholic versions should avoid the word beer in their names. It depends on the country what names should be used for which low alcohol level. In Europe the Union has set that alcohol-free applies to beverages with less than 0,5 % of alcohol content. (Thomas 2018.) This thesis is focused mainly on the non-alcoholic beers that contain 0 % of alcohol. If the examples include more than 0 % up to 0,5 % of alcohol, it is mentioned in this report. The Finnish government owned alcohol retail Alko defines their non-alcoholic products to be up to 0,5 %. (Alko 2018.) The little amount of alcohol often makes the beer taste stiffer and tastier. The closer you go to zero when brewing beer, the harder the whole process gets. (Ziemann 2018.)

Non-alcoholic beverages are linked to public relations. Breweries are the leaders on responsible drinking. They need to make clear they are committed to that. Non-alcoholic beer can make business sense. In many countries it has a similar price point to a regular beer, but you pay less taxes. That way the margins are way higher than with a regular beer. The problem is to sell the non-alcoholic versions without affecting the sales of real beer. (Wilmot 2017.)

There are obvious reasons to select non-alcoholic beer instead of regular beer. You will not get a headache nor the bad taste in your mouth the next morning. It is perfect if you want to enjoy the taste of beer but will rather do it without the alcohol.

There is still some confusion around the concept of non-alcoholic beers and why should you consume it. First non-alcoholic beer really is non-alcoholic beer. It is not soda nor soft drink. It really is beer without alcohol. Or very little alcohol depending on the regulations. It is made like regular beer. The only difference is that the alcohol gets removed during the brewing process, usually by filtering or boiling. You can even make your own by masking malt, boil it with hops and ferment it. Remove the alcohol by heating the brew. (Tokemu 2018.)

The popularity of non-alcoholic beer is growing and more breweries are brewing their own non-alcoholic versions. There are many different brands to choose from. They are labelled in a way that you can see it is alcohol free. There is usually 0,0 % mark on the label. There are several health benefits of drinking non-alcoholic beer. It is healthier option compared to regular beer, because non-alcoholic versions tend to have fewer calories. They also have more vitamins than regular beer. (Tokemu 2018.)

## **2.1 The trend of non-alcoholic beer consumption and Finnish drinking culture**

This section focuses on the growing trend of non-alcoholic beers. This section is divided into two parts, first focus on Finnish drinking culture and on how the trend of non-alcoholic beers have grown here in Finland. The second part focuses on how the trend has grown abroad, with examples all over the world; even from Chile, USA and many European countries.

### **2.1.1 The drinking culture and the growth of non-alcoholic beers in Finland**

Maunu (2017, 6-7.) has studied Finnish drinking culture in his book "Humalan tällä puolen". According to him Finnish drinking habits are thought to be undeveloped, the main reason is to drink is thought to get drunk. The book used an approach between the everyday life and alcohol. There are so called "wine countries", where wine is part of the everyday life. In Finland, the alcohol takes you away from your everyday life. It helps you with social situations, lightens your everyday life and it helps you relax. It opens the gates to be with other people and to freedom. (Maunu 2017, 6-7.)

Maunu states in his book that Finns tend to separate their everyday life and the alcohol. They don't want to risk their families and carrier with alcohol. In the same time succeeding with everyday life allows you to enjoy alcohol and take a break from your everyday life. Finns drink with three different ways: small drinking, party drinking and to get drunk. The main point is not the amount of alcohol drunk, but the situation, the way of drinking and the totality they create. Small drinking is a new concept, which means drinking as part of your everyday life. It helps you relax and get some freedom in your everyday life. It is very close to your everyday life, kind of being part of it. For example, having a beer after a workday. With party drinking the main point is to be social, hang out with other people and to have fun. You exceed your everyday life, but it happens in safe surrounding and during times separated from your everyday life. Usually during weekend or holidays. You are expected to be in such a condition that you can have fun together. The heavier version is to get drunk. Then you exceed your everyday life a lot. You forget the everyday life's expectations and rules. That leads to that anything can happen. (Maunu 2017, 6-7.)

Finland has a rich and very own kind of drinking culture. In public it is thought that Finnish people drink heavily. Finns drink because they want something extra enjoyment for their everyday life or they celebrate, or because of social situations. The history for drinking is very long. In traditionally Finns have drunk beer and hard liquors with the intention to get drunk. It is important to understand the history if you want to understand the present culture. The history has shaped the current understanding and the values towards drinking.



The change will not happen by disparaging the culture, but by understanding and by trying to strengthen it from its own starting points. (Maunu 2017, 6-7.)

Every kind of drinking has its advantages and disadvantages. A realistic alcohol policy should maximize the advantages without denying anything. Drinking is always tied with situation and context. That is why it is important to note other factors than alcohol itself and the availability of it in the alcohol policy. There is need for discussion of social, cultural and emotional reasons and consequences of drinking. Often, they are more valuable to the drinkers themselves. With the policy, the winner will be the ones who can earn the citizens' trust by recognizing and acknowledging the different sides of drinking and by valuing them. There is a need for effective tools for self-motivated change. (Maunu 2017, 6-7.)

Even as a Finn, it is good to know more about our drinking culture. Maunu's "Humalan tällä puolen" (2017.) has given a lot of new perspectives to look at our drinking habits. With understanding the reasons behind drinking it is easier to understand the future and why non-alcoholic versions have gained such a huge popularity. The alcohol policy and regulations have been discussed a lot in the public during recent past years. There is a need to get Finns' alcohol consumption under control and the government has tried different ways. The latest came the new alcohol laws in the beginning of 2018, which were a bit looser than the laws before that. Since there is need for cutting down the consumption, what could be a better way to do than to remove the alcohol from the products? Nowadays you can enjoy your beer without alcohol and avoid the bad effects of regular beer. (Maunu 2017.)

The trend of non-alcoholic beers has been continued for a long time. The growth has been seen over couple last years. Finns still buy beer a lot, but the products change gradually, and non-alcoholic versions take place. S-group's sales on liters on non-alcoholic beers have grown 30 % this year 2018. In comparison to this, the regular medium strength "keskiolut" beer's sales has gone down few percent this year. Kesko's sales in euros on non-alcoholic beers has grown 35 % since the beginning of this year 2018. (Pietiläinen 2018.)

Sinebrychoff, confirms the fact of growing sales on non-alcoholic beers. They have studied that consumers are more interested in health and wellbeing. That reflects on the growth of sales of non-alcoholic beers. People consume non-alcoholic versions with food and on social situations, but also as a recovery drink after sports. For that Sinebrychoff has created nonalcoholic beer brand "Crisp". The marketing was huge during autumn 2018. (Sinebrychoff 2018.)

The consumption situation of non-alcoholic beers came up with lot of sources found. Often the multipurpose perspective of non-alcoholic beers was mentioned. There are more situations you can enjoy non-alcoholic beer than the regular beer. It can be enjoyed during in regular everyday life. Such as at social situations, at work, during lunch and after sports. That has helped the trend to grow, because there is a lot of potential to sell non-alcoholic beers to use in situations, where you may not have even thought to have it.

Almost every second Finn says that non-alcoholic beer is at its best with food. 39 % thinks it's good with sauna. Third says it is good enjoyed for the thirst. Females are the majority with the food and sauna options, whereas males favor it for the thirst. Globally non-alcoholic beer is thought to be a recovery drink, but in Finland only 6 % thinks so. In Finland non-alcoholic beers are taxed as soft drinks, which is high compared to other European countries. That slows down the trend of non-alcoholic beers. All in all, the selection of non-alcoholic beers has diversified and grown a lot during last couple years. (Panimo- ja virvoitusjuomateollisuusliitto 2015.)

In Finland the growth is small compared to Europe. The number is less than 0,5 %. But the drinking habits are changing. The increase of sales of non-alcoholic beers in Finland have grown 20 % during 2010-2015. That is because of the health and wellness trend is growing, the consumers are looking for healthier options. Non-alcoholic beers have lower calories than regular ones and can be enjoyed in different kind of situations. (Panimo- ja virvoitusjuomateollisuusliitto 2015.)

The numbers of sales and the consumption of non-alcoholic beers have grown during the last years according to several sources mentioned above. It is clear, that the trend of non-alcoholic beers has grown and perhaps keeps growing in the future, when more breweries join the field with their own non-alcoholic versions. And when the Finns get more familiar with this new product category and adapts it more to their own personal lives.

### **2.1.2 How the non-alcoholic trend has grown abroad**

The trend of non-alcoholic beers has grown globally as well during past years. All the sources found and shown below in this section indicated that the trend of non-alcoholic beers has grown. There was not a single source found with negative results from the researches that had studied the non-alcoholic beer consumption or sales. This part does not include the drinking cultures from other countries, because the research will focus on Helsinki metropolitan area in Finland. It is necessary to understand the local culture to understand the current situation here. But it is not necessary to understand all the possible cultures all over the world.

In Germany Global market Intelligence agency Mintel has done a research on the taste of non-alcoholic beers. According to the research the stigma of drinking non-alcoholic beer is disappearing. Only one of ten consumers of German and French consumers claim that they are embarrassed of drinking non-alcoholic beers. One fourth of them says that the taste of non-alcoholic beer is as good as regular beer. Millennials are more aware of the health and wellbeing than older generations. Germany is now making high-quality non-alcoholic beers to answer to the demand. Choosing non-alcoholic beer in Germany has become a mainstream option. (B&T Weekly 2017.)

In Europe the non-alcoholic beers have become more and more popular. In Germany the consumption of non-alcoholic beers is 5 % of the total beer consumption. In Spain the same number is 10 %. (Panimo- ja virvoitusjuomateollisuusliitto 2015.)

In the USA, the negative effects of heavy drinking have been acknowledged. Heavy drinking has several negative effects. It may cause mental problems, exclusion, convictions and accidents, even fatal ones. In 2015 a research was made to raise the awareness of binge drinking and its downfalls. Pre and post data were collected from five schools and they participated Game On: Know Alcohol program. It included competition for promoting the benefits of using alcohol, program that modified incorrect knowledge and altered perceptions. There were significant improvements on alcohol knowledge and the attitudes towards heavy drinking had changed. The research showed the power of social marketing capacity to change drivers. (Dietrich, Drennan, Rundle-Thiele, Russell-Bennett & Schuster 2015.)

## **2.2 Health benefits & wellbeing aspects of consuming non-alcoholic beers**

This section focuses the health benefits of consuming non-alcoholic beers. This section has been divided different subsections according to which aspect of your life the consumption of non-alcoholic beers will benefit.

The health aspects were a huge factor studied in lot of the sources. The consumers themselves may not think the health aspects, besides avoiding calories and alcohol. But there have been several studies on the health benefits. The studies and researches are only in the beginning and the need for further studies is huge. There are several promising results from the researches mentioned below, but the reliability of them is not so trustworthy yet, because of the lack of deeper studies and bigger samplings of the respondents. (Franco, Bravo, Galá, Rodriguez & Cubero 2014.)

One important aspect on health benefits of non-alcoholic beers is the question on what the non-alcoholic beer will replace in one's life. If you replace a regular beer in your life with non-alcoholic beer, the results on your health will be positive. Non-alcoholic beers have less calories than regular beers, and you can avoid the bad elements of alcohol. But if you replace water with non-alcoholic beer, the results will be negative due to the more calories gained. Non-alcoholic beer contains calories roughly one third of a regular 5 % beer. The calories usually come from the residual sugar, or there can be added sugar to make the beer taste better. (Ziemann 2018.)

### **2.2.1 Effects on sleep and anxiety**

There were many different sources found that had studied the non-alcoholic beers effect on sleep and anxiety. All the studies found had used similar kind of pattern; one-week control time without having non-alcoholic beer and two weeks of drinking non-alcoholic beer and then comparing the results. No one had done longer research nor had much difference compared to other researches.

Beer is the only beverage containing hops, a plant with a sedative effect. The effect of the hops on sleep has been studied among stressed university students. For the first week their sleep was studied by using Pittsburgh Sleep Quality Index. They were asked to drink one non-alcoholic beer at dinner for two weeks after the control week. The results of the PSQI improved during the last two weeks compared to the control week. The results confirm that drinking non-alcoholic beer helps to improve the quality of the sleep. The main reason is thought to be the hops of the beer. (Franco, Bravo, Galá, Rodriguez & Cubero 2014.)

Another research confirms that drinking non-alcoholic beer favours the sleep quality. The research was conducted with healthy female nurses with irregular work shifts. This research brings a different viewpoint than the previous research. Nurses working nightshifts as well, faces bad sleep more often than regular working people. The overnight sleep was analysed by actigraphy. They were asked to drink one non-alcoholic beer during dinner for two weeks. There was another control group that did not consume non-alcoholic beer. The results were compared within these two control groups. The results showed that consuming non-alcoholic beer helps you sleep better. The sleep latency and total activity diminished within the ones drinking non-alcoholic beer. Anxiety decreased. This confirms that moderate consumption of non-alcoholic beer will help the quality of the sleep. It is because of the hops in the beer. (Franco, Sánchez, Bravo, Rodriguez, Barriga, Romero & Cubero 2012.)

There have been researches on how drinking non-alcoholic beer affects anxiety. That has been studied among stressed people. They were asked to rate their stress levels for one week for a control time and then to drink one non-alcoholic beer at dinner for two weeks. During the two weeks they rated their stress levels lower than during the control time. The urinary levels, that are found among people having anxiety disorders, decreased during two weeks of drinking non-alcoholic beer. The results are promising but are at very early stages. (Astrup, Estruch, Hendriks, Kok, Marcos, Solfrizzi & Sugravu 2016)

### **2.2.2 Other health benefits**

Non-alcoholic beers are good options instead of regular beer for after sports hydration and for a recovery drink. Beer works as a diuretic effect accelerating the need to urinate. There have been several studies that shows the stronger the beer the worse is the hydration. That is why non-alcoholic version hydrates your body better. That is why it works better after sports or for a thirst. There is no significant difference if the alcohol level was 0-2%, but the 4% ones can delay the hydration process. There is a need for further research to determine the exact numbers of percentages that influences hydration and urination. (Astrup, Estruch, Hendriks, Kok, Marcos, Solfrizzi & Sugravu 2016)

Not everyone thinks the same about the non-alcoholic beers as sports drinks. There is more potassium in non-alcoholic beer than in regular recovery drinks. If you get too much potassium during sports it may decrease one's performance. During a regular sport such as jogging or cycling, you will not gain any benefits of consuming non-alcoholic beer compared to water. Real sport drinks contain sodium, but non-alcoholic beers contain it very little. Non-alcoholic beers are good for thirst and to maintain the fluid balance, but not to drink during the actual sports. (Ziemann 2018.)

