

Creation of a nutritional label for Helsinki Market restaurant at the Airport of Helsinki

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Bachelor's degree of Hospitality, Tourism and Experience Management
7th of March 2020



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Degree programme Bachelor's degree of Hospitality, Tourism and Experience Management	
Report/thesis title Creating a nutritional chart and for Helsinki Market restaurant at Helsinki Airport	Number of pages and appendix pages 24+9
<p>This is a product-based thesis commissioned for HMSHost Finland Oy, a company operating at the airport of Helsinki. The final product is a new kind of product label with nutritional information, allergens symbols and a price tag. The product will be piloted in Helsinki Market restaurant where the author of this thesis also works at.</p> <p>The main aim of this thesis is to provide more nutritional information to the customers which can be achieved by creating a nutritional chart and allergens symbols into the price tags. As a sub-product of the product creation process, the author had to design a learning material for the company on how the new price tags can be created.</p> <p>In the theoretical part the author concentrates on the legislative and regulatory aspects of food industry in Europe, United States and in Finland. Also, theoretical part discusses on the legislation and regulation in Finland regarding food labelling. Lastly, theoretical part discusses the food trends according to the consumers in Finland. The author decided the topic together with the commissioning company, as they had claimed for a need for such product.</p> <p>The third chapter of this thesis discusses the creation process of the product itself by reflecting it to the theoretical part. The author created the system himself in order to get the final results, but the commissioning company provided the author with the base material where the findings of the creation process could be implemented into in order to get the final product.</p> <p>In the end of the thesis the author discusses further development ideas for the product and commissioning company, feedback from customers, restaurant manager of Helsinki Market and the contact person of the commissioning company. Above all, the author discusses the training material for the product creation and the future of the product.</p>	
Keywords nutritional chart, product labelling, nutritional information, product development	

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1 Introduction

The idea of this product based functional thesis is to study and research the need of a nutritional chart and an ingredients table for a restaurant called Helsinki Market operating at the Helsinki Airport. The commissioning company ; HSMHost Finland Oy; does not have such a product in their units and, as the guidelines and laws are constantly changed by the Health Department in the ever evolving restaurant industry, the commissioning company feels they have a need to create one and therefore have a head start towards the future. The commissioning company has a plan of integrating the final product into their other units and use it internally in the company in the future, but this functional thesis focuses only on creating it for one of their units.

The European Parliament and EU decided on a new law decree; n:o 1169/2011; in 2011, that the nutritional information of all provisions that are packed should be given to the consumers. This meaning, that all provisions that are separately packed, should be marked according to the Food Information Regulations in order for them to be sold in the EU. However, the regulations for the batch number and the languages of the nutritional information can be still regulated nationally according to the regulation set by the Ministry of Agriculture with the decree of 834/2014. According to the regulation the packaging information must be in those provisions, that are meant to be handed over to consumers or to catering as they are without braking or opening them. (Ruokavirasto 2019.) As we have seen that the regulations that are set to the food industry and on the consumer based industry, do usually follow up to the restaurant industry and therefore the commissioning company wants to take a head start in creating the nutritional charts already by the end of this year into their products. We can clearly state that, it does also give more creditability to the operator when they operate with more transparency.

The author has an interest in the topic, because he has a working history of over five years in the restaurant industry as well as a training from the military to be group leader for the military cooks where it was important to learn about the legislation of food safety. The author has worked in the commissioning company's unit for over three and half years and has seen and got the understanding of what it takes to develop a restaurant and its functions. The author believes that through his own experience and knowledge, he can provide reliable outcomes and a reliable product to the commissioning company as well to this thesis.

The key factor in this thesis is the creation of the nutritional label and ingredients chart for the commissioning company. The thesis aims to research the most important factors in

food labelling according to the legislation of Food Ingredients Information. In restaurant industry, the rules and regulations and obeying them, are the base of a functional and operating restaurant. Without being on track with the demands of the rules and regulations, as well as trends, the restaurant cannot operate in a profitable way.

The goals and aims of this product based functional thesis are as follows:

- The main aim and goal of this thesis is to provide more nutritional information to the customers

The sub goals and sub aims of this thesis include:

- Creating a nutrient labelling product for the company HSMHost Finland and their operating restaurant Helsinki Market
- Creating nutritional labels for smoothies and breads that are sold in Helsinki Market
- Making the allergens information available for the customer as well as defining what does each allergen marking stand for
- Providing a learning material to the company on how to create the nutritional labels

1.1 Needs and objectives of the product

As the thesis is conducted in a commission base, the commissioning company has told the author that, they have a need for a nutritional label into their products of the items that are sold in the unit Helsinki Market. Even though the main reason for conducting such a product is to provide more nutritional information to the customers, another key factor for conducting this thesis and providing the commissioning company the final product is that, they have predicted that the Ruokavirasto might be asking the labels to be in the out-selling products in the future. Therefore, the company wants to take a head start and created a need for such products before it is set in the regulations and rules.

The objective of this product-oriented thesis is to provide more nutritional information to the customers in the future of the products they buy. In order to provide more nutritional information to the customers, the author needs to create a new kind of labelling for the products. The author needs to create a database for the company where the nutrient information is stored to and where it can be easily accessed and edited at any time. The final outcome of this thesis will be a nutrient label for the smoothies and breads that are sold, that will provide more nutritional information of the products to the customers.

1.2 Plan and schedule

The thesis process started officially at the beginning of September 2019. Some discussions were conducted already earlier and the topic was chosen from different topics

that the author had listed to write from to the commissioning company. The timeline illustration below illustrates the thesis process and the schedule in detail.



Figure 1: Thesis plan and schedule (designed by author with Canva)

In September 2019 the author started by creating a new plan to the schools Konto platform in order to get a supervisor for the thesis subject that was chosen by the commissioning company. The author had already started to work on a thesis before, but due to the bad co-operation with the previous commissioning company and independent changes in the life of the author the process was stopped. The author got the supervisor in the mid-September and met right after that with her. They conducted together a plan that would help the author to finalize the thesis as soon as possible in order for the commissioning company to get the labels into use at the restaurant.

From mid-September to the beginning of November the author will use to write the theoretical framework of this thesis. From November to the end of December the author will use to collect and use the necessary data and tools for creating the labels for the commissioning company. In January to mid-February the author has planned to write out the discussion and conclusion part of this thesis, make the final corrections for the thesis and will sign up for the presentation. In February the author has planned to do the final presentation of this thesis as well as the maturity test. And, finally in the beginning of March, the author will hand in the final version for revision to the supervisor.

2 Legislative and regulative factors that affect the food industry in the EU

The food ingredient information regulation group consists of both packed and unpacked products as well as a lot of goods that are handed over from professional kitchens. However, the EU regulation mainly focuses only on packed goods. Therefore, the agricultural ministry of EU has set another add on to the regulation in 2014, which focuses more on the unpacked products and the information that needs to be visible for consumers and for mass catering. (The legislation set by European Parliament and Council on 25th of November 2011 N:o 1169/ 2011 2018 & Ruokatieto 2019).

In order for the reader to understand the content of the theoretical background, the reader has to understand that the restaurant and company that this product-oriented thesis is conducted for operates in Finland and therefore is responsible to operate under the legislation, rules and regulations that are set by the European Parliament, as well as by the National Law in Finland and the additional regulations set by the Ministry of Agriculture and Forestry. As the restaurant that is operating is serving both packed and unpacked products, it is also important to understand the difference between packed and unpacked products. According to the additional regulation set by the Ministry of Agriculture and Forestry N:o 834/2014, 3 § the unpacked products can mean the following:

- The final consumer gets the product, and either must pack it themselves or it will be packed for them by request at the place of distribution
- The product is already packed at the place of distribution for instant selling as it is or is served to the final consumer to be enjoyed at the place of distribution
- As an addition, the cheese that is packed into transparent packaging and sold in a store as well as vegetables that are sold separately and packed in a transparent packaging such as cucumber is considered to belong in the group of unpacked products

(EUR-lex.europe.eu : Questions about the unpacked products information number 2 2018)

As this thesis focuses only on the smoothies and breads, that are sold in the restaurant, all of the products are unpacked and therefore the legislation and rules of unpacked food products will be only considered when conducting the nutritional labels into these products.

The food ingredient information regulation created by the European Union in 2011 defines stricter than before the amount of information that must be given about the goods. The main purpose of the regulation is to provide consumers as well as the whole food chain a better and clearer picture of where from and where is the ingredient produced and what kind of nutrients and allergens they contain. This creates more value to the consumers, that they are taken into account when the retailer chooses their products for sale and the common health of the consumers are also looked after and cared for. Should the retailer make better and healthier decisions, as well as give more detailed information to the consumer, it will also help the consumer to make better buying decisions financially. Also, the regulation was created in order to prevent the misleading of consumers. A sufficient amount of information increases the safety of the food products and makes it easier for the customer to decide on buying the product or not buying it. The idea of the regulation was also to unify the necessary package labelling better between the countries that belong to the European Union. (Regulation on labelling of foodstuffs EU 1169/2011 2015).

The new regulation which was set in 2011 had stricter guidelines in the following factors:

- The name of the product in the label
- Where the product is from originally
- The amount of the product packaging contains in grams or kilograms
- Can/ Should it be frozen or not and in which temperatures
- The nutritional labelling and the contained ingredients of the packaged product
- How much it has salt and how it needs to be marked as well as the markings of the allergens

(The legislation set by European Parliament and Council on 25th of November 2011 1169/2011)

From unpacked foodstuffs the retailer is responsible on giving either orally or written the following information according to the Food Industry Authority in both Finnish and in Swedish: the name of the product, ingredients of the products, products or ingredients that cause allergies or intolerances, the country of origin as broadly as in packed products, the needed storing and usage information, and from certain products; cheese, cold cut meat and sausage; it is necessary to inform the amount of salt and fat it contains as well as breads that contain food in them it is necessary to inform the amount of salt in the amount of sodium x 2,5. In addition, the production label or a label of date, if it is accurate within a day or a month. (The regulation of food labelling set by the Ministry of Agriculture and Forestry no 834/2014 2014).

Though the regulation that was set in year 2011, the products on the market should follow the packaging labelling as well as nutritional labelling regulation on 13th of December 2014 at the latest. The products, that did not have nutritional information before, got an extended transition period until the 13th of December 2016. The transition period was set so far due to the fact that, on the same deadline the labelling guidelines for the amount of salt in a product changed. If, for some reason, the retailer wants to inform the details voluntarily, they should still be according to the regulations set by the EU and the agricultural ministry. (The legislation set by European Parliament and Council on 25th of November 2011 N:o 1169/ 2011 2018 & Ruokatieto 2019).

As an addition, the product may be part of a group of goods that belong to the special regulatory group. Should the product belong to the special regulatory group, the retailer of this product should take into account the nutritional and the health regulation, the regulation of freezing or handling it fresh as well as all the other necessary regulations that go into this special regulatory needed group. (The legislation set by European Parliament and Council on 25th of November 2011 N:o 1169/ 2011 2018 & Ruokatieto 2019).

The responsibility of the labelling information as well as giving the nutritional information to consumers lays always on the retailer whose name is used to sell these products. If this retailer or operator does not operate within the European Union, the responsibility is on the importing party that transports the goods into the European Union. All other operators of the food industry are also responsible for the fact, that the products that they sell, distribute or offer to consumers have the labels and information according to the regulation. This contains also the list of allergens, that need to be marked in the ingredient list as bold, italics or underlined on all products. In packed products these need to be bolded in the ingredients list and in unpacked products they need to be either on the display with the product or they need to be handed over to the consumer orally. Also, the ingredients that can cause allergies or intolerances need to be informed always. In addition, the additives of the products, the aromas and enzymes, the dissolvent, and the carry over additives that do not have any effect on the final product. In the European Union, the list of allergens and ingredients that cause intolerances, which need to be informed or given when requested consist of fourteen different ingredients:

1. grains, that contain gluten like wheat, rye, barley, oats or their hybrids and grain products
2. seafood and shellfish products
3. egg and egg products
4. fish and fish products except for:
5. peanuts or products that include peanuts

6. soybeans or products including soybeans
7. milk and dairy products
8. nuts like almonds, hazelnuts, walnuts, cashew nuts, pistachio nuts, pecan nuts, para nuts, macadamia and Queensland nuts or nut-based products
9. celery or products that include celery
10. mustard or products that contain mustard
11. sesame seeds and products that contain sesame seeds
12. sulfites and sulfur dioxide containing products
13. lupines and products that contain lupine
14. mollusks and product that contain mollusks

(The legislation set by European Parliament and Council on 25th of November 2011 N:o 1169/ 2011 2018).

The regulation that the agricultural ministry has set on the unpacked products, was set to be valid from 1st of April 2015 onwards. This regulation tells, that the producer of the product is responsible in giving out the consumers and the mass catering operators as well as professional kitchens certain information. As well, the agricultural ministry set a new regulation on marking of the origin of pork meat, lamb and goat meat, as well as on the poultry on 15th of April 2015. The need to report the origin of the meat is valid on both packed fresh meat as well as packed frozen and defrosted meat. (The legislation set by European Parliament and Council on 25th of November 2011 N:o 1169/ 2011 2018 & Ruokatieto 2019).

2.1 Legislation and Regulation on Food Safety in United States in comparison to EU

This chapter discusses the differences between the legislations, regulations and rules that different continents, unions or countries may have. This chapter brings a little perspective on these differences. During this chapter the reader can make up conclusions, that many of the laws in the United States are like the ones in the Europe, but they have been created a lot earlier and are monitored in a stricter way. In Europe a lot of the monitoring happens independently throughout the year, whereas in the United States there is a greater demand in order for the operator of food industry to prove their way of working and food safety maintenance.

In the United States of America, the system is working in the same way as in the Europe. The laws, regulations and amendments for food safety regulatory activities, food labelling

and food information distribution are set by the four different agencies in the US. These four agencies are:

1. The Food and Drug Administration (FDA), that belongs as a part in the Department of Health and Human Services (DHHS)
2. The Food Inspection Service (FSIS), that is part of the US Department of Agriculture (USDA)
3. The Environmental Protection Agency (EPA)
4. The National Marine Fisheries Service (NMFS), that belongs as a part in the Department of Commerce.

(Institute of Medicine US and National Research Council Committee 1998).

Each of these players on the list have their own role on monitoring, that the food industry of USA stays safe and fair to the consumers. The main task and jurisdiction of FDA is to assure and oversee that domestic and imported foods that are distributed in the places of selling to consumers are safe, clean, nutritional, wholesome and adequately and honestly labeled. The Center for Food Safety and Applied Nutrition (CFSAN) that belongs to the FDA is responsible for overlooking and for the jurisdiction of food processing plants and they also have the responsibility of approving and surveilling the food-animal drugs, feed additives and all food additives that may be included in a food. The Food Inspection Service or FSIS is seeking to ensure that both meat and poultry products on the markets for human consumption are marked correctly, that they are safe and wholesome, and they are packaged and labeled correctly should they move inside the states or internationally. (Institute of Medicine US and National Research Council Committee 1998).

The Environmental Protection Agency or EPA is the one who licenses all pesticide products that are distributed within the United States and are the ones that establish tolerances for pesticide residues on or in animal feed and food commodities. The EPA is responsible for providing protection against other environmental microbial and chemical contaminants in water and air that might be a threat in the food supply safety, as well as the use of pesticides safely and to provide safety for people who work around or with them and to protect the inhabitants from exposing to them through air. (Institute of Medicine US and National Research Council Committee 1998).

The National Marine Fisheries Service or NMFS conducts voluntarily seafood inspections and a grading program that acts mainly as an activity of food quality. However, the mandatory regulation of the procession of seafood belongs under the FDA. (Institute of Medicine US and National Research Council Committee 1998).

Where as in the EU, it is voluntary, whatever the place of commerce wants to give all the information orally or in the form of a label, in the United States it is required to give out a nutritional label on the products with a few exceptions keeping in mind. The FDA enacted a new law on the 7th of May 2018 that any restaurant that operates in more than 20 locations has to provide their customers with a count of calories on their items. The new law is valid for all businesses that offer prepared food as self-service, even a booth at an airport or built-in bakery that operates aside of a grocery store. Not only the calorie count, the business is required to have the same name for the same items at all of their stores. According to the new law enacted by the FDA the calorie count needs to be on the menu, but all other nutritional facts are not required to be there. However, the stores need to be able to provide the nutritional info as written; not only orally as in the EU; upon request. These nutritional facts include total fat, total calories, saturated fat, cholesterol, sodium, trans fat, total carbohydrates, fiber, protein and sugars. (Hickman 2019.)

2.2 Labelling of products in Finland

In Finland, where the restaurant of the commissioning company is operating, the display style and the order of the information as well as the size of the text are regulated. The regulations do influence how the energy and the ingredients in the products are named, as well the nutritional list is limited in order to make it more functional and nationally readable. The nutritional information is supposed to be primarily marked in a clear table, where all the numbers are aligned. If, for some reason this is not possible due to the size or shape of the package, the nutritional information should be aligned on horizontal rows. The nutritional information needs to be displayed in words and numbers. Pictures and symbols are also a possible way of marking, but according to the legislation they do not replace the text. The nutritional information is always displayed according to hundred grams of the product or according to hundred millilitres. As an addition, the nutritional information can be displayed according to one portion or one consuming unit or in correlation to benchmarking according to daily intake. One consuming unit means, that the it can be consumed alone, which means that it may not be the same as a portion, for example one piece of chocolate or cookie is one consuming unit, but a portion may include more than one piece of chocolate or a cookie. If, for some reason, there is a need to inform the nutrient information and energy containments according to one portion or one consuming unit the following rules apply: the weight needs to be visible right next to the nutritional information, the amount of portions or units is informed in the packaging. All the necessary

nutritional information, that need be displayed, can be seen in the illustration below. (Ruokavirasto 2019 & Regulation on foodstuffs by European Parliament and Council on 25th of November 2011 1169/ 2011 EC 2018).