Drinking non-alcoholic beer may affect as a decrease in inflammation factors, decrease in blood pressure and as decreased homocysteine levels. The studies had been conducted with men aged 55-57. They drank 900 ml of non-alcoholic beer daily for four weeks. The hop-derived compounds, polyphenols, in the non-alcoholic beer are the main reason thought to be the reason for these results. The results are promising, but more research is needed before any conclusions can be made. (Astrup, Estruch, Hendriks, Kok, Marcos, Solfrizzi & Sugravu 2016.)

Non-alcoholic beer has been studied to have positive effects on breastfeeding. While beer itself is harmful for the baby, the non-alcoholic versions are good. Non-alcoholic beer stimulates secretion of prolactin, a hormone that enhances the production of a breast milk. The whole process is still quite unknown. Compounds derived from barley, which is a part

of the ingredients in beer, is thought to be the reason. You may also get higher antioxidant capacity of breast milk from drinking non-alcoholic beer. The researches were made as an experimental study with breastfeeding female. They drank 660ml non-alcoholic beer daily. The mothers benefited themselves, since the stress levels dropped due to the oxidative damage in their body decreased. There is a need for further research, but these results show, that consumption of non-alcoholic beer may have health benefits for both mother and her child. (Astrup, Estruch, Hendriks, Kok, Marcos, Solfrizzi & Sugravu 2016.)

In many countries there is a clear alignment that pregnant women should not drink non-alcoholic beers. In Finland there is no such an alignment. Though, it is recommendable to avoid alcohol. The best way to do so is to stick with the 0,0 % beverages rather than the ones up to 0,5%. (Ziemann 2018.)

You may think that replacing regular beer with non-alcoholic versions, you may easier to heal from alcoholism. But non-alcoholic beers are not recommended for people healing from alcoholism. People are different and may react to little alcohol with different ways. The main point is to avoid alcohol, so why to take a risk for example with the 0,5 %. The whole process of curing for alcoholism has a mental dimension. You may notice by drinking low alcoholic beverages that you are doing fine. Then you may go back to your old habits by tasting regular beer and the cycle has begun. Neurobiologically there is no risk or harm to consume non-alcoholic beers, but the mental aspect is huge. (Ziemann 2018.)

## **2.3 Brands and products in Finland**

This section focuses on the most known and sold non-alcoholic beers in Finland. It includes the products brewed by Sinebrychoff and Hartwall, because they are the pacemakers on this field in Finland. They are also big importers in Finland and some of those products are researched as well. It is impossible to say which stores sell which products, because there are so many different options to have from smaller breweries, from abroad and the stores can themselves select their products. That is why this section does not have all the possible products available but focuses on the few biggest brands available in Finland.

### **2.3.1 Products available in Finland**

This first section focuses on the brands and products that are studied in this research. Table 1 shows their information. There have been selected the leading Finnish brands as well some brands from abroad that sells well here in Finland.

Table 1. The researched products sold in Finland

The name of the beer	Producer	Country of origin	Type of the beer	Alcohol %
Lapin Kulta Zero	Oy Hartwall Ab	Finland	Lager, Dark Lager	0
KOFF Crisp	Sinebrychoff	Finland	Lager, Dark Lager, Wheat beer	0, Wheat beer 0,5
Beck's Blue	Anheuser-Busch	Germany	Lager	0
Heineken 0,0 %	Heineken	the Netherlands	Lager	0
Bavaria	Bavaria 0,0 %	the Netherlands	Lager	0

Hartwall was the first one in Finland to produce non-alcoholic beer in 2014, called “Lapin Kulta Arctic Malt 0,0 %”. It has been produced the same way as other alcoholic versions of Lapin Kulta. The non-alcoholism comes in the fermentation process by controlling the yeast in a way that alcohol will not form. The taste is malty and aromatic. (Hartwall 2014.) Nowadays the Arctic Malt has changed its name to be Lapin Kulta Zero Vaalea. (Hartwall 2018.)

Few years back Finnish brewing union had done a research that shows that almost every second Finn thinks that non-alcoholic beer is the best beverage with food. According to that research Finns think that non-alcoholic beer is good for thirst and for sauna. For that demand, 2016, Hartwall added to the Arctic Malt product family a darker option, “Tumma Lapin Kulta Arctic Malt 0,0 %”. It is sold in 0,33L dark brown cans. The taste includes toast aromas, caramelised malt, hop’s herbaceous. This is a lighter option with only 19kcal/100ml. (Hartwall 2016.) Nowadays the Arctic Malt has changed its name to be Lapin Kulta Zero Tumma. (Hartwall 2018.)

Finland’s most popular non-alcoholic beer used to be Sinebrychoff’s Nikolai. Sinebrychoff rebranded it recently to a new product family called Crisp. The family includes three different types of beer; a lager “KOFF Crisp Lager”, a dark lager “KOFF Crisp Dark Lager” and a wheat beer “KOFF Crisp Vehnä”. The lagers contain 0,0 % alcohol, the wheat one 0,5 %. They are sold in dark blue cans, with a different colour label on top to define the type of the beer. (Sinebrychoff 2018.)

A German brand, Beck’s, is the most exported beer from Germany. Beck’s is sold in over 120 different countries making it one of the fast-growing premium beer brands in the homeland but also abroad. They are only allowed to use the best ingredients. For example, the water must come from a glacial fountain 300 meters below. They have a non-alcoholic beer called “Beck’s Blu Non Alcoholic”. It only misses the alcohol; the taste is still fresh and malty. It is sold in 0,33L green glass bottles. In Finland you can taste Beck’s Blu in several bars. (Servaali 2018.)

Hartwall imports a Dutch brand to Finland, called Heineken. They have a non-alcoholic version Heineken 0,0 %. It is a lager with the taste of fruitiness, freshness and malt. It is made 100 % of natural ingredients with the Heineken's A-yeast. The beer reflects quality of a regular beer, just without alcohol. (Hartwall 2018.) It is made for the situations, where you normally could not have a beer. For example, you can enjoy it in a meeting, while driving or during sports. The campaign follows a slogan "Have a beer. Seriously, now you can." (Heineken 2018.)

Another Dutch brand, Bavaria, has its own non-alcoholic beer called Bavaria 0,0 %. It is imported to Finland by Servaali. The brewing process of Bavaria 0,0 % does not produce any alcohol, which leads to richer than the ones where alcohol gets removed afterwards. The high quality has been prerequisite for a long time. The recipe still respects the very original one. Bavaria has their own local fountain which water they use on production of the beers. They have their own malting plant. These factors affect the taste of Bavaria 0,0 % to be a unique. Bavaria is the biggest privately-owned breweries in the Netherlands and has grown a lot since its first years on 1719. (Servaali 2018.)

### 2.3.2 Products sold in the Finnish government owned retailer Alko

This section introduces the brands available in the Finnish leading alcohol retailer Alko. They are listed to the table 2. The products are not available in each store, but you can order them online to pick it up from your local store. The products are labelled non-alcoholic, but they may have up to 0,5 % of alcohol. (Alko 2018.)

Table 2. Alko's non-alcoholic beer selection (Alko 2018)

Producer	The name	Country of origin	Volume (L)	Package	Price (€)	Type of beer	Alcohol content (%)	EBU	Energy (kcal/100ml)
Bavaria	Wit Non-alcoholic	the Netherlands	0,33	Bottle	1,39	Wheat beer	0,0 %	6	20
Big Drop Brewing	Spiced Ale	England	0,33	Bottle	2,99	Ale	0,5 %	18	20
Binding Brauerei AG	Clausthaler Classic	Germany	0,33	Bottle	1,79	Lager	0,5 %	29	30
BrewDog	Nanny State	Scotland	0,33	Bottle	2,37	Ale	0,5 %	48	10
Heineken	Heineken 0,0 % Alcohol Free	the Netherlands	0,33	Bottle	1,58	Lager	0,0 %	13	20
Heineken	Buckler	the Netherlands	0,33	Can	1,54	Lager	0,5 %	12	20
Klosterbrauerei Neuzelle	Ginger Brause	Germany	0,50	Bottle	2,98		0,0 %	5	30
Krombacher Brauerei	Pils Non-Alcoholic	Germany	0,33	Bottle	1,65	Pils	0,5 %	19	30
Krombacher Brauerei	Weizen Alkoholfrei	Germany	0,50	Bottle	2,19	Wheat beer	0,5 %	9	30
Mikkeller	Drinkin' the Sun	Denmark	0,33	Bottle	2,80		0,3 %	38	30
Mikkeller	Henry and His Science	Denmark	0,33	Bottle	2,93	Ale	0,3 %	6	30
Moritz	Aigua De	Spain	0,33	Bottle	1,99		0,0 %	17	20
Oy Hartwall Ab	Lapin Kulta Zero Alkoholiton Vaalea	Finland	0,33	Can	1,16	Lager	0,0 %	11	20
Oy Hartwall Ab	Lapin Kulta Zero Alkoholiton Tumma	Finland	0,33	Can	1,16	Dark lager	0,0 %	11	20
Sinebrychoff	Koff Crips Tumma Lager	Finland	0,33	Can	1,49		0,0 %	22	20
Sinebrychoff	Koff Crips Vaalea Lager	Finland	0,33	Can	1,49	Lager	0,0 %	22	20
Warsteiner Brauerei	Premium Fresh	Germany	0,33	Bottle	1,76		0,0 %	17	20



EBU is short for European Bittering Units. It shows how bitter the beer is. The bigger the number, the more bitter the beer. The bitterness is linked to the hops in the beer. The more hopped the beer, the more bitter the beer. (Sinebrychoff 2018.)

It is interesting to see that Alko has only few non-alcoholic beers in their selection, even though they are the biggest retailer in Finland on beverages. That may be explained that they focus more on the beverages only they are allowed to sell, so over 5,2 % alcoholic beverages. Also, the selection of non-alcoholic beers is not very broad. The products come only from few biggest brewing countries from the world. Though beer is made in almost every country in the world. The table also shows the lack of local Finnish non-alcoholic beers. Alko only sells Sinebrychoff's and Hartwall's non-alcoholic beers. Where are the smaller breweries and why they are not producing their own non-alcoholic beers yet?

### 2.3.3 Results of different tastings of the products

Finnish news media Iltasanomat IS has blind tasted 10 non-alcoholic beers sold in supermarkets. The panel consisted of people from Oulu's beer association. The results are listed to the table 3. The winner was Scottish Innish & None Pale Ale. They rated the smell to be attractive and the taste to be pleasant. The least points got Beck's Blue. They claimed it was syrupy and had hints of grass in the taste. Finnish KOFF Crisp Vaalea got points 3/5, whereas Lapin Kulta Zero Vaalea got points 1,3/5. (Rintala 2018.)

Table 3. The blind tasting results organised by Iltasanomat (Rintala 2018)

Producer	The name	Alcohol %	Price €	Points 1-5	Country of origin	The store where bought
Innish & None	Pale Ale	0,0	2,14	3,50	Scotland	K-Supermarket
Lasso	Zero	0,0	0,54	3,30	Belgium	K-Supermarket
Bavaria	Premium Original	0,0	1,14	3,00	the Netherlands	K-Supermarket
Sinebrychoff	Koff Crisp Vaalea	0,0	0,85	3,00	Finland	S-Market
Heineken	Heineken 0%	0,0	1,59	1,80	the Netherlands	K-Supermarket
Finkbräu	Alkohol frei	0,5	0,34	1,60	Germany	Lidl
Hartwall	Lapin Kulta Zero	0,0	1,10	1,30	Finland	K-Supermarket
Brouwerij Martens	Rainbow vaalea lager	0,0	0,44	1,25	Belgium	S-Market
San Miguel	San Miguel 0,0 %	0,0	1,55	1,00	Spain	K-Supermarket
Anheuser-Busch	Beck's Blue	0,3	1,35	0,75	Germany	Lidl

The results are interesting. Tastings depend on the people tasting. With different experience and backgrounds, you may have different results. The assessors were beer enthusiasts, but there is no guarantee on their expertise of professionalism on the field of beverages. Other interesting thing is to see the prices of the products. They vary a lot. This tasting did not reveal from which particular stores the products were bought. In supermarkets

the prices may vary within the same chain in different stores. That shows how difficult it is to give an exact price to products. And though, the price may be a factor affecting the buying situation whether to buy the product or not.

The prices were discussed in the article. From the Lidl they went, they could only find two different kinds of non-alcoholic beers. Neither of them had 0,0 % of alcohol. The broadest variety of non-alcoholic beers were in the K-Supermarket they went to. All the products had 0,0 % labels. The cheapest options were sold in Lidl (0,34€), whereas the most expensive options were found on K-Supermarket (2,14€). (Rintala 2018.)

The results reflect the kind of Alko's non-alcoholic beer selection mentioned in the previous section. Once again, the products come only from the few same countries. There are several products that Alko sells, but other options as well. The products were chosen for this tasting from grocery stores, not from Alko.

Table 4. Me Naiset's non-alcoholic beer tasting by Iltasanomat (Kukkonen 2018)

The name of the beer	Alcohol %	Volume L	The price	The points	Country of origin
Clausthaler	0,5	0,33	1,89	3 1/2	Germany
Beck's Blue	0,3	0,33	1,59	3-	the Netherlands
St. Peters Without	0,0	0,33	1,89	3-	United Kingdom
San Miguel	0,0	0,33	1,59	3-	Spain
KOFF Crisp Tumma	0,0	0,33	1,34	3-	Finland
Paulaner Hefe-Weiss	0,5	0,50	2,69	2 1/2	Germany
Heineken 0,0 %	0,0	0,33	1,65	2+	the Netherlands
Easy Rider Bulldog IPA	0,4	0,33	2,49	1+	Sweden
Lapin Kulta Zero Vaalea	0,0	0,33	1,14	1+	Finland
A.Le Coq	0,0	0,33	0,80	1	Estonia
BrewDog Nanny State	0,5	0,33	2,59	1+	Scotland

The Finnish news media Iltasanomat had organized another non-alcoholic beer tasting. On this tasting the assessors were all women and part of the magazine community "Me Naiset". They rated the beers on the scale of 1 to 5. The results are listed in table 4. There were different kinds of beer from lager, dark lager to IPA and ales. None of the beers was thought to be really good. Some divided the opinions among the panel, but all the panelists were a bit disappointed on all the options. (Kukkonen 2018.)

These results may indicate that women do not like beer that much. Or these women selected for the tasting did not have much experience in beer. The article itself does not tell

what the backgrounds of these women in the panel were. Maybe the results would have been different if there were males involved.