Example. Nutrient content

	per 100g o kJ / o kcal	per portion X g o kJ / o kcal
Energy		
Fat/	-	-
which is saturated	-	-
Carbohydrates/	-	-
of which is sugar	-	-
dietary fiber	-	-
protein	-	-
salt	-	-
vitamin C	- (X %) *	- (X %) *
*Benchmark for daily intake		

Figure 2: Example of a nutrient content label (made by author in Canva)

As the reader can see from Illustration 3, the nutrient content label is easy to read due to its simple structure and visualization. All the necessary nutrients; energy, fat / which is saturated, carbohydrates/ of which is sugar, dietary fiber, protein, salt and vitamin C; are listed on the left-hand side under each other. In the middle column the nutrients are given a value according to consuming hundred grams of the product. In some labels you can find also a percentage, that this nutrient covers from the whole mass. The last column shows the quantities of nutrients that can be found in one portion, which in this case is two point five deciliters. As an addition, the Vitamin C is required to be marked in percentages in order for the consumer to find a benchmark for daily intake when reviewing the product. (Evira 2019 & The legislation set by European Parliament and Council on 25th of November 2011 N:o 1169/ 2011 2018).

The legislation also discusses in its attachments, that it is possible as an addition; but not as a necessity; to mark the energy contents and the nutrient contents as percentages from the benchmark of the daily intake. If the previously mentioned contents are given in percentages as an addition to hundred grams or hundred milliliters, there must be a mentioning close to it "In accordance to the daily intake of an adult (8400 Kj/ 2000kcal)"(The legislation set by European Parliament and Council on 25th of November 2011 N:o 1169/ 2011 2018.) The previously mentioned contents can also be given according to or instead of one portion or one consuming portion. If the nutrient or health information claim given is included in the nutritional information label, for example fiber, and there is a mentioning of rich in fiber, nothing else is needed. If the previously mentioned ingredient does not belong to the notifiable nutrients, for example omega 3 fatty acid, the amount of it needs to

be visible close to the nutrient information label; in other words, not in the nutritional information graphics, but rather below it. (The legislation set by European Parliament and Council on 25th of November 2011 N:o 1169/ 2011 2018 & Ruokavirasto 2019).

The lactose free and low lactose products are currently assessed as a special dietary instead of a nutrient or health information claim. In the European Union there is no common guideline, so in Finland the operators apply according to the common guidelines of Nordic countries. Meaning, that the lactose free products are the ones that contain less than ten milligrams per hundred grams, or hundred milliliters of lactose and the low lactose products get the label if they include less than one gram per hundred grams or hundred milliliters of lactose. The normal products, that are labelled as gluten free in Finland can consist maximum of twenty milligrams per one kilogram of gluten. In Finland, it is not possible to label a product as low gluten containing product. (The legislation set by European Parliament and Council on 25th of November 2011 N:o 1169/ 2011 2018 & Ruokavirasto 2019). This mainly applies only to packed products, that are packed in the production point and only opened after the purchase by the final consumer.

The unpacked products have some similarities with the labelling regulation set by the European Parliament, but they belong to the group of enactment; like earlier discussed; set by the Ministry of Agriculture and Forestry. The legislation states that, if the final distribution point of sales of the unpacked products want to inform the consumers about the products nutrients, this information should be available next to the sold products or it should be given orally upon request. However, if the distribution point wants to inform the nutritional information and the ingredients voluntarily, they should inform the following: ingredients, energy, fats, saturated fats, sugars and salt, as well as the origin country of the meat. (Enactment set by Ministry of Agriculture and Forestry N:o: 834/2014 2014).

2.3 The Food Trends of Finnish consumers in 2019

The K:n Ruokailmiöt 2019 survey done in October 2018 got in total of 1069 replies from consumers around Finland. The intake to the survey was balanced to relate to the population of Finland according to age, sex and the place of living. The survey was conducted by Frankly Partners and it was the done for the second time by the K-group. (K-Ryhmän trendikatsaus 2018). The report states what kind of products Finnish people decide to put into their baskets in stores during the year 2019 and what kind of trends are there going to be that make people talk. The results of the survey rely on the K-Group experts and K-Group retailers interviews as well as to the broad intake from the answers of the audience

who are part of the Kylä-customer association. According to the survey results a well-being in everyday life and acknowledged consumption were the biggest trends in the everyday life of the Finns. The acknowledged consumption was a key factor for the Finns with more than fifty five percent answering so and it is still predicted to arise in the future. (K-Ryhmä 2019).

As the report of K-ryhmä states that the acknowledged consumption will arise in the future, it can be said that also creating this product along with this thesis for the consumers is well needed. According to K-Group the phenomenon of acknowledged consumption has been growing with an annual factor of ten percent. If people want to consume more knowledgeable in the grocery stores, then at some point it might expand also to restaurants and food industry in general.

According to the Ruokailmiöt 2019 report, the everyday well-being was also a key factor when making purchasing decisions, but the growth of it was not as great as it was for the first one on the list. If the everyday well-being is reviewed together with its subgroup of exact well-being and its growth, the report states that well-being in general is growing all the time as a trend. From the trends that can be categorized as having an impact on the feelings, the most growth in the trends will happen in the food refinement trend during the year 2019 according to the report. People want to get inspired in food refinement from professional chefs and the stories behind the products play a greater role when reviewing this trend. The second one; food adventures; has grown more subtle, but was mentioned on the list, because the respondents have stated to be keen on trying new flavors and the food plays a greater role on finding fellowship as well as new experiences. (K-Ryhmä 2019).

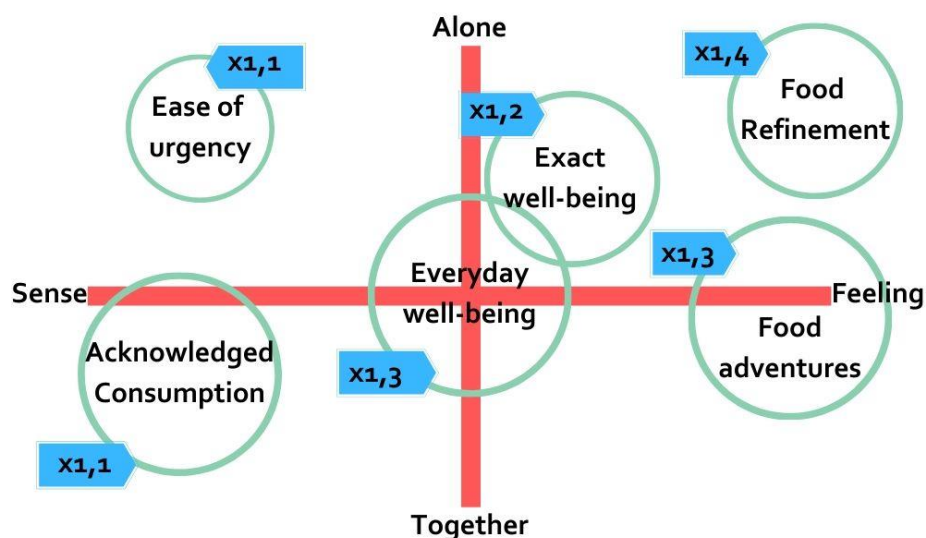


Figure 3: Results of the Ruokailmiöt 2019 survey (K-Ryhmä 2019, 3.)

As you can see from illustration 4, that has been created according to the survey report, there were other trends that ended up on the list for food trends for 2019. The illustration can be read in horizontal axis by looking at the point of view from sense to feeling and the vertical axis from the point of view of either being alone or together. The circles in the illustration are located according to these horizontal and vertical point of views and each circle has been nominated in order to give a clear picture of the trend. The multipliers in the illustration clarify on the potential growth of each trend during the year 2019.

At time of writing this thesis, K-Group published their new K:n Ruokailmiöt report for the year 2020 with the same principles and strategy as it was consulted in 2018. The following chapter describes more thoroughly and compares the predictions for the year 2020 made in the end of 2019 compared to the predictions that were made in the end of year 2018 for the year of 2019. According to the report the acknowledged consumption will be still the biggest trend that will affect grocery shopping just like it was in the year 2019. At the same the food adventures category will grow in the year 2020 and become more diverse, the consumers will want more easy and fast ways to try new flavors and therefore the restaurant level ready made food will be sold more in the grocery stores. The personality is predicted to come more on the surface in the customers buying decisions; especially when looking at the fore-running consumers; almost half of the consumers want all the time something new to try out. According to the specialists of K-Group the well-being trend is already part of every-day life, but the exact well-being will grow even stronger than it was predicted for the year 2019. With the exact well-being they mean for example, that the consumer has tailored and planned their diet according to their own needs by combining various ingredients that can be found from the grocery store. The Illustration 5 below shows the actual growth percentage in the year 2019 of each trend. K-Ryhmä 2020).