Table 5. MTV's tasting on non-alcoholic beers (Jaatinen 2018)

The name of the beer	Country of orig	Alcohol %	Points 4-10
Saku Original	Estonia	0,4	8,6
Rainbow Vaalea Lager		0,0	8,3
KOFF Crisp Vaalea	Finland	0,0	8,2
Bavaria 0,0 %	the Netherlands	0,0	8,2
Lapin Kulta Zero Vaalea	Finland	0,0	8,0

A Finnish tv and news media MTV has done their own blind tasting on non-alcoholic beers. They only tasted lagers. The panel consisted of journalists of MTV. Some of the panelists said to never drink beer and some said to be beer enthusiasts. The results are listed to the table 5. The beers divided opinions. They used the school evaluation scale from 4 to 10. (Jaatinen 2018.)

The results of MTV's tasting differ a bit from the earlier Iltasanomat's ones. With the MTV one the results are more positive than with Iltasanomat's ones. With the MTV one the results were quite similar within the beers. There were not that much of dispersion within the beers. All the results were around 8, which is counted as good. Whereas Iltasanomat's one never exceeded 3/5, which does not sound so promising.

#### 2.4 Other interesting facts of non-alcoholic beer consumption

This section includes other researches from Finland and abroad focusing on the numbers of consumption of non-alcoholic beers. There have been researches on the most consumed type of non-alcoholic beer, the frequency of consumption of non-alcoholic beers, how the consumption divides with the genders and generations and how the non-alcoholic beer is doing compared to regular beer. By understanding how non-alcoholic beer is consumed abroad, it is easier to understand the situation here in Helsinki.

Hartwall conducted a research in the beginning of 2016. According to that male chooses low alcoholic beverages more often than female because it is healthier. The numbers gotten from the research shows that Finns alcohol consumption has developed to more moderate direction. 60 % of Finns chooses low alcoholic or non-alcoholic version at least occasionally. The health aspect plays a huge role, because alcohol level and calories go hand in hand. 17 % of men chooses low alcoholic version due to healthiness, whereas only 13 % of female do so. The results highlighted Finns wish to enjoy beverages without

getting drunk. From female gender one third said the reason for selecting low alcoholic version is to avoid getting drunk, whereas fourth of males said so. (Hartwall 2016.)

In the Netherlands the most consumed types of beer have been studied in the year 2017. About half of the respondents said to sometimes drink non-alcoholic beers. From those the Dutch people consumed 66 % of their non-alcoholic beers in beer mixes, such as Radler, 42 % as lager, 25 % as wheat beer and 20 % rose beer. (Ruigrok NetPanel 2017.)

In Germany the consumption frequency has been studied by VuMa Touchpoints. The results show that in Germany 70 000 people over 14 years old drink non-alcoholic beer weekly and over 2 000 000 people drink them several times a month. Most of the German population never drinks non-alcoholic beers. The research was made during years 2014-2017 and the data stayed quite similar over the years. (VuMa 2017.)

In the United Kingdom the third of the population has tried non-alcoholic beer. From the British female population 10 % drinks non-alcoholic beer weekly. From the Londoners 18 % drink non-alcoholic beer when they go out. London is the most inclined city in the UK to consume non-alcoholic beer over any other city in the UK. (M2 Presswire 2015.)

In the Czech Republic the in 2009 non-alcoholic beer production increased to be over 600 00 hectolitres. In 2008 the number was 579 000 hl. Whereas the total beer production decreased by 10 %. The downfall in the beer market did not affect in the non-alcoholic versions, they did well. The consumption of non-alcoholic beer represents almost 4 % of the total beer consumption in Czech Republic. (Kadicova 2010.)

In the USA in 2018 people from 30 years old to 49 were the biggest age group to consume non-alcoholic beers. There were over 20 000 respondents from which roughly 12 % had consumed non-alcoholic beer. Roughly 7 % of those were 30-49 years old, almost 5 % 18-29, and less than 1 % were older than 50 years old. (Statista Survey 2018.)

In Norway from 2015 to 2016 the sales of non-alcoholic beer had increased. The research focused on the sales volumes in Vinmonopolet stores, which is the government-owned alcoholic beverage retail. In 2015 the sales were 27 000 litres, where as in 2016 the sales were 39 000. (Vinmonopolet 2017.)

In Chile there has been a research about the sales volumes of non-alcoholic beer. The research was conducted in 2011 and 2016. In 2011 in Chile the sales value of non-alcoholic

beer was 3,4 million in U.S. dollars. Only in five years the number increased significantly. In 2016 the sales volume was 24,1 million U.S. dollars. (Euromonitor 2017.)

In Belgium in 2014 a research was conducted about distribution of the non-alcoholic beer consumption by frequency. There were roughly 2 000 respondents, from which 95% said they never drink non-alcoholic beer. 4,3 % said they drink non-alcoholic beer less than once a week. Once a week was answered only by 0,5 % of the respondents. The research focused on individuals living in private households in Belgium. 0,3 % said to drink non-alcoholic beer every day. (The Scientific Institute of Public Health 2016.)

### **3 Conducting the research**

#### **3.1 Target and objective**

The main objective is to create a consumer profile for an average non-alcoholic beer consumer. This will be done by conducting a research on non-alcoholic beer consumption in Helsinki metropolitan area and by analysing the results. The research will be done from the consumer's point of view. The profile can be used by other companies in the need of deeper understanding of the local consumers.

##### **3.1.1 The research questions**

The main research question is:

- What kind of people drink non-alcoholic beer in Helsinki metropolitan area?

The sub-research questions are:

- Why do they drink non-alcoholic beers?
- What kind of non-alcoholic beer products do people consume?

The main research question looked into demographics of the consumers. The target was to find out what kind of people they were who drink non-alcoholic beers, what were their backgrounds and state of life right now. The current drinking habits were researched as well to find out how the non-alcoholic beers affected their lives. It was studied if non-alcoholic beers work as replacement for alcoholic beverages. All comes back to who these people were who drinks non-alcoholic beers and what their lives were alike. With the right questions in the research questionnaire it was possible to find out what the non-alcoholic beer consumers were alike.

The sub-research question "Why do they drink non-alcoholic beers?", looked into the reasons why people drink non-alcoholic beers. The exact reasons were studied that affect on choosing non-alcoholic beer to be consumed. This part included aspects on health and wellbeing, because people were looking for healthier life. That factor may have be very important on the decision making whether choosing regular or non-alcoholic version. This research question included the drinking habits and the situations when consuming non-alcoholic beers may have affected the decision on choosing non-alcoholic version.

The sub-research question "What kind of non-alcoholic beer products do people consume?" looked into the actual products people consume. The aspects of each products were studied to find out exactly what products people like and why did they like them. It was important to see what aspects consumers prefer in the products, that they could be

developed to be even better. The producer may have not thought in the consumer's way, which may have led to a gap between the producers and consumers. With this research the gap was tried to be narrowed down by understanding the consumers better. There were some products researched separately and left space for open comments on other products. Since there were many different kinds of products available from different producers, it was impossible to research them all individually.

The research focused on Helsinki metropolitan area in Finland. This way the results gave deeper understanding, because the area was narrowed down. There might have been difference between other cities in Finland. If the area would have been the whole Finland, there would have been need for way more respondents from all the areas to get reliable data. There were the greatest number of restaurants, stores and consumers in Helsinki metropolitan area than in any other city in Finland. This meant there were the most amount potential companies in the need for this research.

### **3.1.2 The relevance of this research to the industry**

Only the biggest breweries have their own non-alcoholic beers. That might be because of lack of knowledge on the possible customers. Brewing non-alcoholic beer requires new kind of knowledge from the breweries. The process is not easy compared to regular beer, because the alcohol has to be removed and that affects the taste of the beer. It is hard work to get the taste balanced without alcohol. That is why many smaller breweries have not gone to that direction yet. They might be waiting the trend to grow even more, so that there would be more sense to start brewing non-alcoholic versions. It might be too big of an investment to brew non-alcoholic beers because smaller breweries might have to invest in equipment, knowledge, even on employees and on the researches. This thesis is made to help them understand their potential customers that consumes non-alcoholic beers. With the knowledge gained from this research breweries may develop their non-alcoholic beers to taste better to the consumers.

Restaurants may benefit from this research. Not all the restaurants nor bars have non-alcoholic beers in their selection or the selection is very poor. Often only one or two options. The restaurants may think to broaden their non-alcoholic beer selections to meet better the customer wishes and requirements if necessary. With this research they can see what products people like, so they can verify their selection to taste more to the customers.

The same idea is with the shopkeepers. Grocery stores and supermarkets often have better selection of non-alcoholic beers than an individual restaurant. That is of course due to

the fact that shops have more shelf space, there is room for wider selection. The shopkeepers may benefit from this research if they broaden up the selection to fit in their customer segments and their preferences.

### **3.2 Methods – a quantitative Webropol questionnaire**

The research was conducted as a quantitative survey. The research survey was done by the online tool Webropol 2.0. Haaga-Helia University of Applied Sciences had a license with Webropol and that was the main reason for choosing it to be the tool for this research. The usage for this research was free of charge, which suits on a student budget. The tool had the needed aspects to analyze data.

Webropol 2.0 had a lot of good qualities needed for this research. It was easy to use and the instructions were clear. You could do several different kinds of questions with Webropol to get the exact answers needed. With Webropol it was easy to analyze the data. It grouped the answers on the survey questions and from those you could see the average answers on each question. This saved a lot of time on analyzing compared on making the survey by hand. With Webropol 2.0. you could cross analyze data to see differences for example between on how genders or different age groups behave. Webropol was chosen also for its ethnicity. It allowed to collect data anonymously in a way that the respondents did not have to leave their personal details.

#### **3.2.1 Planning the survey**

The survey, that is in Appendix 1, was divided into sections. Each section focused on one topic. The topics followed the order of the theoretical part studied earlier in this report.

##### **Demographics**

This section on the survey looked into the backgrounds on the people answering the questionnaire. The focus was the main research question on what kind of people drink non-alcoholic beers in Helsinki metropolitan area. With the questions on this section, it could be studied who these people were. The main focus was on the demographics of the consumers, such as age, gender, place of living and the income levels.

##### **Drinking habits**

This section the survey looked into the general drinking habits of the consumers. It was studied if the alcoholic drinking habits affect somewhat to the consumption of non-alcoholic beers. The non-alcoholic beers may be replacement of alcoholic beverages and that



is why it was good to look into the consumer's alcoholic drinking habits as in order to understand their non-alcoholic beer drinking habits.

#### Non-alcoholic beer

This section on the survey focused totally on the consumer's non-alcoholic beer consumption. It focused to the sub-research question on why people consumed non-alcoholic beers and what were their habits on this field. Part of this section was related to the "brands and products" section later on. This section gave answers to general questions of consumption of non-alcoholic beers, whereas the "brands and products" focuses on some specific products.

#### Health and wellbeing

This section on the survey focused on the health and wellbeing of consuming non-alcoholic beers. The questions on the survey were based on the results found on the theoretical part earlier on this report. The main focus is to understand if consumers were even aware of the possible health benefits and to make them more known within the consumers. According to the studies introduced earlier, there was need for further and deeper studies. This is why this section in the survey was kept quite broad and short without the intention to actually study if the respondents on this survey find positive impacts of consuming non-alcoholic beers on their lives.

#### Brands and products

This section on the survey focused on the second sub-research question on what products people consume. There were five example products that have been introduced in table 1 in theoretical part. The respondents answered questions related to those products. Those questions defined whether the consumers liked the product and what was there to be improve to make the product fit more to the consumer's preferences.

### **3.2.2 How the respondents were reached**

Participants to this survey were reached online due to its simplicity and time saving issues. An online Webropol survey could be answered within ten minutes and the results were immediately available to be seen. Online was the simplest way to get respondents. It was easy for the participant. The survey could be answered on any online platform and on all the devices from computers to mobile phones. They could answer to it anywhere with their own device without having any other contact to the survey or the research. The online survey was great for its anonymity. You did not have to see the researcher, nor they knew who you were. or know who you are.

The easiness was not only for the participant. The researcher benefited a lot from it as well. With the correct tool you could see immediately what people have answered. The tool did the data collection in real time. It did not matter how many respondents there were, the workload for the researcher did not change, because the tool did everything for you. Several people may have opened the link and answered the survey at the same time. When the link to a survey is posted online, you as a researcher could just sit down and wait for the answers. That though required promoting the survey well to the right target audience in order to get the people to answer.

There were some downfalls as well on choosing online survey. When posting a link to Facebook or other social media, it depended a lot from the platform how well and how long the post was within the latest posts. For example, on Facebook group if there came new posts every minute, your post disappeared quite fast to be unreachable from the later users. The more comments you got, the more publicity the post got. In Facebook groups there were rules on promoting and what was accepted to post.

Not everyone has Facebook nor follows it regularly. This research may lack the elderly people, because they do not use Facebook. On Facebook it was the easiest to reach people who read your posts right when you posted them. After a while your post disappeared under new posts, so that new people could not find it. This created a situation where you should have promoted your posts to reach new people. Then the rules of Facebook groups got into the way, where promoting the same post was not allowed.

When people read your post, they needed a reason to actually answer to the survey on the post. Many people needed to be benefited from it or otherwise they did not use their time to answer. Why would you answer to a stranger's questionnaire to waste your time? In this research the groups to post were selected to have people's backgrounds or interests in beer, which hopefully created willingness to fill the survey, because their interests were linked to the topic.

## Facebook

Facebook groups were the main channel to reach responses, because it was one of the biggest Social Media channels and that was why lots of potential respondents could be found. There were several good groups with possible respondents to this survey. The groups were an effective way to narrow down the users and to find the people you were looking for. Often a certain group had purpose and it connected the similar kind of people together. That is how you could narrow down and reach people for example by their loca-

tion, hobbies and interests. In below are the groups the survey was shared to and the reasons why those groups were thought to be effective on getting possible respondents to this research.

#### Olutliitto - kuluttajan asialla

This group was chosen because of its relevance to this research. It was the official group for “Olutliitto”, which was a nationwide and independent association that tried to defend the rights of beer consumers, cherish the beer culture and to maintained the diverse variety of beers in Finland. (Olutliitto 2018.) Within this group it could be reached over 3 000 beer enthusiasts, who hopefully drinks non-alcoholic versions of as well. Helsinki metropolitan area is the most populated area in Finland, and that is why quite many participants related to this research could be reached through this group.

#### Helsingin hotelli ja ravintola-alan sisäpiiri

This group’s members were working or interested in the restaurant and hotel field in Helsinki area. These members most likely had gained knowledge on non-alcoholic beers through their work or their personal interest in beers. The group had over 1 300 members, which means there was a lot of potential participants to the survey.