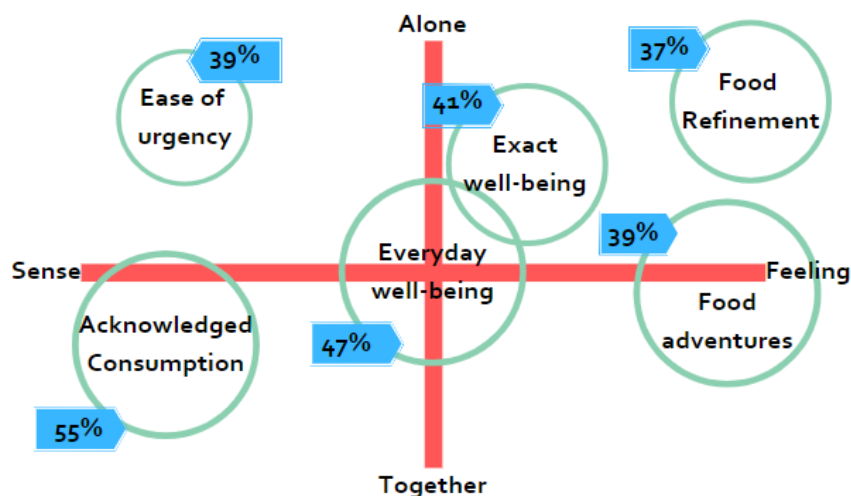


Figure 4: The food trends and their actual growth in the year 2019 (K-Ruoka 2020.)

3 Creation of the nutritional label

This chapter discusses the goals and aims of this product-oriented thesis, as well as the creation process of the product; nutrient information label; itself. This chapter begins with an introduction of the commissioning company in order for the reader to understand scope. The second subchapter will discuss more thoroughly of the process itself, what was done and how and what kind of tools were used in order to reach the outcome. The aims and goals of this product-oriented thesis were:

The main aim and goal of this thesis is to provide more nutritional information to the customers

The sub goals and sub aim of this thesis include:

- Creating a nutrient labelling product for the company HSMHost Finland and their operating restaurant Helsinki Market
- Creating nutritional labels for smoothies and breads that are sold in Helsinki Market
- Making the allergens information available for the customer as well as defining what does each allergen marking stand for
- Providing a learning material to the company on how to create the nutritional labels

As the thesis is conducted in a commission base, the commissioning company has told the author that, they have a need for a nutritional label into their products of the items that are sold in the unit Helsinki Market. Another key factor for conducting this thesis and providing the commissioning company the final product is that, they have predicted that the Ruokavirasto might be asking the labels to be in the outselling products in the future. Therefore, the company wants to take a head start and created a need for such products before it is set in the regulations and rules.

3.1 The presentation of the commissioning company

This chapter introduces the commission company HMSHost Finland Oy, which is part of the HMSHost International restaurateur group HMSHost International and the whole group is subsidised by a major world player in the food and hospitality industry called Autogrill Società per azioni (later referred as S.p.A). This chapter also discusses the operating environment of HMSHost Finland Oy as well as their biggest competitors and their history.

3.2 Autogrill S.p.A and its subsidiaries

Autogrill S.p.A was founded in 1977 when the Italian government holding company took over three Italian catering companies: Pavesi, Motta and Alemagna and merged them together into a new entity. Nowadays, it is an Italian-based, multinational catering company.

However, the roots of the company go all the way back to 1947, when a young entrepreneur from Novara, Italy decided to open the first Autogrill right after the war. (Autogrill S.p.A 2019).

It is overseen with a 50.1% share by the Edizione Holding Investment vehicle of the Benetton family. The Autogrill S.p.A has operations in thirty-one different countries, mainly in North America and Europe, with their own over 250 proprietary and licensed brands. In these thirty-one countries they have more than 60,000 employees and about 4,000 units in around 1,000 different locations. The current chairman is Paolo Zannoni and their CEO is Gianmario Tondato da Ruos. Over 90% of their profit is generated by their units at airports and service areas along the motorways that are operated with a concession business model. They have strategic agreements with around forty of the leading world's brands such as McDonalds, Starbucks, Burger King and Pizza Hut. They have almost 100 national and local franchise brands and almost 150 proprietary group brands, as well as a rich variety of proprietary bespoke brands (Autogrill S.p.A 2019).

Below, in the Figure 5 you can find more facts and figures of Autogrill S.p.A.



Figure 5 : Autogrill S.p.A facts and figures (Autogrill S.p.A 2019.)

As you can see from illustration 1, the Autogrill S.p.A operates globally and in various locations. In the illustration the international facts part includes the locations in Northern Europe such as Netherlands, United Kingdom, Ireland, Sweden, Denmark, Finland and Norway as well as the rest of world meaning UAE, Turkey, Russia, India, Indonesia, Malaysia, Vietnam, Australia, New Zealand and China. In all these locations they serve over 900 million travellers annually and in 2018 they generated revenues over 4,695.3 million euros. HMSHost International is subsidised by Autogrill S.p.A and is a global restaurateur. And HMSHost Finland Oy is part of the HMSHost International Group. (Autogrill S.p.A 2019).

HMSHost Finland started operating at the Airport of Helsinki in 2013 by opening their first units to the airport. Nowadays they have over 400 employees and eighteen units (HMSHost Finland 2019). In the year 2018 the company had a turnover of 30,9 million euros. The operational director of HMSHost Finland Oy is Juha Räsänen. (Fonecta 2019).

3.3 The set-up process for nutritional label

The author started the process of creating the nutritional labelling for the products by talking with the contact person from the commissioning company. Together, with the contact person, it was decided, that for conducting this thesis the products that will be counted in will be five different breads and five different drinks that are both made in the unit that this product oriented thesis is done for. These products were chosen due to the fact, that they acted out as a baseline for our product development before and will most likely do so in the future. The a la carte dishes for example from the hot side of the kitchen were not chosen for this study, because the menu of the hot side is constantly changing, so it was easier to choose something more permanent and that will most likely not change for a while. Also, by choosing these products, the commissioning company and the writer of this thesis think, a baseline can be determined for the future as the ingredients in the breads will be most definitely the same in the future but with new flavors or add-ons. These five breads included: white rustica bread with salami, white rustica bread with chicken, white rustica bread with tomatoes and mozzarella, as well as rye bread filled with ham and cheese and rye bread filled with salmon. And the five drinks included: mango-orange smoothie, forest fruit juice, blueberry smoothie, orange juice and strawberry smoothie.

The author started to collect the data by first taking a scope of the products in order to get an understanding of the weights, amounts of fillings and ingredients inside the bread. This was done so, that the author made five breads of each kind of breads and used a scale in order to measure each item and ingredient that was put inside these five breads. The breads are usually done inside the restaurant during the morning in a mass production way, where all the rye breads are done at the same time and the white rustica breads are done at the same time. But, due to the data collection done by the author, it was easier to make each bread type one by one. Every piece of salad, tomato, cucumber, piece of cheese, the amount of sauces put from a piping bag onto the bread, ham, salami and mozzarella that was put inside or on the breads was measured out by using a scale. This way the author could be more sure of the results as well as of the value, that the ready-made product of this thesis gives to the company. The author wrote down the results and measurements on a piece of paper in order to later put the data into Excel; the reader can

see an example of this in Appendix 1; and calculate the average weight of the product. Excel was chosen by the author as a tool to do the calculations, because the author had previous knowledge on the application and knew how to use Excel into its advantage and how to get the wanted outcome by using Excel. Also, it was crucial during this point that, if the author found out great differences in the amounts of ingredients compared to the recipes, he was responsible of informing the findings onwards to the contact person inside the commissioning company. This phase can be also called as standardization of the discussed matter.

After the standardization of this product creation, the author transferred all the data collected on the paper into Excel and calculated the average weights for each ingredient inside the breads as well as the average weight of the ready-made bread product. As the smoothies were made by another person and in one-liter boxes, the author had to calculate also the average weights of the ingredients, that would be put into one portion or cup of smoothie or juice. This calculation was done by comparing the weight of the one cup into one one-liter box portion of the ready-made product. When the Excel calculations were finalized, the author transferred the data into an online service provided by Finnish Institute for Health and Welfare. The Finnish Institute for Health and Welfare provides an online service called Fineli, which enables a person to keep a dietary diary by writing down each component of consumption throughout the day or week and the Institute has an online database of the most popular ingredients and products used in everyday life. Fineli was selected as a way of working, because even though the author did not have previous knowledge about the service, it was easy to use since day one and it did all the nutritional calculations automatically just by inserting the ingredients of the products. The author transferred the data into the dietary diet on one of days as a meal or product that has been consumed for one day to get the nutritional information of each product more conveniently. However, the author faced some problems during the listing due to not finding the exact same ingredient ;for example when trying to find out the sauces that are put in the breads; on the list as well as not having them on the list at all. The author corrected these mistakes by finding the equivalent product from the list with a different name as well as by double checking the nutritional information from the real product itself from the restaurant Helsinki Market.

When the author had done all these calculations and transformation of data of each product, it was possible to start conducting the final product of this thesis, that was the main goal as well. The author gathered the layout of the signs for the products from the commissioning company in order to design these labels again. The Appendix 2 shows the

reader an example of the labels that will be used for both breads and smoothies. The labels that are currently at use only display the price and name of the product for the customer and whenever the customer wants more information about the product, this needs to be asked from the staff of the restaurant. When the author has created the final product, the customer will be able to see all the nutrient information and allergens information from the labels themselves if they feel the information to be necessary for them. These labels will display all the necessary information to the customers at once. The following information will be added on the labels: Energy, fat, saturated fat, carbohydrates, sugar, protein, dietary fiber and the amount of salt and vitamin C.