#### Puskaradio Helsinki, Puskaradio Vantaa, Puskaradio Espoo, Puskaradio Grani

These groups were chosen to its relevance to this research. These were groups related to the cities in Helsinki metropolitan area. Their aim was to connect the locals together. With these groups the local non-alcoholic beer consumers could be reached. These groups were the best options to reach the regular non-alcoholic beer consumers without professional background in beers. These groups had 5 000 – 33 000 members, which meant there were a lot of potential respondents to this research. The high number of members could mean difficulties to this research. There were lots of new posts each day. That meant the post disappeared quite fast from the top posts.

### **3.2.3 Testing the survey**

Before the publishing the survey, it was tested by five participants. They were given extra questions to think about. They were asked to look for spelling mistakes. Different persons found different mistakes. In total roughly 5 spelling mistakes were found and corrected. They were asked if the understood every questions and options and if they thought some things should be said differently. There were some lines they understood but suggested better wordings. These were corrected.

Before the testing phase the survey was quite long. That is why the testers were asked to think about questions that could be removed, questions they thought to be most invaluable. According to those responses, some open-ended questions were removed and on the product section the “Have you heard about the product?” and “Have you tasted the product?” were merged into one question. That brought the number of questions on the survey down by 5 questions.

They were also asked if they thought there was anything else to be asked or answer options to be added. One suggested to add more options to the products from the Lidl stores. This was not done, because originally there were eight different products. Those were cut down earlier to five because the survey was too long.

All in all, everyone gave good feedback. They said the survey and the language it was very good. They thought the variety of questions and answering options were very wide. With those they were very pleased. The survey was ready to go with some small detail correlations from their opinion. It was good to test the survey. With testing the spelling mistakes could be avoided. It was more comfortable to publish a survey without spelling mistakes and it give more professional touch to the survey.

After testing the survey, it was published to the chosen Facebook groups. On 15<sup>th</sup> of October 2018 it was published to "Olutliitto – kuluttajan asialla" and "Helsingin hotelli- ja ravintola-alan sisäpiiri". On the 18<sup>th</sup> of October 2018 it was tried to publish to all the local "Puskaradio". To "Puskaradio Grani" it got published right away. For the Helsinki one it was allowed to be published on the 19<sup>th</sup> of October. Other groups never gave the permission to post to their groups. It was not published again, because the first posts got enough responses. The survey was closed and the Facebook posts deleted on the 26<sup>th</sup> of October 2018.

## 4 The results

In total there were 342 responses to the survey. The survey was successfully published in Facebook to groups “Olutliitto - kuluttajan asialla”, “Helsingin hotelli ja ravintola-alan sisäpiiri”, ”Puskaradio Helsinki” and ”Puskaradio Grani”. ”Puskaradio Espoo” and ”Puskaradio Vantaa” never gave permission to post the survey to their Facebook groups.

27 responses were disqualified from the respondents, because they were living outside the Helsinki metropolitan area. Two responses were disqualified, because they had never tasted non-alcoholic beer. That left 313 (N=313) qualified respondents to the research on the consumption of non-alcoholic beers in Helsinki metropolitan area. In other words, all of the 313 respondents lived in Helsinki metropolitan area and have tasted non-alcoholic beer.

### 4.1.1 Demographics

The majority (56 %) of the respondents lived in Helsinki, followed by Espoo (18 %) and Kauniainen (16 %). Vantaa was represented with fewer respondents (7 %). The respondents from Espoo and Vantaa may have stayed lower, because the survey was never allowed to publish their local Facebook groups “Puskaradio Espoo” and “Puskaradio Vantaa”. Kauniainen is smaller city with way lower population than Espoo and Vantaa, so the amount of 50 respondents was relatively high compared to the rates from Espoo and Vantaa. Two respondents did not answer to this question.

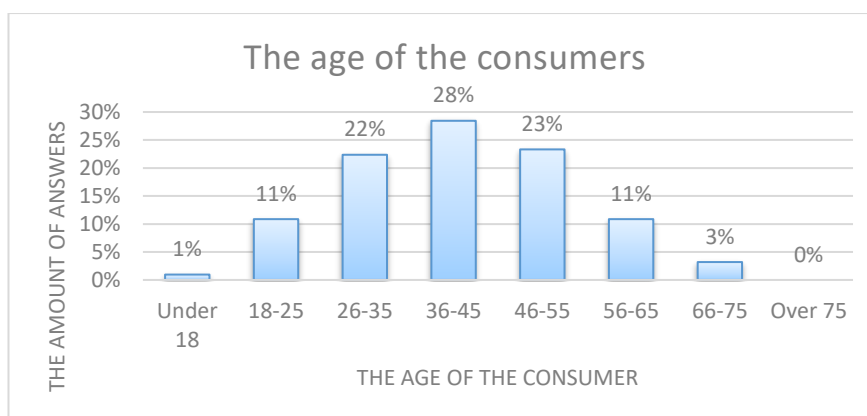


Figure 1. The age of respondents (N=313)

The median in the age was the option 36-45 years old as you can see in figure 1. It was chosen by 28 % of the respondents. There was not much difference between the ages from 26 to 55. All the age groups from those ages were presented well. 1 % was presented from the age group of under 18 years old. There is no law in Finland that you could

not sell non-alcoholic beers (0-0,5 % of alcohol) to under age people, so those respondents may have tasted non-alcoholic beers.

The majority of the respondents (59 %) were female. Males were presented by 41 %. Only 1 % stated their gender to be “other”. The majority of respondents (59 %) had at least one child. 38 % stated the children were living within the same household and 21 % stated their children were not living with them. 41 % stated not to have children.

The majority of the respondents had completed higher education. 40 % had a degree University of Applied Sciences and 19 % from university. Vocational school was completed by one fifth (20 %). Only 9 % stated their highest degree to be from high school, whereas only 3 % stated it to be comprehensive school. That may have been related to the age variety of the respondents. The older the majority of the respondents were, the more schools they have had time to complete in their lives. One of the respondents did not answer to this question.

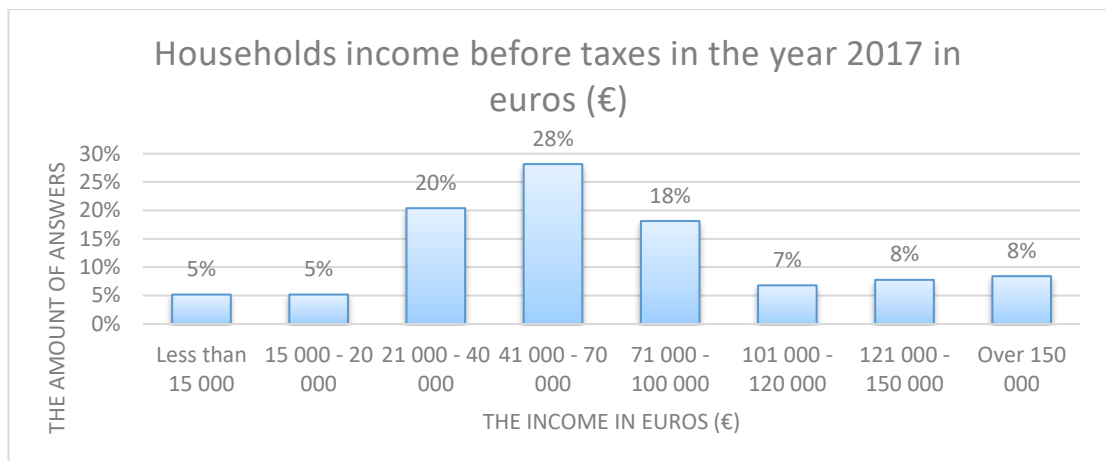


Figure 2. Households' incomes before taxes in the year 2017 (N=313)

The figure 2 shows the income levels of respondents. The majority of the respondents' households' incomes during the last year 2017 were from 21-100 000 euros. The highest peak (28 %) was with the households earning 41 000 to 70 000 euros a year followed by 21 000 to 40 000 euros per year (20 %). The third was 71 000 to 100 000 (18 %). All the other options from the both ends had 8 % or less responses. Four respondents did not answer to this question.

#### 4.1.2 Drinking habits

Almost everyone (93 %) said to drink alcohol, whereas only 7 % said not to drink alcohol in general. Those 7% though said to have tasted non-alcoholic beers. Two respondents did not answer to this question.

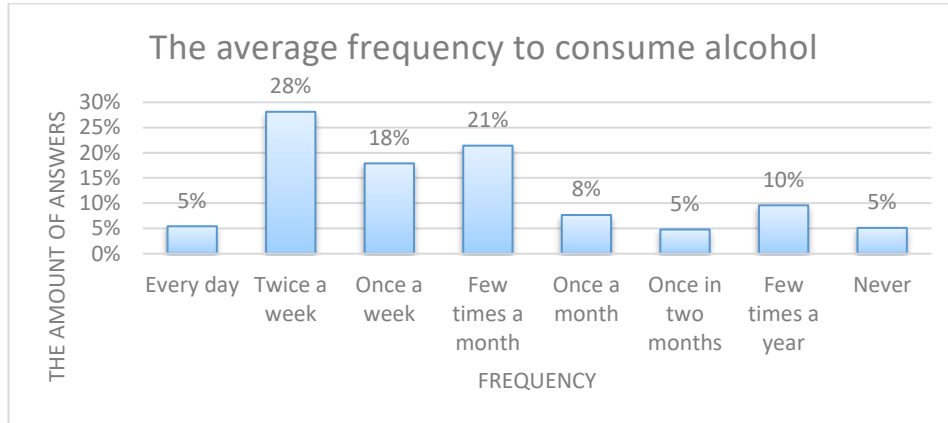


Figure 3. The average frequency to consume alcohol (N=313)

Figure 3 shows the frequency to consume alcohol. The majority of the respondents (28 %) consumed alcohol on average twice a week, followed by the few times a month (21 %) and once a week (18 %). It could be said that the majority (81 %) consumes alcohol at least once a month or more. Few times a year (10 %) popped up interestingly, because those people have consumed non-alcoholic beers even though they did not drink alcohol very often. There were some contradictory answers to the previous question on if you even drink alcohol. In the appendix there is the questionnaire with numbered questions. In the question number nine, 5 % answered never to drink alcohol, whereas in the question eight, 7 % stated so. This might be because on the previous question people have thought to drink so seldom alcohol, that they have decided to choose the “no” option and in the following question they have noticed the other options and chosen for example the “few times a year” option.

Females tended to drink more seldom alcohol than males. Females (42 %) consumed alcohol at least once a week, whereas from males more than half (64 %) did so. One fourth of female (25 %) consumed alcohol few times a month, whereas with males the number had dropped to 16 %, because most men consumed alcohol more often. From females one third (32 %) consumed alcohol once a month or more seldom, whereas from males 21 % did so.

The majority of the respondents (39 %) drank one or two doses of alcohol when they consumed alcohol. “3-4” got 29 % of the answers and “5-6” 15 %. Less people (5 %) drank 7-8 alcoholic doses at one go, whereas almost the same amount (6 %) stated to drink more than 8 doses. 5 % stated not to drink alcohol. Females tended to drink less doses of alcohol. 46 % of females said to drink only one or two doses, whereas males’ percentage on that was 30 %. The heavier drinkers were most likely male. 12 % of males drank on average over 8 doses of alcohol, whereas only 1 % of female did so.

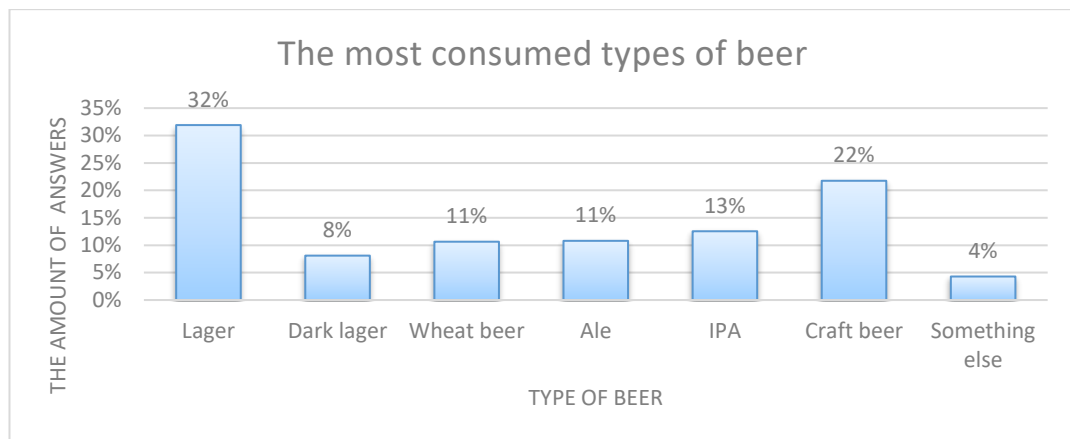


Figure 4. The most consumed types of beer (n=310)

The most preferred type of beer was lager (32 %) as can be seen on figure 4. It was followed by IPA (13 %), Ale (11 %), wheat beer (11 %) and dark lager (8 %). Respondents may have chosen up to 3 options which allowed there to be more variety in the answers. There were some comments on the Facebook posts on how the list was missing many types of beer. There was an open-ended question where you could list your preferred beer. There only 7 % left comments, which related to that the most popular types of beers were listed already. Non-alcoholic beer was mentioned there few times (1 %) and gluten free beer few times (6 %). Pils, sour, lambic and stout were mentioned few times. Many people (22 %) preferred craft style beer over mass produced beers. Three respondents did not answer to this question.

Both females (62 %) and males (69 %) preferred most the lager type of beer. Males preferred ales (33 %) and IPA (39 %) more than females (14 %, 17 %). Females preferred more wheat beers (24 %) than males (17 %). Craft beer was preferred by both genders, but a bit more by males (46 %) than females (43 %).

#### 4.1.3 Non-alcoholic beer

The majority of the respondents (46 %) drank non-alcoholic beer few times a year as can be seen on the figure five below. The second most popular option was the “few times a



month” with 18 % of the answers. The more frequent options were well presented as well; twice a week 8 %, once a week 6 % and every day 2 %. Once a month was chosen by 9 % of the respondents. It could be said that almost the half (42 %) consumed non-alcoholic beers at least once a month or more often. That shows the survey had reached the right kind of people, who really consume non-alcoholic beers regularly.