3.4 The labelling processes

As already discussed in the previous chapter, the author started by gathering all necessary information and layouts from the commissioning company in order to finalize the products, nutritional label. In the Appendix 2, Appendix 2.1 and Appendix 2.2, the reader can see all the final of the labels that will be visible to the customer in the future inside the restaurant on top of the display in front of the product. The reader can clearly see that everything in the label is visualized and can be easily read by the customer immediately. The header of the label displays the name of the product in big letters, the price of the product is displayed under the heading with a smaller font. Under the heading and the price are the allergens displayed as small easily visualized icons. This will tell the customer with special diets if there is something they must take into consideration. The allergens symbol the author got from his supervisor and chose the labels to the products that were necessary for each product label. By using the symbols instead of words, it is clear to the customer and even if an international customer that is not fluent in English language can understand them. For the same reason the nutritional labels were created in English language.

Next to the product display or on top of the product display in the restaurant will be placed a glossary with all the allergen illustrations explained to the customer should they not understand which symbol means what. The contact person of the commissioning company had had the need for such a glossary; explanation chart; for allergens symbols for quite a time, therefore it was a great side product created by conducting this thesis to the company. These symbols were also provided to the author by the commissioning company and the author only chose the necessary ones from the list given by the company. This will be a huge improvement in the customer journey satisfaction as they can easily read all the information next to the product display and do not need to wonder around the whole restaurant in order to access the information to their concern. Underneath the allergen

symbol the reader can see the nutritional facts table, that the author has created by using Microsoft Word.

The nutrients facts table displays the amount of energy, fat, carbohydrates, protein, dietary fiber, salt and vitamin C if needed, like in the smoothie example can be seen. These nutritional contents have been displayed in the label according to one portion, which can vary depending on the product. The author felt like it will be more accurate to the customer to know what the actual product consists of instead of marking it down according to per one hundred grams, because the products weights are standardized and according to the recipes in one portion. On the bottom of the whole label, the reader can find the logo of the restaurant just like there was before in the price tags of the products in the restaurant.

The whole label has been created by Microsoft Word, because the base for the layout was given to the author in a Word file format and because the author has previous knowledge of using Microsoft Word. The author did face some difficulties while working on the labels despite the previous experience, because the layouts were done by a different person inside the company and the symbols were not formatted in the right way so that they would be easy to copy them to the final label. The author feels like it would've taken more time to create new and own symbols, at times it would've been easier to work towards the final product if the author had done by himself.

As the customers have been asking at times about the nutrients in the food, the author feels like the nutritional facts table in the products are also a huge improvement in the customer journey and in the satisfaction, because the customer is able to get more information just by looking at the price tag of the product that is on display. Also, the customer journey inside the restaurant will change drastically after the labels will be available for the customers, because before the customer has looked at the products and if they feel like they need more information on diets, allergens etc. they need to walk to the cashier or closest worker to ask for it. But, with these new labels they will not have to spend so much time to do their purchase decision, because they get all the necessary information from one place.

4 Discussion and Conclusion

This chapter will be the final chapter of this thesis and its main focus is to review how well the product creation process was supported by the theoretical framework of the literacy piece, as well as what kind of feedback did the author of the thesis get from the commissioning company as well as the customers of the restaurant. In this chapter the final chapter will discuss more about the learning outcomes from the perspective of the author.

4.1 Theoretical Framework versus practical implementation and creation

The theoretical framework supported well the creation process, because without the primary research the author would not have been able to conduct the nutritional labels ; the main productional outcome of this thesis; for the products served in the restaurant of the commissioning company that are done according to the rules and regulations set by the Ruokavirasto. The theoretical framework and the sources for this productional thesis were selected and chosen on a basis to create support for the product conducting phase as well as to create a clear understanding for the reader what the rules and regulations and their differences are in Finland as well as in the European Union when it comes to packed and unpacked goods. The author learned throughout the writing phase of the theoretical framework that the unpacked goods sold in Finland are not so regulated in Finland compared to packed goods.

Because of the geographical location and Finland being part of the European Union, it was important to discuss and go through the rules and regulations that apply within the European Union. By discussing first the rules and regulations set by European Union and comparing them to the ones in the United States, it created a broader picture to the reader of the rules and regulations on a wider scale and then it was a neutral movement to go more into detail with the rules and regulations within Finland and what needs to be taken into account when creating food labels in Finland for unpacked goods. After this discussion and comparison between the European Union and Finnish legislation, regulations and rules, it was necessary for the author to take another vision into comparison, and this comparison was found from the legislation that is practiced in the United States. It is visible for both the reader and the author that the rules and regulations as well as the authorities supervising them in the United States is way more complicated than in the European Union and in Finland. The theoretical framework as a whole gives the reader an opportunity to review which practices are taken into consideration in Finland set by the European Union and which practices are set or moderated into use by the government and authorities in Finland.

The final chapter of the theoretical framework reviewed a research that was conducted by Kesko in the 2018. The final results of the research were displayed in the beginning of the year 2019 and the results of the research gave support to the authors main goal; providing more nutritional information to the customers; and that it is necessary to conduct such nutritional labels even into restaurants and to their products. Even though acknowledged consumption was not in the highest position of the results, it was one of the displayed results in the graph, that Kesko had conducted from the results and they had also predicted that it will arise in the upcoming years.

All the food labels created by the author to the commission company restaurant were conducted according to the rules and regulations set by the Ruokavirasto and the allergens symbols used in the labels were informative enough in order to give the customers a clear understanding of what allergens are included in which products.

4.2 Feedback revision and future of the product

The author has gotten instructions from the contact person in the commissioning company, that the author needs to educate the Head Chef of the commissioning company of the labelling system and mainly the responsibility for updating the labels and their information will be handed over to the Kitchen Manager of the restaurant for the future. The reader can see from Appendix 4 the training material that the author has created for the Head Chef of HMSHost Finland in order to visualize the steps on how to create nutritional label and price tag. By educating the system to the Head Chef of the commissioning company, the Head Chef has the freedom to revise and make a decision on whether the system will be implemented into other units of the company in the future or not. The author feels like these labels would not be very beneficial for other products in the restaurant that this was conducted for, as the products and menus in the a la carte side change quite often ; within every four to five months; and it would require a lot of hours to invest on office hours for the Kitchen Manager. Also, other products that are produced in the cold side of the kitchen change every six months or so and therefore it takes more time to update the labels than to just deliver the information to the staff who can then hand out the nutritional info to the customer if necessary.

The feedback of the labels and the allergens glossary have been mainly positive, here is a couple of comments that were said by the contact person of the commissioning company as well as couple of customers.

The contact person of the commissioning company has given the author the following feedback regarding the thesis writing process as well as the product utilization. The commissioning company has not yet been able to put in practice the final product of this thesis as the writing process is still on going. The contact person has written down in the feedback form, that the final product of this thesis will be in daily use in the operational functions of the restaurant and it can be updated according to the needs of the company. According to the contact person the product and the thesis has been somewhat useful; three out of five; for the company on a five-point scale of “very little useful” to “very useful”. And according to the contact person this thesis has said using the same scale, that the thesis has been useful; four out of five, when evaluating the value that this thesis gives to the commissioning company regarding new innovations, new ways of working, product wise or new information. The contact person has given open feedback, that she has been very satisfied with the process of this thesis, because the company has had the chance to get the exact data in the right form and the company as well as the author has been able to make changes during the process of the thesis in order to maximize the outcome of the thesis process. Last, but not least, the contact person has given positive feedback to the author, that the author has been proactive in problem solving and has been working mainly self-driven. She believes that the product of this thesis will be very beneficial for the company in the future.

Also, feedback was asked from the restaurant manager of the authors unit and he has claimed in his written feedback that he really likes the theme of the thesis and he thinks it does suit the concept of the restaurant Helsinki Market well. He thinks the outcome product of the thesis; nutritional value and the label; is something new and fresh and it fits to the current trends of possible buyers wanting to know more about the contents of their products. He really thinks the nutritional information brings added value. He said the product has a simple presentation, it is well described and designed according to the standards of the restaurant. He has also discussed in the feedback, that the author could put more thoughts into how the customer will find the information, because having so many options and setting it as a replacer for the price tags, it would make it very crowded for the eyes. He has suggested, that in the future it could be a leaflet or a small info book, that could be placed in couple of locations around the restaurant. Overall the restaurant manager is very pleased with the results and is willing to look to develop it further so that it could be implemented in Helsinki Market soon.

Last, but not least, the author conducted a quick open-end question-based chat in the restaurant during a quiet morning. The author found three customers who were willing to answer to the questions. The first one was a Finnish 35-year-old lady, traveling for business.