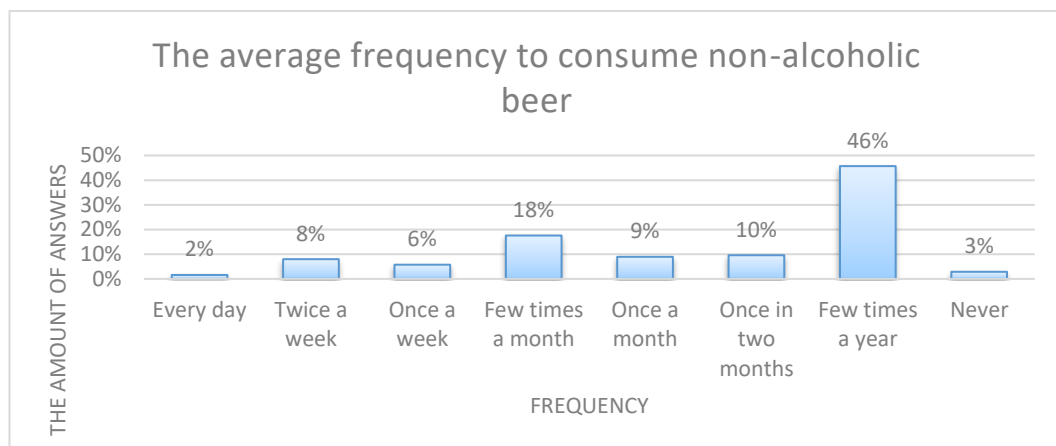


Figure 5. The average frequency to consume non-alcoholic beer (N=313)

3 % of the people stated never to drink non-alcoholic beer regularly. But in the beginning of the survey they had stated to taste non-alcoholic beers. That may have been from the reason that they have tasted non-alcoholic beer but do not drink it regularly. The consumption has stayed within the tasting for the first time and they have not consumed non-alcoholic beers after that nor they have not developed any repetitive habits to consume non-alcoholic beers frequently.

On the weekly base’s males tended to drink more non-alcoholic beers. 10 % of females said to drink at least once a week, whereas within the males the amount was 21 %. Females only won to drink more non-alcoholic beers on the few times a year option. Roughly half (52 %) of the female respondents stated to drink non-alcoholic beers only few times a year, whereas males’ percentage there was way lower (38 %). That was because males have chosen more options from the more frequent options. Males percentage on the more frequent options were always higher than the females. That showed males tend to drink more non-alcoholic beers than females.

Non-alcoholic beer has been most consumed when going to sauna (44 %), with food (41 %) and for the thirst (28 %). It was also consumed when going out (21 %) and at situations where alcoholic drinks were not recommendable (20 %). The least consumed it was

as an after-sports recovery drink (7 %) and at celebrations (12 %). People may have chosen several options to select their favourite consumption situation. Five of the respondents did not answer to this question.

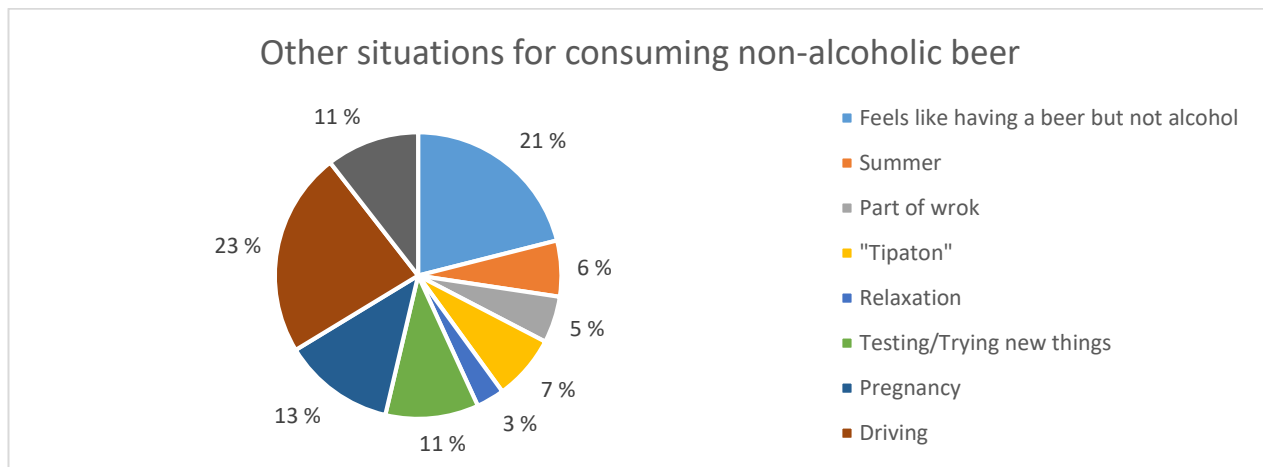


Figure 6. Open-ended comments on the situations non-alcoholic beer is consumed (n=78)

There was an open-ended question, where one fourth (25 %) left their comments. The results can be seen on the figure 6. Situations, when you needed to drive a car (23 %) was popular as well as the situations where you felt like having a beer but could not or did not want to have the alcohol (21 %). Among the female the pregnancy (13 %) was a popular reason to drink non-alcoholic beer. "Tipaton" (7 %) is a Finnish way try to avoid alcohol for a certain amount of time, usually a month, that often takes place in January after the pre-Christmas celebrations, when you have consumed too much alcohol. There was not much difference with females and males, except females (15 %) tended to drink non-alcoholic beers more as celebratory drinks as males (6 %).

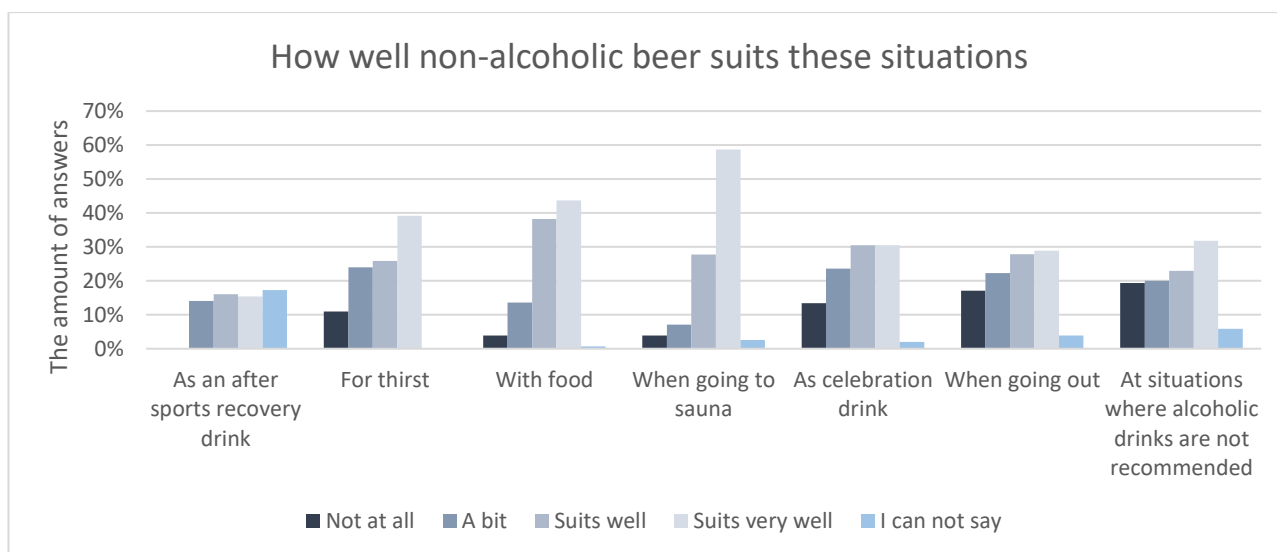


Figure 7. How non-alcoholic beer suits these situations (n=311)

Non-alcoholic beer was thought to be at its best to enjoyed when going to sauna. 59 % said it suits to sauna situations very well and 27 % to suit the situation well. Very few (4 %) claimed it not to suit at all to sauna situations. Non-alcoholic beers were thought to suit with food as well. Very few (4 %) claimed it not to suit at all to be enjoyed with food. The majority of the respondents (63 %) said it to suit at least a bit or more. The responses to with food and at sauna were quite similar, but sauna won. The least non-alcoholic beer suited for after-sports recovery drink. 37 % said it not to suit at all, whereas 13 % stated it to suit only a bit. The recovery drink was the only question to really divide the opinions. "I cannot" say was chosen by 17 % of the respondents. That might have been because people have not tried nor had the knowledge of non-alcoholic beer to have health benefits if enjoyed after sports. Usually alcohol and doing sports are not to be thought to suit together and that image may have affected on how people have answered to this question. Few of the respondents did not answer to all the options. The answer rate varied from 305 to 311 responses.

The most divisive situations between females and males to consume non-alcoholic beers was the option when going out. Almost one third of males (28 %) stated it not to suit at all, whereas from females only 10 % chose that option. The suits well option was chosen by one third of females (33 %) and only by one fourth (21 %) of males. This was reflected to the statement made before, where males were said to drink more heavier than females. When males went out, they did not like to drink non-alcoholic beer that much, they wanted to have alcohol.

Non-alcoholic beer replaced the most often an alcoholic drink. The most often it was a regular beer (48 %) or some other alcoholic beverage (20 %). High amount of soft drinks (16 %) were replaced too with non-alcoholic beer. Juice and soda were both replaced by 6 % and 4 % replaced water. Only very few stated in the open-ended option that non-alcoholic beer was not a replacement for some other drink (1 %). In this question people may have chosen up to three different options, because depending on the situation, the replaced drink may vary. Four of the respondents did not answer to this question at all. There was not much differences between females and males. The only option with bigger difference was that females (10 %) tended to replace water more often with non-alcoholic beers than males (4 %).

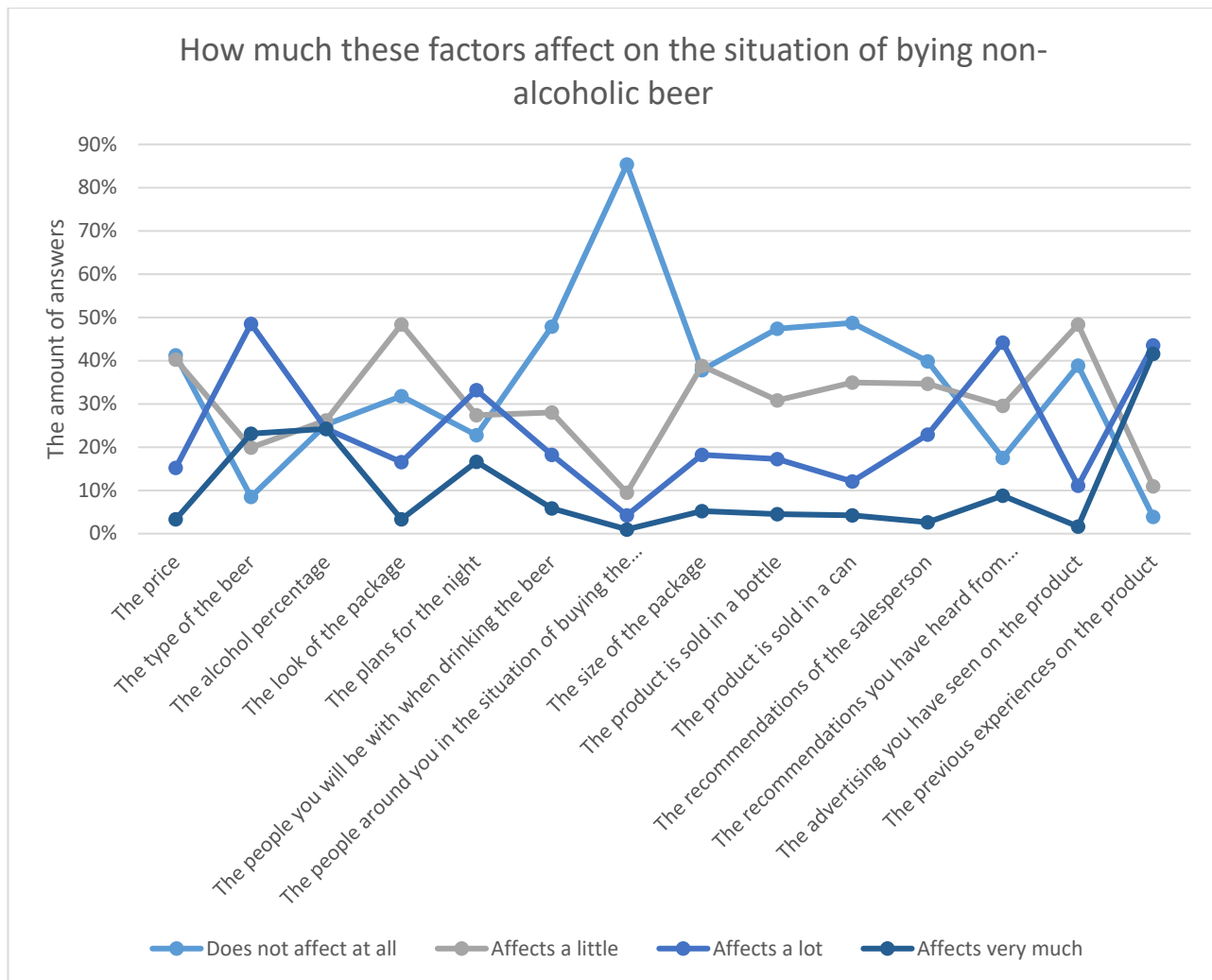


Figure 8. How much different factors affect the buying situation of non-alcoholic beer (n=312)

As can be seen from the figure 8, most of the factors did not affect the buying situation very much. The darkest blue line shows how many people have selected “affect very much” and it was on the most cases the lowest line. On the other hand, the clear blue line “does not affect at all” was quite high at many factors. The very highest peak was with the people around you in the buying situation. Its median answer was the “does not affect at all”. That showed that people bought non-alcoholic beer, because they wanted to and were not shamed to buy it. People have not cared about other people opinions when they have bought non-alcoholic beer. Most of the factors affected a little on the buying situation. The most affective factors were “the type of beer”, “the recommendations you have heard from somewhere else” and “previous experiences from the product”. Their median was the answer “affects a lot”, whereas all the other factors medians were the factor “Affects a little”. The affective factors showed people tended to buy the type of beer they like or prefer, and the experienced experiences on the products were important. It did not matter so much if you have experienced the product yourself, but people tended to trust other

people opinions as well, when making the decision on buying non-alcoholic beer. One of the respondents did not answer to this question.

Females trusted more on the salesperson's recommendations on the products. Their percentages were higher than males on each option, except the "does not affect at all". Half (51 %) of males did not listen to salespersons recommendations. Females trusted other people's opinions on the products as well more than males. Half (50 %) of females said they affect a lot, whereas from males only 35 % said so. The size of the package affected more females' choice to buy non-alcoholic beers than males. Only one third (31 %) of female said the size does not matter at all, whereas almost half (46 %) of the male said so. This might have been because females were more often aware of the calories. They might have preferred smaller packages because of fewer calories.

The majority of the respondents (72 %) drank non-alcoholic beer to replace an alcoholic beverage. High amount (56 %) chose it to avoid getting drunk, whereas only 21 % chose non-alcoholic beer to avoid hangover. Those were linked in a way that if you do not get drunk, you do not get hangover. But people thinks differently which one was more important to them. Quite many people liked to try new things (22 %) and used that as a reason to choose non-alcoholic beer. Health benefits (15 %), having children around (14 %), to replace some other non-alcoholic beverage (15 %) and the taste of non-alcoholic beer (13 %) were well chosen as well. The price that is cheaper than with regular beer, did not affect much (2 %) on choosing non-alcoholic beer. There was an open-ended question, where driving (2 %) and pregnancy or nursing (2 %) popped up. People could answer up to three options. One of the respondents did not answer to this question.

The majority of the respondents (86 %) bought non-alcoholic beer from the grocery stores. Many consumed and bought non-alcoholic beer in the restaurants (36 %). From Alko only 11 % bought non-alcoholic beer. Very few ordered online (1 %) or from abroad (1 %).

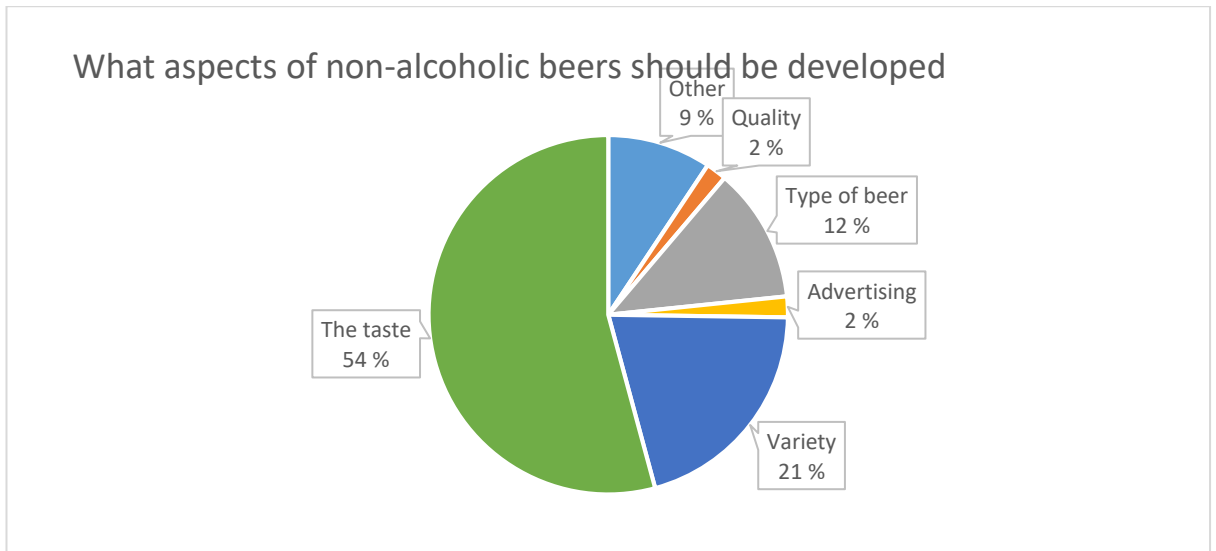


Figure 9. How consumers would like to develop non-alcoholic beers (n=89)

Almost one third (27 %) had opinion on how to develop non-alcoholic beer. Their opinions can be seen on the figure 9. The biggest factor that popped up was the taste (54 %). Many thought the taste to be too dull, non-alcoholic beer should taste more like an alcoholic beer. Some brought up that non-alcoholic beers taste too sweet. Many did not specify how they would develop the taste, only that the taste should be developed. The variety of the selection of non-alcoholic beers (21 %) should have been broaden up. Some wished the selection in the stores should be wider, some thought in the breweries level that more breweries should have started to make more non-alcoholic beers. The variety of the types of beer (12 %) were mentioned and wished to be wider. Most of the non-alcoholic beers available were just lagers and people wished for other types of beers as well. Only very few (2 %) brought up the quality of non-alcoholic beers to be developed. On the other hand, many (8 %) mentioned separately that the quality was already good, even though that was not asked. They mentioned the quality but gave other aspects to be developed.

The majority of the respondents (58 %) would have consumed non-alcoholic beers more if the variety of selection would have been wider and if they tasted more like regular beer (52 %). Many would have consumed more if non-alcoholic beers were advertised better (19 %), they were cheaper (18 %) and if people knew more about the products and non-alcoholic beer in general (14 %). The advertising is linked to knowledge. With advertising you can bring knowledge and awareness to consumers. 8 % stated they would have not consumed more even if some aspects would have been differently. They were happy with their current amount of consumption. 7 % did not answer to this question and people may have chosen up to three options.

Males (65 %) wished the most the taste of non-alcoholic beers to be more like regular beer. Females wished for wider selection of non-alcoholic beers (62 %), the taste to be more like regular beer (44 %). Females (21 %) wished way more than males (5 %) that they would have known more about non-alcoholic beers. Females (24 %) wished also for more and better marketing than males (11 %). Those were once again linked together. With the right marketing you could have brought knowledge to your customers.

#### 4.1.4 Health & Wellbeing

The majority of the respondents stated their current rate of health to be good (55 %) or excellent (24 %). Moderate was stated by 20 %. Only 1 % stated it to be bad. One of the respondents did not answer to this question. The majority were interested in the health benefits of consuming non-alcoholic beers. 22 % were interested, whereas 30 % were interested but would have liked to know more about the health benefits. 10 % were interested only if the benefits were positive. Quite many (27 %) were not interested at all and some (12 %) did not even believe in them.

Table 6. The health benefits on consuming non-alcoholic beers (n=312, 308)

The health benefit	Have heard	Have noticed
Improvement of the sleep quality	12 %	7 %
Remission of the anxiety	5 %	4 %
Enhanced production of breast milk when nursing	18 %	4 %
As a recovery drink	22 %	5 %
Heart issues (such as decrease in blood pressure)	7 %	1 %
I have not heard about any of these health benefits	62 %	84 %

This table shows combined answers on the survey questions 23 and 24. The middle row shows how many have heard about the health benefits and the right row shows how many people have experienced these health benefits on their own lives. The majority (62 %) have not even heard about the health benefits and that way the majority (84 %) have not experienced the health benefits. The most interesting was to see that almost everyone who have heard about the remission of anxiety (5 %) have experienced it themselves (4 %). The same was with the improvement of the sleep quality. 12 % have heard and from those 7 % have experienced it themselves.

Enhanced production of breast milk (18 %) and as a recovery drink (22 %) were the best known. Those could have not been experienced by everyone who knew about them, which may explain the lower number of the experiences (4 % & 5 %). To experience the

enhanced production of breast milk you have to be female and have a baby. To have a recovery drink you must do sports first. The health benefits could be more experienced if people knew more about them. Many people may have had positive issues but have not been able to link it to the consumption of non-alcoholic beer, because they have lacked the knowledge on health benefits.

Females (25 %) had heard about more about the enhanced breast milk than males (9 %). But males (28 %) had more heard about the recovery drink benefits than females (17 %). This might have been because females were more aware and interested in pregnancy related things, because they are the ones having babies. Males are more often thought to be more interested on sports than females.

#### 4.1.5 Brands & products

This section focuses on the results on the five products studied: Heineken 0,0 %, Beck's Blu, Bavaria 0,0 %, Koff Crisp Vaalea and Lapin Kulta 0,0 % Vaalea. In the questionnaire the products were studied individually, as can be seen on appendix 1. Each product had the same questions asked. In this part the results are shown from a different aspect so that it is easier to see the preferred qualities of each product.

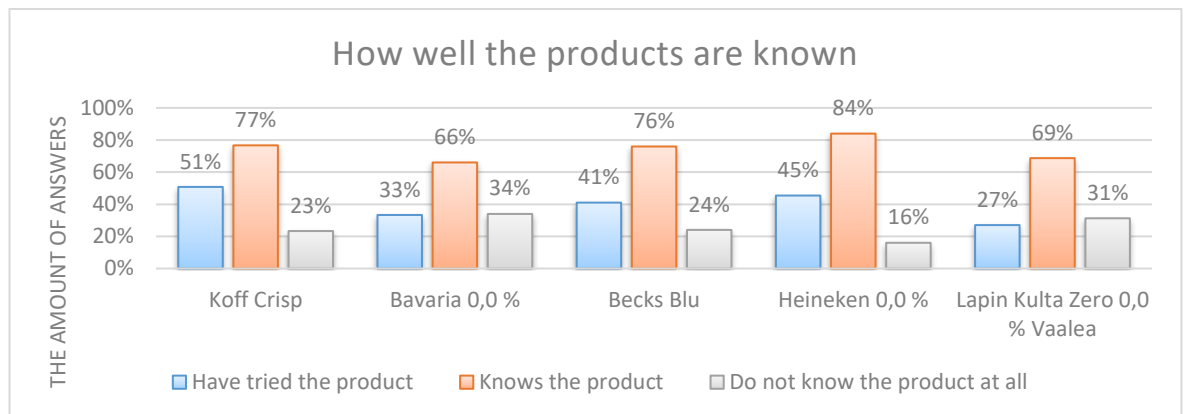


Figure 10. How well the products are known (n=Koff Crisp 100%, Bavaria 0,0 % 100 %, Becks Blu 100 %, Heineken 0,0 % 98 %, Lapin Kulta Zero 0,0 % Vaalea 98 %)

The best-known non-alcoholic beer product was Heineken 0,0 % (84 %), followed by Koff Crisp (77 %) and Becks Blu (76 %). Roughly two thirds knew Lapin Kulta Zero 0,0 % Vaalea (69 %) and Bavaria 0,0 % (66 %). There was no product that was not well known. The most tasted products were Koff Crisp (51 %) and Heineken 0,0 % (45 %). Heineken was more known, but more people have tasted Koff Crisp. That kind of showed that more people have wanted to try Koff Crisp over Heineken 0,0 %. That may have been because



of the huge campaigns, advertisements and marketing done by Sinebrychoff when launching the Crisp family. People may have also preferred local Finnish beers, and because of that chosen Koff Crisp over Heineken 0,0 %.

The least tried product was Hartwall's Lapin Kulta Zero 0,0 % Vaalea. Many people knew the product (69 %), but less than half of them (31 %) had tasted the product. Finnish brand Lapin Kulta lost a lot to the other Finnish brand Koff Crisp.

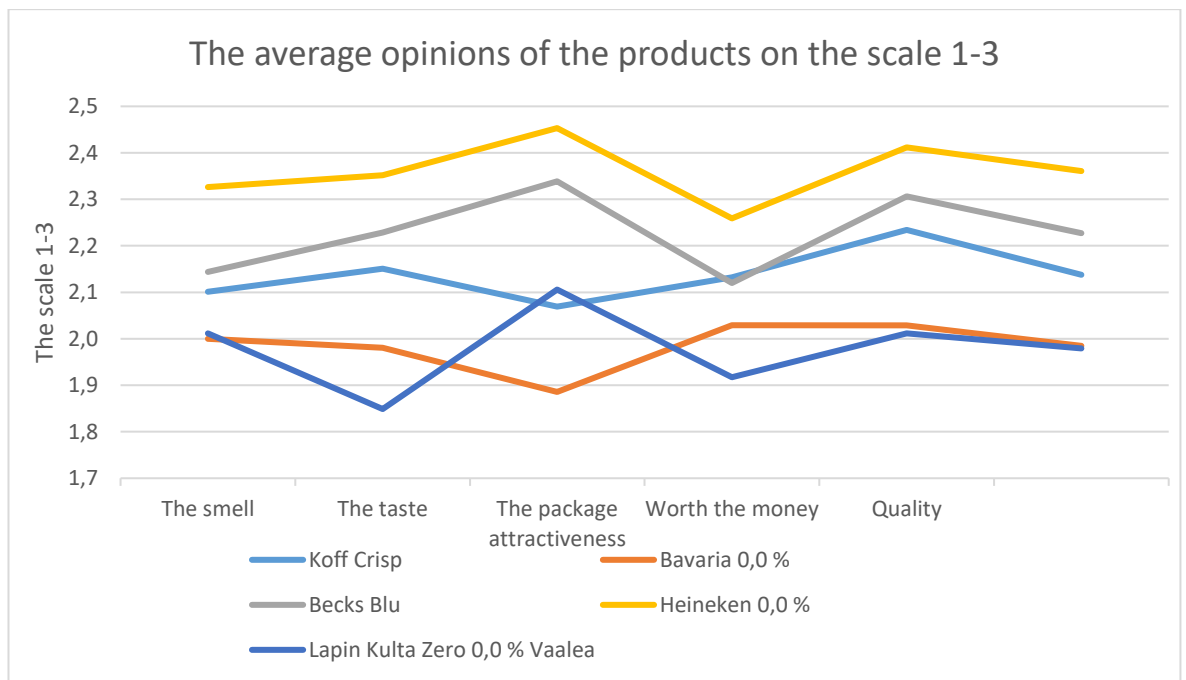


Figure 11. The average opinions of the products (n=Koff Crisp 51 %, Bavaria 0,0 % 34 %, Becks Blu 40 %, Heineken 0,0 % 45 %, Lapin Kulta Zero 0,0 % Vaalea 27 %)

Figure 11 shows how differently people found different products. The scale to rate different aspects of the products was from one to three. No product got an average below 1,7 on any aspects. It was promising to see no aspects on each product were not thought to be very bad. But neither no products exceeded the average of 2,5, which on the other hand meant that no product was thought to be very good.

Heineken 0,0 % was above every other product on every aspect. One of its best qualities was the package, which was thought to be attractive by the grade 2,5 on average. The taste got an average of 2,4 and the quality of 2,4. No aspects were lower than 2,3.

The aspects had almost the same kind of flow with Heineken 0,0 % and Becks Blu. The peaks were within the same aspects: the package attractiveness and worth the money. Becks Blu's averages were only few decimals below the Heineken 0,0 %. These two were

sold in bottles, whereas all the other products were sold in cans. This could have been interpreted that people in Helsinki metropolitan area preferred glass bottles over tin cans, when buying non-alcoholic beers.