She thought it would bring more added value into her overall experience if the allergens information and nutritional information were displayed and easier to find than they currently are. The author showed the labels to the customer and asked her opinion about it and she said that the labels were clear, easy to read and all necessary information was displayed in a neat way, the only thing in her opinion that was lacking was a picture of the product which she thought could be a nice addition. The last question was open comments and the lady said that she thinks the labels are a cool idea and that a lot of consumers nowadays appreciate getting the information first handed rather than asking from a worker. The two last customers that were asked the same questions were travelling together and were also Finnish, 40 years-old, travelling for a vacation and women. They answered together to each question and thought the allergens information is far more important than for the nutritional information. Their opinion about the labels were much like similar to the one before, that the labels are clear to read, but they would like to see the allergens symbols a bit bigger and the nutritional information smaller, because it is not so important to them. As an open comment they told the author, that they think it is important in the modern world that the consumer sees what they buy and pay for and very important to get the allergens information rather easier than the hard way.

4.3 Assessment of learning

The author feels like he has learned a lot throughout the process of the thesis conduction. The author specializes in his hospitality studies into travel tourism and events and therefore had not much of previous knowledge on the legislations or rules of the food and beverage industry. However, the author had prior work experience from being a trainer in McDonald's where food safety and revision of processes as well as from the army as a group leader of the cooks where food cargo and handling food in various environments was the primary task. Even though the author had not much experience prior the conduction of this thesis, the author was keen on learning about it and feels like has a learned a lot of product creation process, project and time handling as well developed his skills in research about a subject that was not familiar to him before.

Also, some of the tools, that were not familiar to him before; like Fineli Ruokapäiväkirja; are no very familiar to the author and the author has even used the Ruokapäiväkirja function in his everyday life to track on his diets just for curiosity. The learning curve of the subject and the thesis has mainly been upwards and upbuilding throughout the whole writing process. The author feels also, that he has conducted more than what was officially first agreed on; like the allergens glossary; but did not complain about it at all but rather took it as an additional challenge and boosted the will to learn more about the industry

and its functions where the author will most likely work in the near future. By conducting this thesis, the author has created a great interest into research and product development department of restaurants and would be willing to look into that category of the industry in the near future.

The author feels like all the aims and goals, that were set in the beginning of the writing process of the thesis are met, which were:

The main aim and goal of this thesis is:

- to provide more nutritional information to the customers

The sub goals and sub aim of this thesis include:

- Creating a nutrient labelling product for the company HSMHost Finland and their operating restaurant Helsinki Market
- Creating nutritional labels for smoothies and breads that are sold in Helsinki Market
- Making the allergens information available for the customer as well as defining what does each allergen marking stand for
- Providing a learning material to the company on how to create the nutritional labels

However, the author is a bit disappointed, because due to his own projects in personal life as well as a great work experience opportunity provided by the school, the author was not able to finalize the thesis in the deadline that was primarily set before the start of writing. But, on the other hand, doing this thesis process a bit slower than anticipated, it gave the author and commissioning company time to generate and develop the idea and the layout of the final product. If the author would have conducted the thesis into presentation phase in three months, the final outcome of the product and its quality could not have been as good as it is now and the commissioning company would not be so satisfied.

References

- Autogrill S.p.A. 2015. About Us, Our History. URL: <https://www.autogrill.com/en/about-us/our-history>. Accessed: 17 October 2019
- Autogrill S.p.A. 2019. About Us, Us at a glance. URL: <https://www.autogrill.com/en/about-us/us-glance> . Accessed: 15 October 2019
- Finnish Advisory Board on Research Integrity 2013. Responsible conduct of research and procedures for handling allegations of misconduct in Finland. Guidelines of the Finnish Advisory Board on Research Integrity 2012. Finnish Advisory Board on Research Integrity. Helsinki. URL: http://www.tenk.fi/sites/tenk.fi/files/HTK_ohje_2012.pdf. Accessed: 20 September 2019.
- Fonecta. 2019. Hmshost Finland Oy. URL: <https://www.finder.fi/Myyntiedust/Hmshost+Finland+Oy/Vantaa/yhteystiedot/2855943>. Accessed: 20 January 2020
- Haaga-Helia 2015. Degree regulations. URL: http://www.haaga-helia.fi/sites/default/files/Kuvat-ja-liitteet/Opinto-opas/degree_regulations.pdf?userLang=en. Accessed: 20 September 2019.
- Haaga-Helia 2016. Mynet illustration image on Haaga-Helia MyNet. URL: <https://mynet.Haaga-Helia.fi/en/studies/thesis-bachelor/Pages/default.aspx>. Accessed: 20 September 2019.
- Hickman, K. 2019. U.S Chain Restaurants Are Now Required to Put This on Their Menu. Taste Of Home. URL: <https://www.tasteofhome.com/article/restaurant-menu-law/>. Accessed: 17 December 2019
- HMS Host. 2019. Fact Sheet. URL: <https://www.hmshost.com/news/facts>. Accessed: 20 October 2019
- HMS Host International. 2019. Who we are. URL: <https://hmshost.international/about-us/who-we-are>. Accessed: 21 January 2020
- Institute of Medicine (US) and National Research Council (US) Committee to Ensure Safe Food from Production to Consumption. Ensuring Safe Food: From Production to Consumption. National Academies Press (US). Washington (DC). 1998. 2, The Current US

Food Safety System. URL: <https://www.ncbi.nlm.nih.gov/books/NBK209121/>. Accessed: 18 December 2019

Kesko. 2018. K:n Ruokailmiöt 2019 tutkimus. URL: <https://kesko.fi/contentassets/52b52d40bdd843d98c8db0319847ba88/ruokailmiot-2019-.pdf>. Accessed: 10 December 2019

Kesko. 2020. K- Ryhmän trendikatsaus 2020. URL: <https://kesko.fi/globalassets/pdf-tiedostot/ruokailmiot-k-ryhman-trendikatsaus-2020-sivut.pdf>. Accessed: 20 February 2020

Kesko. 2020. Trendikatsaus 2020: Näin Trendit Näkyvät Suomalaisten ruokaostokoreissa. URL: https://kesko.fi/media/uutiset-ja-tiedotteet/uutiset/2019/k-ryhman-vuosittainen-trendikatsaus-gluteenittomuus-ja-maidottomuus-saavat-rinnalleen-entista-kohdennetumpia-tasmaruoka/?_ga=2.182722084.341330592.1583497008-1939508881.1579601566. Accessed: 20 February 2020

Ministry of Agriculture and Forestry of Finland. 2014. Food Information and health and nutrition claims. URL: https://mmm.fi/pakkausmerkinnat-ravitsemus-ja-terveysvaiteet?p_p_id=56_INSTANCE_L7tmgAiqfgKY&p_p_lifecycle=0&p_p_state=normal&p_p_mode=view&p_p_col_id=column-2&p_p_col_count=3&_56_INSTANCE_L7tmgAiqfgKY_languageId=en_US. Accessed: 20 October 2019

Ruokavirasto. 2018. Elintarvikkeista annettavat tiedot. p. 9-11 URL: https://www.ruokavirasto.fi/globalassets/yritykset/elintarvikeala/toiminnan-aloittaminen/pk/pakkausmerkinnat/opas_elintarvikkeista_annettavat_tiedot.pdf Accessed: 10 January 2020

U.S Food and Drug Administration. 2017. Small Business Nutrition Labeling Exemption. URL: <https://www.fda.gov/food/labeling-nutrition-guidance-documents-regulatory-information/small-business-nutrition-labeling-exemption>. Accessed: 10 January 2020

Valtioneuvoston asetus ammattikorkeakouluista 1129/2014. Decree on Universities of Applied Sciences. URL: <http://www.finlex.fi/fi/laki/ajantasa/2014/20141129>. Accessed: 20 September 2016.

Appendices

Appendix 1. Example of standardization calculation in Excel

FOREST FRUIT 1L	1	2	3	4	5		
							AVERAGE WEIGHT
berry mix	352	421	367	769	367		455
blueberry soup	704	842	734	385	734		680
ready made juice (box)	1056	1263	1101	1154	1101		1135
ready made juice (cups)	237	250	243	246	243		244
STRAWBERRY SMOOTHIE 1L	1	2	3	4	5		
							AVERAGE WEIGHT
youghurt	1071	1127	1177	1020	1139		1107
strawberry	361	380	397	344	384		373
banana	195	205	214	186	207		202
honey	35	37	38	33	37		36
ready made juice (box)	1662	1749	1826	1583	1768		1718
ready made juice (cups)	234	247	257	223	250		242

Appendix 2. An example of the new price tag and nutritional information label

RYE SALMON BREAD

7,95€



NUTRITIONAL CONTENT PER PORTION		195g
Energy		1832 kJ / 438 kcal
Fat / which is saturated		24,2 g / 2,9 g
Carbohydrates /		27,5 g
of which is sugar		6,5 g
Protein		24,4 g
Dietary fiber		6,8 g
Salt		1,8 g

HELSINKI MARKET
EAT WELL · EAT FRESH · EAT LOCAL

HAM AND CHEESE RYE BREAD

7,95€



NUTRITIONAL CONTENT PER PORTION		159g
Energy		1133 kJ / 271 kcal
Fat / which is saturated		9,2 g / 4,4 g
Carbohydrates /		27,3 g
of which is sugar		6,6 g
Protein		15,6 g
Dietary fiber		6,9 g
Salt		1,52 g

HELSINKI MARKET
EAT WELL · EAT FRESH · EAT LOCAL

CHICKEN SANDWICH

9,90€



NUTRITIONAL CONTENT PER PORTION		276g
Energy		2619 kJ / 626 kcal
Fat / which is saturated		31,3 g / 4,0 g
Carbohydrates /		61,7 g
of which is sugar		5,7 g
Protein		21,9 g
Dietary fiber		4,8 g
Salt		1,8 g

HELSINKI MARKET
EAT WELL · EAT FRESH · EAT LOCAL

SALAMI SANDWICH

9,90€



NUTRITIONAL CONTENT PER PORTION		286g
Energy		2569 kJ / 614 kcal
Fat / which is saturated		27,1 g / 14,3 g
Carbohydrates /		59,8 g
of which is sugar		3,4 g
Protein		19,2 g
Dietary fiber		4,6 g
Salt		3,45 g

HELSINKI MARKET
EAT WELL · EAT FRESH · EAT LOCAL

Appendix 2.1. An example of the new price tags and nutritional labels in the products

CAPRESE SANDWICH

9,90€



NUTRITIONAL CONTENT PER PORTION	298g
Energy	2639 kJ / 631 kcal
Fat / which is saturated	28,0 g / 13,4 g
Carbohydrates / of which is sugar	63,2 g / 3,5 g
Protein	27,5 g
Dietary fiber	5,2 g
Salt	2,19 g



ORANGE JUICE

4,90€



NUTRITIONAL CONTENT PER PORTION	255g
Energy	492 kJ / 118 kcal
Fat / which is saturated	0,4 g / <0,1 g
Carbohydrates / of which is sugar	25,5 g / 25,5 g
Protein	1,4 g
Dietary fiber	0 g
Salt	0 g
Vitamin C	92 mg (115%*)

*From the suggested daily intake



STRAWBERRY SMOOTHIE

4,90€

LACTOSE FREE

NUTRITIONAL CONTENT PER PORTION	242g
Energy	626 kJ / 150 kcal
Fat / which is saturated	4,2 g / 2,6 g
Carbohydrates / of which is sugar	20,7 g / 19,0 g
Protein	5,3 g
Dietary fiber	1,5 g
Salt	0,0002 g
Vitamin C	28,8 mg (36 %*)

*From the suggested daily intake



FOREST FRUIT JUICE

4,90€



NUTRITIONAL CONTENT PER PORTION	159g
Energy	1244 kJ / 297 kcal
Fat / which is saturated	23,3 g / 13,1 g
Carbohydrates / of which is sugar	2,2 g / 2,2 g
Protein	18,9 g
Dietary fiber	0,8 g
Salt	1,54 g



Appendix 2.2. An example of the new price tags and nutritional information labels

MANGO ORANGE SMOOTHIE

4,90€





NUTRITIONAL CONTENT PER PORTION	226g
Energy	423 kJ / 101 kcal
Fat / which is saturated	0,4 g / <0,1 g
Carbohydrates /	20,0 g
of which is sugar	18,6 g
Protein	1,5 g
Dietary fiber	3,8 g
Salt	0 g
Vitamin C	71,6 mg (89 %*)

*From the suggested daily intake



HELSINKI MARKET

EAT WELL · EAT FRESH · EAT LOCAL

BLUEBERRY SMOOTHIE

4,90€

LACTOSE FREE

NUTRITIONAL CONTENT PER PORTION	251g
Energy	1030 kJ / 246 kcal
Fat / which is saturated	4,0 g / 2,3 g
Carbohydrates /	44,6 g
of which is sugar	42,2 g
Protein	5,4 g
Dietary fiber	2,1 g
Salt	0 g
Vitamin C	25,7 mg (32 %*)

*From the suggested daily intake



HELSINKI MARKET

EAT WELL · EAT FRESH · EAT LOCAL

Appendix 3. Allergens symbols explained

ALLERGENES



GLUTEN FREE

This product is gluten free, meaning it contains maximum of 20mg/kg of gluten.



FISH

The product contains fish.



The product is lactose free, meaning it contains less than 0,01g/100g lactose.



DAIRY FREE

The product contains no dairy at all.



100% VEGAN

The product is 100% vegan.



100% ORGANIC

The product is 100% organic.



SUGAR FREE

The product is sugar free.



EGG

The product contains egg.



PEANUTS

The product contains peanuts.



NUTS

The product contains nuts.



MUSTARD

The product contains mustard (seeds or plain).



ALLERGENES



GLUTEN FREE



GLUTEN FREE

This product is gluten free, meaning it contains maximum of 20mg/kg of gluten.



FISH

The product contains fish.



LACTOSE FREE

The product is lactose free, meaning it contains less than 0,01g/100g lactose.



DAIRY FREE

The product contains no dairy at all.



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The product is 100% vegan.



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SUGAR FREE

The product is sugar free.



EGG

The product contains egg.



PEANUTS

The product contains nuts.



NUTS

The product contains peanuts.



MUSTARD

The product contains mustard (seeds or plain).



Appendix 4. Training Material for the Head Chef of the commissioning company

HOW TO CREATE A NUTRITIONAL INFORMATION LABEL

1. Choose the product you want create nutritional label for (e.g caprese sandwich, rye ham and cheese bread)
2. Make five samples of the products so that you scale each ingredient individually (e.g how much you put salad into each sample product, how much tomato and so on..)
 - a. Mark all the weights on a piece of paper or straight into Excel
3. Once you have created the samples and have written all the weights of the ingredients in the products down, transfer these findings into Excel

HAM AND CHEESE	1	2	3	4	5		
							AVERAGE WEIGHTS
rye bread	72	69	71	72	64	=	70
mustard CC	20	18	14	17	17	=	17
salads (lollo+iceberg)	18	9	11	13	14	=	13
cheese	19	20	18	19	19	=	19
ham	41	40	37	36	41	=	39
cucumber	21	23	21	19	14	=	20
tomatoe	19	17	17	20	13	=	17
full bread	210	196	189	196	182	=	195

4. Calculate the average weight of each ingredient in order to standardize the weight of the ingredient in the product
5. Head over to www.fineli.fi and register to the service called Ruokapäiväkirja. This database will help you to give all the nutrients of the common ingredients from a readymade list. Insert your data ; the standardized weights and the names of the ingredients into Ruokapäiväkirja; in the same order as you have them listed in Excel.
 - a. if for some reason you cannot find the ingredient from the ingredients list in Ruokapäiväkirja, you can use another similar product
 - b. You can also add manually your own ingredients, but to save time use the readymade list

Ruokapäiväkirja

Anna taustatiedot suositusarvojen laskemiseksi

Anna vertailuryhmän tiedot

Omat elintarvikkeet

<

01.12.2019

>

Päivä

Viikko

energia, laskennallinen

proteiini

13924 kJ (3326 kcal)

133,3 g

<div>^</div> <div>sunnuntai 01.12.2019 (2428g)</div> <div></div>	<div>13924 kJ (3326 kcal)</div> <div>133,3 g</div>
<div>^</div> <div>HAM&CHEESE (159g)</div> <div></div>	<div>1133 kJ (271 kcal)</div> <div>15,6 g</div> <div>×</div>
Ruisleipä, reissumies, tosi tumma, oululainen, fazer 70 g	707 kJ (169 kcal) 7,7 g ×
Lehtisalaatti, ruukkusalaatti, lollo rosso 6,5 g	3 kJ (< 1 kcal) <0,1 g ×
Jääsalaatti 6,5 g	3 kJ (< 1 kcal) <0,1 g ×
Juusto, gouda, keskiarvo, rasvaa 28-30 % 19 g	298 kJ (71 kcal) 4,5 g ×
Kokolihaileikele, saunapalvikinkku, rasvaa 6 % 19 g	95 kJ (23 kcal) 3,1 g ×
Kurkku 20 g	9 kJ (2 kcal) 0,1 g ×
Tomaatti 17 g	16 kJ (4 kcal) <0,1 g ×

Lisää elintarvike:

Hae

6. Once you are happy with the results and have inserted everything that you need into your Ruokapäiväkirja, you can download the full nutritional information (salts, calories, sugars, carbohydrates etc.) as an Excel file

 Lataa tiedot

Ruokapäiväkirja

Anna taustatiedot suositusarvojen laskemiseksi

Anna vertailuryhmän tiedot

Omat elintarvikkeet

<div> <div><</div> <div>01.12.2019</div> <div>></div> </div> <div>Päivä Viikko</div>		energia, laskennallinen	proteiini
		13924 kJ (3326 kcal)	133,3 g
<div> <div>^</div> <div>sunnuntai 01.12.2019 (2428g)</div> <div></div> </div>		13924 kJ (3326 kcal)	133,3 g
<div> <div>^</div> <div>HAM&CHEESE (159g)</div> <div></div> </div>		1133 kJ (271 kcal)	15,6 g
<div> <div></div> <div>Ruisleipä, reissumies, tosi tumma, oululainen, fazer 70 g</div> <div></div> </div>		707 kJ (169 kcal)	7,7 g
<div> <div></div> <div>Lehtisalaatti, ruukkusalaatti, lollo rosso 6,5 g</div> <div></div> </div>		3 kJ (<1 kcal)	< 0,1 g
<div> <div></div> <div>Jääsalaatti 6,5 g</div> <div></div> </div>		3 kJ (<1 kcal)	< 0,1 g
<div> <div></div> <div>Juusto, gouda, keskiarvo, rasvaa 28-30 % 19 g</div> <div></div> </div>		298 kJ (71 kcal)	4,5 g
<div> <div></div> <div>Kokolihaileikkele, saunapalvikinkku, rasvaa 6 % 19 g</div> <div></div> </div>		95 kJ (23 kcal)	3,1 g
<div> <div></div> <div>Kurkku 20 g</div> <div></div> </div>		9 kJ (2 kcal)	0,1 g
<div> <div></div> <div>Tomaatti 17 g</div> <div></div> </div>		16 kJ (4 kcal)	< 0,1 g
<div> <div>Lisää elintarvike:</div> <div>Hae</div> <div></div> </div>			

7. Then, use the template of nutritional labeling for products in Helsinki market and edit it with your numbers so that nutritional information is right, and the price and symbols match according to the product you want to make it for.