Koff Crisp did not really compete with Heineken 0,0 % and Becks Blu. It had a bit higher worth of money average as Becks Blu, but all the other aspects were lower. The package was the weak point of Koff Crisp with an average of 2,1, which was even lower than the Lapin Kulta's package attractiveness average. Koff Crisp's advantage was its quality, which average was over 2,2.

On the other end were Bavaria 0,0 % and Lapin Kulta Zero 0,0 % Vaalea. They had some differences on the taste, the package attractiveness and worth the money. The smell and the taste averages were both 2,0. Bavaria 0,0 % was thought to have a better taste (2,0) and was more worth the money (2,0), whereas Lapin Kulta got lower averages on taste (1,8) and was less worth the money (1,9). Bavaria's weakness was its package (1,9), where Lapin Kulta got its best points (2,1).

There was not much difference between females and males on how they rated the aspects on the products. Females gave to almost every aspect on every product a bit higher grade. But the difference to males' answers were only few decimals.

Tabel 7. The average school grades (4-10) consumers gives to the products (n=Koff Crisp 52 %, Bavaria 0,0 % 35 %, Becks Blu 40 %, Heineken 0,0 % 45 %, Lapin Kulta Zero 0,0 % Vaalea 30 %)

The product	The average grade
Heineken 0,0 %	7,8
Becks Blu	7,5
Koff Crisp	7,3
Bavaria 0,0 %	7,0
Lapin Kulta Zero 0,0 % Vaalea	6,9

Heineken 0,0 % got the best school grade 7,8 on the scale from 4 to 10. The grades were quite tight, no product was very worse or better than others. All the averages were within 1,1 grade difference, even though the amount of answers varied. The grade 7 means a moderate level in the school grades. Heineken 0,0 % could have be rounded to the grade 8, which meant a good grade. Heineken got the most amount (5 %) of excellent 10 grades, whereas Bavaria did not get any excellent grades and all the other products got very few. Lapin Kulta Zero 0,0 % Vaalea got the last place with an average 6,9 with the least amount of answers. That may have been because it was the least known product as

well, which was kind of shame, because it was Finnish, and this research was studying consumption in Finland.

On average females gave better grades to all products than males. The biggest difference was with Bavaria 0,0 %, where females average grade was 7,4 and males 6,5. With Heineken 0,0 % the grades were almost the same with females (7,9) and males (7,8).

## 5 Discussion

The heterogeneity along the respondents was mainly good. There were answers from each age groups, except from the extremities (youngest and oldest). There was a bit more responses from females, even though they consumed less non-alcoholic beers than males. But both genders had over 100 responses. The biggest difference in heterogeneity was the place of living. The survey never was allowed to publish on all the cities' local Facebook groups. That affected in a way that Espoo and Vantaa were lacking responses, and the respondents mainly lived in Helsinki. All the accepted responses (313) had tried non-alcoholic beer, which was the main quality to be qualified as a respondent.

Roughly half of the responses came from the people working in restaurant field or on the other ways interested in beer. The survey was first published in the Facebook groups "Olutliitto – kuluttajan asialla" and "Helsingin hotelli- ja ravintola-alan sisäpiiri". From those the survey generated roughly half from the respondents in total, roughly 140 answers. Then later the survey was published to "Puskaradio Helsinki" and "Puskaradio Grani". The survey was still open in the first two groups. This meant, it was impossible to say exactly how many from the respondents had special interest in beer or had consumed it because of work related issues. The results may have been different if only regular people would have been studied, people with no professional experience in beers. This may have affected the reliability of this research, when there was no prove who these people were who answered or if they even answered truthfully to the survey.

The research questionnaire survey was itself valid. It included many different types of questions with possibilities to leave your own comments in many questions. The questions were done in a matter that with them the research questions were able to be studied. The results analyzed did answer to the research questions. There were some differences in the amount of answers in each question. Often few people's answers were missing in each question. But few people within over 300 responses, did not really affect the averages and analyses. On the other hand, some open-ended questions got a lot of answers (up to 90), which meant almost one third did answer to that. That was pretty good percentage in open-ended questions, especially in this research, where the survey was very long. All in all, the survey was very valid and measured exactly what it was supposed to measure.

When publishing the survey on Facebook, it felt like many people were interested in it. In total 3502 people opened the link, and from those 342 people answered. The answering rate could have been better. There may be many different reasons to those numbers.

Many might have thought the survey was too long to be answered or they had just opened it just from curiosity without the intention to answer. There could have been a lottery that respondents could have left their personal details and then someone could have won for example non-alcoholic beer products for themselves. That may have raised the answering rate, when people may have earned some benefit to themselves from answering the survey. But since this research did not have any commissioning party, it would have been wrong to give out prizes. If there was a brewery as commissioning party, it would have been great idea to give out the brewery's own products. But all in all, 342 was very good amount of answers to this research and the validity and reliability of this research were good.

### 5.1 The average non-alcoholic beer consumer's profile

The average non-alcoholic beer consumer in Helsinki metropolitan area lives in Helsinki city. He is middle aged male. He has at least one child. His educational background comes from higher education, weather from University of Applied Sciences or from university. He uses Facebook in his everyday life. He earns quite averagely. His household's incomes a year are between 41 000 to 70 000 euros.



Image 1.

He does drink alcohol twice a week. But when he only drinks, he only takes one or two doses of alcohol. He prefers lager type of beer and likes craft beer over mass produced beers.

He drinks non-alcoholic beer at least once in a month, sometimes more often. He thinks non-alcoholic beer suits best to be enjoyed when going to sauna or with food. So, does he consume non-alcoholic beers most often when going to sauna or enjoys it with food. Sometimes he takes it for thirst. For his non-alcoholic beer works as a replacement for alcohol, most often to regular beer. Sometimes he replaces soft drinks with non-alcoholic beer. When he knows he needs to drive, he replaces regular beers and alcohol with non-alcoholic beers.

When he buys non-alcoholic beer, he trusts his own experiences that he has had with the products he buys. If it was good, he will buy it again. He also trusts other people's opinions about the products. For him the type of the beer is important. He does not care about other people's opinions when buying non-alcoholic beer. If he feels like having non-alcoholic beer, he will buy it no matter what other people thinks of that. He buys non-alcoholic beer if it suits the plans for the night. Most often he buys non-alcoholic beer from a grocery store if he needs to avoid getting drunk or in general do not want to have alcohol. He would drink more non-alcoholic beers if the variety of selection would be wider and if they tasted more like regular beer.

His state of health is good, and he is interested in the health benefits that consuming non-alcoholic beers may arise. Though, he would like to learn more about those benefits. He has heard about some health benefits but has not really experienced them himself. Most likely due to the lack of knowledge.

His favourite non-alcoholic beer brand is Heineken 0,0 %. He finds the bottle to be attractive and he thinks the product tastes okay and has quite high quality. He though thinks the price is quite high and Heineken 0,0 % is not so much worth the money as it could be. He does not really like Hartwall's Lapin Kulta Zero 0,0 % Vaalea. Its taste is quite bad compared to Heineken 0,0 %. He has also tried Sinebrychoff's Koff Crisp, which he thinks is very okay on each aspect but does not compete with Heineken 0,0 %.

He would like to develop the taste of non-alcoholic beers. He thinks they should taste more like regular beer. He would also like to have more options to choose from. He wishes more breweries would start to make more non-alcoholic beers to broaden up the variety of the selection. He would also like to have more variety in the types of beers. Most

often he finds only lager type of non-alcoholic beers, but sometimes he would like to have other types as well.

## 5.2 Reflections to the theories

Maunu (2017) stated that with understanding the reasons behind drinking it is easier to understand the future and why non-alcoholic versions have gained such a huge popularity. That proved to be right in this research. It was good that the general drinking habits were studied in the research, because the results showed that non-alcoholic beers work as replacements for alcoholic beverages.

Sinebrychoff (2018) had studied that people are more interested in health and wellbeing and that is why they had created their non-alcoholic beer brand family Crisp. The health aspect was studied in this research. 62 % (n=194) were interested in the positive health aspects of consuming non-alcoholic beers. That showed that people were interested in health aspects. There is potential to reach more consumers if the health benefits would be studied more so they could be promoted better to the possible consumers.

Finnish brewery association (2015) had studied that almost half enjoys non-alcoholic beer with food, 39 % when going to sauna and one third for the thirst. This research's results followed the similar kind of pattern. Non-alcoholic beers were most consumed when going to sauna, 43 % (n=135), and with food, 40 % (n=125). The third place went to for the thirst, where the percentage was 27 % (n=85). Brewing association stated that only 6 % of Finns thinks non-alcoholic beer is a good as a recovery drink. That same result was seen in this research, where only 7 % (n=22) stated to enjoy non-alcoholic beer as recovery drink. There is potential to reach new kind of consumers, the sporty ones, if the recovery drink aspect could be marketed better. This showed this research was done quite well, when the results followed a similar kind of research results made in more professional way by an actual company. (Panimo- ja virvoitusjuomateollisuusliitto 2015.)

B&T Weekly (2017) talked about the negative stigma on drinking non-alcoholic beer. According to their research one in every ten people in Germany and France says they are embarrassed to drink non-alcoholic beer. With this research there were only very few negative comments about that stigma. There were some negative comments on the Facebook posts, but most likely they did not even answer to the survey. On the other hand, there were even comments on how they liked that there was no such kind of stigma any more. Many claimed that drinking non-alcoholic beer was acceptable, even though not

such a question was never asked on the survey. But many felt they needed to bring it up in the comments.

B&T Weekly (2017) stated also that one fourth of them says that the taste of non-alcoholic beer is as good as regular beer. In this research the taste of non-alcoholic beer came up many times. Especially on the question on how consumers would like to develop non-alcoholic beers, where 65 % from the respondents would have liked to develop the taste. On the other question almost the half, 48 % (n=151), stated that they would have drunk more non-alcoholic beers if they tasted more like regular beer. Both these studies showed that the taste of non-alcoholic beers was not thought to be close to regular beer.

Ziemann (2018) stated the important question on what non-alcoholic beer replaces in one's life. If it replaces alcoholic beverage, non-alcoholic version does have positive health benefits, but if it replaces for example water, there will be negative effects. In this research it was studied the majority 85 % (n=267) used non-alcoholic beer to replace a regular beer. This showed that people were looking for healthier options or have been trying to avoid the bad effects on regular beer, such as getting drunk or having a hangover.

The results followed the same pattern as Hartwall (2016) had studied before. In this research it was seen that males consumed more non-alcoholic beers than females did. Hartwall also studied that at least 60 % chooses non-alcoholic version at least occasionally. There was no explanation on how often occasionally actually was. But in this research 42 % (n=131) consumed non-alcoholic beer at least once a month. So, in both studies this number was quite high. Hartwall's (2016) results highlighted that Finns choose non-alcoholic beers because they do not want to get drunk. In this research the majority, 72 % (n=226), chose non-alcoholic beer to avoid getting drunk. Once again, both studies got similar results.

### **5.3 Improvement ideas and suggestions to further researches**

For the further research it is recommended to study the whole topic deeper. On the theoretical part there were found smaller overviews, blogposts and news about trend of non-alcoholic beers. But not researches on Finn's non-alcoholic beer consumptions, where you could see the whole process of the research as in this research. Bigger breweries such as Hartwall and Sinebrychoff had done their own researches on this topic, but of course they have published only some results of those and using the more valuable data for their own benefit. So, this kind of research could be done more deeply to be public to help smaller breweries as well. This research was still kind of small with only 313 qualified



respondents. If you want to know how people in Finland consume non-alcoholic beers, you should have way more responses.

The health benefits of consuming non-alcoholic beers should be studied with bigger sampling groups and with longer tracking time. That popped up already in the theoretical part, when in almost every result found on the health benefits stated the same problem: the lack of deeper studies on these topics. All the results found were directive due to the small sampling groups. For the future researches these health benefits of consuming non-alcoholic beers should be studied further. If there were more reliable data with bigger samplings, the results could be more brought to the possible consumers' attention. People are nowadays looking for healthier options. It would be good if they knew more about the health benefits of non-alcoholic beers. The more knowledge could raise up the sales of non-alcoholic beers. Health benefits could be used in the marketing of the products to reach new consumers.

In this research cross analysing was done only within genders and the products. To understand the phenomena of non-alcoholic beers better, the cross analysing should be done with many more aspects. It could be studied from many more aspects on what affects the consumption. Such as how much the income level affects the consumption. For example, if you had more money, would you buy more non-alcoholic beers? And how much money should you have to consume more? There are so many different aspects that could be studied deeper within this topic.

One idea would be to conduct this research with interviews. This way the whole phenomena on consuming non-alcoholic beers could be studied better. For example, in this research the taste of non-alcoholic beers popped up several times. But without understanding that phenomena when making the questionnaire, there were not the right questions to help understand on how the taste could be developed. With the interviews you could chat with the interviewee more about those aspects that pops up to understand them better.

This kind of research should be done by all the breweries before making their non-alcoholic beers. You should always understand your customers and their wants and needs and based on those you should non-alcoholic beers that would taste to your customers. For example, as a smaller brewery, you could interview your loyal customers and study what they like in your beers and what aspects they would like to have on your non-alcoholic beers.

With this research it was seen that males consume more non-alcoholic beers, even though most of the respondents were female. One idea for the future could be on how to make females consume more non-alcoholic beers. You could develop campaigns to suit only for females to catch their attention. In general males are thought to drink more beer than females, which may be seen with non-alcoholic beers as well. Females might be lacking the knowledge or the interests in non-alcoholic beers, because they do so with alcoholic beers. Females should be made more aware of non-alcoholic beers to get them consume more. One idea is to do that through the health benefits.

#### **5.4 Thesis process and learning**

The theoretical part could have been done better. This part was missing some information and numbers that popped up after the analysing part was done. There were some aspects that did not match between the theoretical part and the results. Like there were references used in theoretical part, that did not give any extra values to the results. But it was known right in the beginning that this part was to be the hardest for the researcher. With the little knowledge had, the end result with the theoretical part was very satisfactory to the researcher.

The empirical part was easy to make, because it followed the actual order everything was made. There could have been used more references to make it look more professional. Discussion part was well done. There were clear connections with the results to the theoretical part. The consumer profile was great, and it had all the aspects that were studied with the questionnaire. The profile kind of summed up the results part. I

The whole process of this thesis went well and very independently. With the supervisory teacher there were some meetings, but mainly this thesis was conducted on the researcher's own conditions.