8. Print the "new price tag", laminate it and put it out on display in the right place.

MITEN LUODA RAVINTOARVOSELOSTE TUOTTEILLE

1. Valitse tuote, jolle haluat tehdä ravintoarvoselosteen (esim. caprese leipä, kinkkujuustoreissari)
2. Tee viisi leipää niin, että punnitset kaikki raaka-aineet jotka tuotteeseen tulee; paljonko laitat salaattia, paljonko tomaattia yms.)
 - a. Merkkää painot paperille tai suoraan Exceliin muistiin
3. Kun olet tehnyt kaikki viisi tuotetta otantaa varten ja sinulla on painot kirjattuna ylös, siirrä nämä tiedot Exceliin

HAM AND CHEESE	1	2	3	4	5			
							AVERAGE WEIGHTS	
rye bread	72	69	71	72	64	=	70	
mustard CC	20	18	14	17	17	=	17	
salads (lollo+iceberg)	18	9	11	13	14	=	13	
cheese	19	20	18	19	19	=	19	
ham	41	40	37	36	41	=	39	
cucumber	21	23	21	19	14	=	20	
tomatoe	19	17	17	20	13	=	17	
full bread	210	196	189	196	182	=	195	

4. Laske jokaisen raaka-aineen keskiarvo, jotta voit luoda standardisoidun painon/määrän tuotteen sisällöistä
5. Mene osoitteeseen: www.fineli.fi ja rekisteröidy siellä palveluun nimeltä Ruokapäiväkirja. Tämä tietopankki sisältää valmiin listan yleisimmistä raaka-aineista ja tuotteista ja antaa niiden ravintoarvot kätevästi.

Ruokapäiväkirja

Anna taustatiedot suositusarvojen laskemiseksi

Anna vertailuryhmän tiedot

Omat elintarvikkeet

<div> <div><</div> <div>01.12.2019</div> <div>></div> </div> <div> <div>Päivä</div> <div>Viikko</div> </div>		energia, laskennallinen ▾	proteiini ▾
		13924 kJ (3326 kcal)	133,3 g
^	sunnuntai 01.12.2019 (2428g)	13924 kJ (3326 kcal)	133,3 g
^	HAM&CHEESE (159g) ☰	1133 kJ (271 kcal)	15,6 g ✕
	Ruisleipä, reissumies, tosi tumma, oululainen, fazer 70 g ☰	707 kJ (169 kcal)	7,7 g ✕
	Lehtisalaatti, ruukkusalaatti, lollo rosso 6,5 g ☰	3 kJ (< 1 kcal)	< 0,1 g ✕
	Jääsalaatti 6,5 g ☰	3 kJ (< 1 kcal)	< 0,1 g ✕
	Juusto, gouda, keskiarvo, rasvaa 28-30 % 19 g ☰	298 kJ (71 kcal)	4,5 g ✕
	Kokolihaileikele, saunapalvikinkku, rasvaa 6 % 19 g ☰	95 kJ (23 kcal)	3,1 g ✕
	Kurkku 20 g ☰	9 kJ (2 kcal)	0,1 g ✕
	Tomaatti 17 g ☰	16 kJ (4 kcal)	< 0,1 g ✕
Lisää elintarvikke:			
<input type="text" value="Hae"/>			

6. Etsi raaka-aine listasta jonka haluat lisätä ja käytä Exceliä hyväksesi raaka-aineen standardisoidun painon merkkäämiseen. Suosittelemme listaamaan raaka-aineet samassa järjestyksessä kun ne on sinulla Excelissä.
 - a. Jos jostain syystä et löydä raaka-ainetta listalta, lisää vastaava raaka-aine!
 - b. Raaka-aineita voi myös lisätä itse manuaalisesti, mutta ajansäästämiseksi vastaavakin käy.
7. Kun olet saanut kaikki tarvitsemasi tiedot siirrettyä Ruokapäiväkirjaan, voit ladata Excel tiedoston joka näyttää kaikki ravintoarvot omista tuotteistasi sekä raaka-aineista (suola,sokeri,hiilihydraatit,rasva yms.)

Ruokapäiväkirja

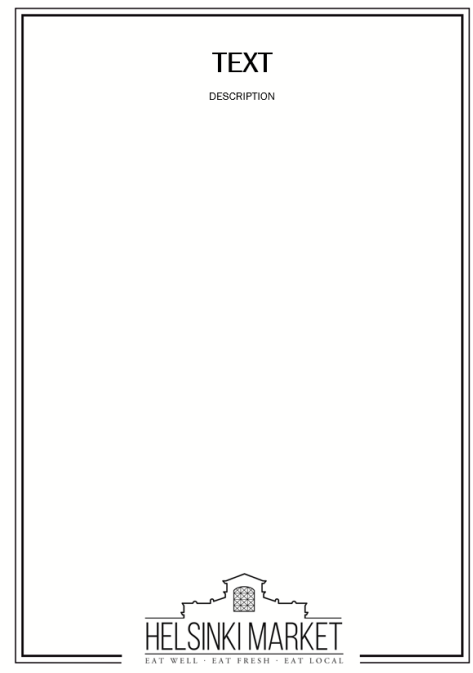
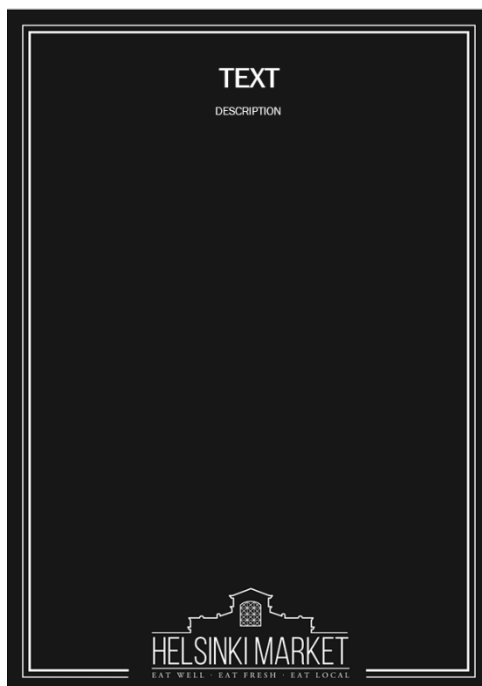
Anna taustatiedot suositusarvojen laskemiseksi

Anna vertailuryhmän tiedot

Omat elintarvikkeet

<div> <div><</div> <div>01.12.2019</div> <div>></div> </div> <div> <div>Päivä</div> <div>Viikko</div> </div>		energia, laskennallinen	proteiini
		13924 kJ (3326 kcal)	133,3 g
^	sunnuntai 01.12.2019 (2428g)	13924 kJ (3326 kcal)	133,3 g
^	HAM&CHEESE (159g)	1133 kJ (271 kcal)	15,6 g
	Ruisleipä, reissumies, tosi tumma, oululainen, fazer 70 g	707 kJ (169 kcal)	7,7 g
	Lehtisalaatti, ruukkusalaatti, lollo rosso 6,5 g	3 kJ (< 1 kcal)	< 0,1 g
	Jääsalaatti 6,5 g	3 kJ (< 1 kcal)	< 0,1 g
	Juusto, gouda, keskiarvo, rasvaa 28-30 % 19 g	298 kJ (71 kcal)	4,5 g
	Kokolihaileikkele, saunapalvikinkku, rasvaa 6 % 19 g	95 kJ (23 kcal)	3,1 g
	Kurkku 20 g	9 kJ (2 kcal)	0,1 g
	Tomaatti 17 g	16 kJ (4 kcal)	< 0,1 g
Lisää elintarvike:			
<input type="text" value="Hae"/>			

8. Tämän jälkeen käytä luonnosta ravintoarvoselosteesta Helsinki Marketia varten ja muokkaa se niin, että ravintoarvotaulukossa on tuotteesi luvut, hinta on oikea ja allergeenisymbolit täsmäävät tuotettasi



9. Tulosta niin sanottu uusi hintakyltti, laminoi se ja laita se oikealle paikalleen esille.