##### **Keeping up with the schedule**

The first draught for the schedule was done in the planning phase of this thesis. There was not done any deeper schedules after that. The schedule was done before getting the teacher to supervise this thesis, so it was lacking some understanding on the whole process and how much time should be planned for each step. The schedule was quite tight that left many weeks in the end to be empty, so that those weeks could be used if something earlier did reach its time requirements. It was thought to better have too tight schedule with a looser end than too loose schedule with too tight end to avoid the stress that may occur if the time runs out. The biggest goal had always been to finish this thesis and graduate by the end of the year 2018.

The schedule was met in the first few weeks with the theoretical part. With the empirical part, the focus was lost, and that part took more time than planned. The schedule was re-made in a way that the original goal to graduate could still be met. There was extra time added to collect the responses to the survey. In the end the responses were gotten within a few days, so that step ended to be way faster than thought. All in all, the scheduling could have been done better, but still this thesis was submitted in time and the original goal to graduate was reached.

The researcher herself learned a lot from non-alcoholic beers. Before starting this research, she knew a lot from regular beers, but non-alcoholic versions were new territory for her. The theoretical part gave understanding on how non-alcoholic beers may be healthy, how the trend can be seen abroad and in Finland. She learned from the products as well by trying the products herself, because of the interest raised from this research.

This had been the first bigger research made by the researcher. At the beginning the knowledge on making researches was not very broad. As said earlier, the theoretical part was hard to make. But when doing it you learned a lot from the whole process. If this research were conducted again by the same researcher, the theoretical part would be way deeper and with more details. She has now more understanding what is necessary on that part. Making the questionnaire was easy. Webropol as a tool was easy to learn to use and the language required for the survey was already in good level. The analysing part was totally new on Webropol. With good instructions from the supervisory teacher, it turned out to be relatively easy. All in all, the whole process on making researches, is now more familiar and the researcher have learned from her mistakes. The next research made by her would be even more professional, especially on timewise. It would require less time to make, because every step is more familiar.

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## Appendices

### Appendix 1: The Webporol questionnaire

1. Oletko joskus maistanut alkoholitonta olutta? / Have you ever tasted non-alcoholic beer? \*

- Yes
- No

### Taustatiedot / Demographics

2. Kuinka vanha olet? / How old are you?

- Alle 18 / Under 18
- 18-25
- 26-35
- 36-45
- 46-55
- 56-65
- 66-75
- Yli 75 / Over 75

3. Missä asut? / Where do you live?

- Helsinki
- Espoo
- Vantaa
- Kauniainen
- Muualla kuin näissä vaihtoehtoissa, missä? / Somewhere else than these options, where? \_\_\_\_\_

4. Mikä on sukupuolesi? / What is your gender?

- Nainen / Female
- Mies / Male



Muu / Other

**5. Onko sinulla lapsia? / Do you have children?**

Ei / No

Kyllä, hän/he asuvat luonani / Yes, she/he/they are living in my household

Kyllä, hän/he eivät asu luonani / Yes, she/he/they are not living in my household

**6. Missä olet suorittanut viimeisimmän tutkintosi? / Where have you completed your latest degree?**

Yliopisto / University

Ammattikorkeakoulu / University of Applied Sciences

Lukio / High School

Ammattikoulu / Vocational school

Peruskoulu (kansakoulu) / Comprehensive school

**7. Mitkä olivat kotitaloutenne yhteenlasketut bruttotulot vuonna 2017? / What was the income of your household before taxes during the year 2017?**

Alle 15 000 / Less than 15 000

15 000 - 20 000

21 000 - 40 000

41 000 - 70 000

71 000 - 100 000

101 000 - 120 000

121 000 -150 000

Yli 150 000 / Over 150 000

### **Juomatottumukset / Drinking habits**

**8. Juotko ylipäättänsä alkoholia? / Do you drink alcohol?**

Kyllä / Yes

Ei / No

**9.** Kuinka usein keskimäärin juot alkoholia? / How often do you usually drink alcohol?

- Joka päivä / Every day
- Kahdesti viikossa / Twice a week
- Kerran viikossa / Once a week
- Muutaman kerran kuukaudessa / Few times a month
- Kerran kuukaudessa / Once a month
- Kerran kahdessa kuukaudessa / Once in two months
- Muutaman kerran vuodessa / Few times a year
- En koskaan / Never

**10.** Minkä tyyppistä olutta yleensä juot? Voit valita maksimissaan kolme eri vaihtoehtoa. / What type of beer do you usually drink? You may choose up to three options.

- Lager
- Tumma lager / Dark lager
- Vehnäolut / Wheat beer
- Ale
- IPA
- Pienpanimo-olutta / Craft beer
- Jokin muu, mitä? / Something else, please specify \_\_\_\_\_

**11.** Kuinka monta alkoholiannosta keskimäärin juot kerralla? / How many alcohol doses do you usually drink at once?

- 1-2
- 3-4
- 5-6
- 7-8
- Yli 8 / Over 8
- En juo alkoholia / I don't drink alcohol

## Alkoholiton olut / Non-alcoholic beer

12. Kuinka usein keskimäärin juot alkoholitonta olutta? / How often do you drink non-alcoholic beer on average?

- Joka päivä / Every day
- Kahdesti viikossa / Twice a week
- Kerran viikossa / Once a week
- Muutaman kerran kuukaudessa / Few times a month
- Kerran kuukaudessa / Once a month
- Kerran kahdessa kuukaudessa / Once in two months
- Muutaman kerran vuodessa / Few times a year
- En koskaan / Never

13. Missä tilanteissa yleensä nautit alkoholitonta olutta? Voit valita useampia vaihtoehtoja. / In what kind of situations do you usually enjoy non-alcoholic beer? You may choose several options.

- Urheilun jälkeisenä palautusjuomana / As an after sports recovery drink
- Janoon / For thirst
- Ruuan kanssa / With food
- Saunajuomana / When going to sauna
- Juhlajuomana / At celebrations
- Kun olet juhlimassa ulkona / When going out
- Tilanteissa, jossa alkoholillinen juoma ei ole suotavaa, kuten kokouksissa. / At situations where alcoholic drinks are not recommendable, such as meetings.
- Jokin muu, mikä? / Something else, what? \_\_\_\_\_

14. Kuinka hyvin mielestäsi alkoholiton olut sopii näihin tilanteisiin? / How well non-alcoholic beer suits to these situations, in your opinion?

Ei sovi ollen- kaan /	Jonkin verran / A bit	Sopii hyvin / Suits well	Sopii erin- omaisesti / Suits very well	En osaa sanoa / I can not say
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	Not at all				
Urheilun jälkeisenä palautusjuomana / As an after sports recovery drink	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Janoon / For thirst	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ruuan kanssa / With food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Saunajuomana / When going to sauna	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Juhlajuomana / As celebration drink	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Kun menet ulos juhlimaan / When going out	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tilanteissa, joissa alkoholillinen juoma ei ole suotavaa, kuten kokoukset. / At situations where alcoholic drinks are not recommended, such as meetings.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**15.** Minkä korvikkeena alkoholiton olut sinulla yleensä toimii? Voit valita maksimissaan kolme vaihtoehtoa. / What drinks do you usually replace with non-alcoholic beer? You may choose up to three options.

- Alkoholillisen oluen / An alcoholic beer
- Muun alkoholin / Some other alcoholic beverage
- Limun / Soft drink
- Kivennäisveden / Soda
- Veden / Water
- Mehun / Juice
- Jonkun muun, minkä? / Something else, what? \_\_\_\_\_

**16.** Kuinka paljon nämä tekijät vaikuttavat ostopäätökseesi ostaa alkoholitonta olutta? / How much these factors affect on your decision to buy non-alcoholic beer?

Ei vaikuta ol- lenkaan / Does not affect at all	Vaikuttaa hieman /	Vaikuttaa paljon /	Vaikuttaa erit- tän paljon /
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		Affects a little	Affects a lot	Affects very much
Hinta / The price	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Oluen tyyppi / The type of the beer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alkoholiprosentti / The alcohol percentage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pakkauksen ulkonäkö / The look of the package	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Illan suunnitelmat / The plans for the night	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ihmiset joiden kanssa tulet nauttimaan ostetun oluen / The people you will be with when drinking the beer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ihmiset ympärilläsi ostotilan- teessa / The people around you in the situation of buying the beer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pakkauksen koko / The size of the package	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tuote on pullossa / The product is sold in a bottle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tuote on tölkissä / The product is sold in a can	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Myyjän suositukset / The rec- ommendations of the salesper- son	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Suosituksia, joita olet muualta kuullut / The recommendations you have heard from some- where else	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Mainonta, jota olet nähnyt tuotteesta / The advertising you have seen on the product

Aikaisemmat kokemukset tuotteesta / The previous experiences on the product

**17. Miksi valitset alkoholittoman oluen? Voit valita maksimissaan kolme vaihtoehtoa. / Why do you choose non-alcoholic beer? You may choose up to three options.**

- Välttääkseni humalatilan / To avoid getting drunk
- Välttääkseni krapulan / To avoid hangover
- Seurassa on lapsia / There are children around
- Terveysvaikutteiden takia / For its health benefits
- Hinta - halvempi kuin normaalilla oluella / The price - It is cheaper than the regular beer
- Kokeillakseni uusia juttuja / To try new things
- Korvatakseni alkoholillisen juoman / To replace alcoholic beverage
- Korvatakseni muun alkoholittoman juoman / To replace some other non-alcoholic beverage
- Alkoholittoman oluen maun takia / The taste of non-alcoholic beer
- Joku muu syy, mikä? / Some other reason, what? \_\_\_\_\_

**18. Mistä yleensä ostat alkoholittonta olutta? / From where do you usually buy non-alcoholic beer?**

- Alko
- Ruokakauppa / Grocery store
- Ravintola / Restaurant
- Tilaan netistä / Ordering online
- Ulkomailta / Abroad
- Muualta, mistä? / Somewhere else, from where? \_\_\_\_\_

**19. Kuinka kehittäisit alkoholittomia oluita? / How would you develop non-alcoholic beers?**

**20.** Joisin enemmän alkoholittomia oluita, jos... / I would drink more non-alcoholic beers if....

- Ne olisivat halvempia / They were cheaper
- Ne maistuisivat enemmän oikealle oluelle / They tasted more like actual beer
- Tietäisin niistä enemmän / I knew more about them
- Valikoima olisi parempi / The selection would be bigger
- Niitä markkinoitaisiin paremmin / They were marketed better
- Joku muu, mikä? / Something else, what? \_\_\_\_\_

## **Terveys ja hyvinvointi / Health and wellbeing**

**21.** Minkälaisena pidät tämänhetkistä terveydentilaasi? / How do you rate your current state of health?

- Huono / Bad
- Kohtalainen / Moderate
- Hyvä / Good
- Erinomainen / Excellent

**22.** Kiinnostavatko sinua alkoholittoman oluen terveysvaikutukset? / Are you interested in health benefits of non-alcoholic beer?

- Kyllä / Yes
- Vain jos vaikutukset ovat positiivisia / Only if the benefits are positive
- Kyllä, mutta haluaisin tietää lisää / Yes, but I would like to learn more
- Ei ollenkaan / Not at all
- Ei, en usko niihin / No, I don't believe in them

**23.** Oletko kuullut näistä alkoholittoman oluen mahdollisista terveysvaikutuksista? / Have you heard about these possible health benefits of consuming non-alcoholic beer?

- Unen laadun parantuminen / Improvement of the sleep quality
- Ahdistuksen vähentyminen / Remission of the anxiety
- Imettäessä äidinmaidon tehokkaampi tuotanto / Enhanced production of breast milk when nursing
- Palautusjuomana (kehon palautuminen) / As a recovery drink

- Sydämeen liittyvät asiat (kuten verenpaineen aleneminen) / Heart issues (such as decrease in blood pressure)
- En ole kuullut mistään näistä terveysvaikutuksista / I have not heard about any of these health benefits

**24.** Oletko huomannut alkoholittoman oluen vaikuttavan positiivisesti terveyteesi näillä osa-alueilla? / Have you noticed positive impact on your health of non-alcoholic beer from these aspects?

- Unen laadun parantuminen / Improvement of sleep quality
- Ahdistuksen vähentyminen / Remission of anxiety
- Imettäessä äidinmaidon tehokkaampi tuotanto / Enhanced production of breast milk when
- Palautusjuomana kehon palautuminen / Recovery drink nursing
- Sydämeen liittyvät asiat kuten verenpaineen aleneminen / Heart issues such as decrease in blood pressure
- En ole huomannut mitään terveysvaikutuksia / I have not noticed any health benefits

## Brandit ja tuotteet / Brands and products

The same questions were asked separately for each product: **Sinebrychoff's Crisp Lager 0,0 %**, **Bavaria 0,0 %**, **Becks Blu 0,3 %**, **Heineken 0,0 %** & **Lapin Kultaa Zero 0,0 % Vaalea**

**25.** Oletko maistanut kyseistä tuotetta? / Have you tasted this product?

- Kyllä / Yes
- En, mutta tiedän tuotteen / No, but I know the product
- En, enkä ole kuullut tuotteesta / No and I have not heard about this product

**26.** Jos olet maistanut kyseistä tuotetta, valitse sopivin vaihtoehto. / If you have tasted the product, please select the most suitable option.

1 2 3

En pidä tuotteen tuoksusta / I do not like the smell of the product

Pidän tuotteen tuoksusta / I like the smell of the product



- |   |   |   |
|---|---|---|
| En pidä tuotteen mausta / I do not like the taste of the product              | <input type="radio"/> <input type="radio"/> <input type="radio"/> | Pidän tuotteen mausta / I like the taste of the product           |
| Pakkauksen ulkonäkö ei ole kiinnostava / The package does not look attractive | <input type="radio"/> <input type="radio"/> <input type="radio"/> | Pakkauksen ulkonäkö on kiinnostava / The package looks attractive |
| Tuote ei ole hintansa arvoinen / The product is not worth the money           | <input type="radio"/> <input type="radio"/> <input type="radio"/> | Tuote on hintansa arvoinen / The product is worth the money       |
| Tuote ei ole laadukas / The product is not high quality                       | <input type="radio"/> <input type="radio"/> <input type="radio"/> | Tuote on laadukas / The product is high quality                   |

**27.** Minkä kouluarvosanan antaisit tuotteelle? Asteikolla 4-10. / What grade would you give to the product? On the scale 4-10.

- 4  5  6  7  8  9  10

**28.** Mitä muuttaisit kyseisessä tuotteessa? / What would you change on the particular product?

**45.** Mitä muita alkoholittomia oluita olet maistanut? / What other non-alcoholic beers have you tasted?