

Laura Suorsa

**Developing Food Product Packaging** 

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Laura Suorsa
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#### **ABSTRACT**

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In this thesis, the functions and elements of food packaging are investigated and how they can influence the consumer's experience with the product. With the fierce competition in the food industry, packaging has become very important to communicate the company's values and entice customers to choose the product. Successful packaging design enhances the product's attractiveness, and trust in the company is created through usability. The research question of this thesis is to understand what makes a good food product packaging.

The thesis research was carried out as a case study, which studied how the potential users find the current case food product packaging. The study is quantitative, to which answers were gathered using a questionnaire. Responses were gathered in December 2023 at a Christmas market highlighting local products, organized in the Oulu region. The questionnaire was carried out in a place where customers could physically touch and see the product. This was an important criterion for implementing the study, which aimed to research, in addition to the visual element road, the customers' experience of its other features. A total of 29 customers answered the survey.

By analyzing the answers, it is possible to notice elements of the case packaging, which can be made more attractive and meet customer satisfaction by developing the case packaging. The thesis includes a comprehensive literature review of the concepts of practical properties and visual elements of food product packaging, which were used in preparing the questionnaire. In addition, the literature review investigated how the design process of food product packaging gets started.

The research results suggest that customers prefer packaging that is easy to understand and communicates visually the content of the product. In addition, the research highlights the growing importance of practical and environmentally friendly packaging design today. In conclusion, the study offers concrete ideas on how the case product package could be developed.

Keywords: Developing packaging, Packaging design, Food product packaging, Packaging elements, Packaging functions

# TIIVISTELMÄ

Oulun ammattikorkeakoulu Degree Programme in International Business

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Tässä opinnäytetyössä tutkitaan ruokatuotepakkauksien ominaisuuksia sekä elementtejä ja kuinka niillä voidaan vaikuttaa kuluttajan kokemukseen tuotteesta. Ruoka-alan kovan kilpailun myötä pakkaukset ovat nousseet suureen merkitykseen viestimään yrityksen arvoista ja houkuttelemaan asiakkaat valitsemaan kyseinen tuote. Onnistuneen pakkaussuunnittelun myötä voidaan tehostaa tuotteen houkuttelevuutta ja käytettävyyden myötä syntyvää luottamusta yritystä kohtaan. Tämän opinnäytetyön tutkimuskysymyksenä on ymmärtää, mistä koostuu hyvä ruokatuotepakkaus.

Opinnäytetyön tutkimus toteutettiin tapaustutkimuksena, jolla pyrittiin selvittämään potentiaalisten asiakkaiden tyytyväisyyttä tutkimuksessa käytetystä ruokapakkauksesta. Tutkimus on kvantitatiivinen tutkimus, johon kerättiin vastauksia kyselylomakkeella. Vastauksia kerättiin joulukuussa 2023 Oulun seudulla järjestetyssä lähituotteisiin keskittyneessä joulumyyjäisessä. Kysely toteutettiin paikassa, jossa asiakkaat pääsivät näkemään ja koskettamaan tuotetta fyysisesti. Tämä oli tärkeä kriteeri tutkimuksen toteutukselle, jossa haluttiin selvittää visuaalisten elementtien lisäksi asiakkaiden kokemusta sen muista ominaisuuksista. Kyselyyn vastasi yhteensä 29 asiakasta.

Vastauksia analysoimalla voidaan huomata pakkaukseen liittyviä osa-alueita, joita kehittämällä kyseistä pakkauksesta voidaan saada entistä houkuttelevampi ja vastaamaan asiakkaiden odotuksia. Opinnäytetyö sisältää kattavan kirjallisuuskatsauksen ruokatuotepakkausten käytännöllisten ja visuaalisten ominaisuuksien käsitteistä, joita hyödynnettiin kyselytutkimuksen laatimisessa. Lisäksi kirjallisuuskatsaus tutki, miten ruokatuotepakkauksen suunnitteluprosessi lähtee liikkeelle.

Tutkimustulokset viittaavat siihen, että asiakkaiden mieltymyksiä ovat helposti ymmärrettävä ja tuotetta visuaalisesti viestivä pakkaus. Lisäksi tutkimus nostaa käytännöllisen ja ympäristöystävällisen pakkaussuunnittelun kasvavaa merkitystä nyky-yhteiskunnassa. Lopputulemana työ tarjoaa konkreettisia ehdotuksia, miten tapauspakkausta voidaan kehittää.

Avainsanat: Pakkauksen kehittäminen, Pakkaussuunnittelu, Ruokatuotepakkaus, Pakkauselementit. Pakkauksen funktiot

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#### 1 INTRODUCTION

In today's wide array of available food products, packaging plays an increasingly vital role in capturing consumers' attention in the market environment. Combining functionality, recyclability, and visual appeal, packaging creates a complete experience for end-users of food products. While the primary function of food packaging is to preserve freshness, prevent spoiling, and enable transportation and logistics, its potential as a promotional tool should not be underestimated. Packaging serves as the first point of communication between a company and its consumers, making it crucial in attracting buyers' attention. Investing in high-quality packaging design can significantly benefit companies, enticing consumers to desire their products. Moreover, attractive product packaging plays a vital role in marketing strategies, helping brands stand out amidst competition. (Poturak 2014,144.)

Furthermore, research showcases that around 70 percent of purchase decisions are made at the point of sale, which indicates the packages' commercial power. Packaging has several vital functions around sheltering the product's intention. (Holmes & Paswan 2012, 109.)

The purpose of this thesis is to investigate the key packaging elements that contribute to effective food product packaging, as well as the various perspectives that must be considered during the packaging design process. The aim is to understand how different elements create trust and desire to buy the product among consumers and how entrepreneurs in the food sector can benefit from the packaging design.

The thesis is commission work for the Oulu Culture Foundation, which is responsible for the Oulu2026 – European Capital of Culture project. Additionally, it is conducted for the Arctic Food Lab, a prominent cultural program in Oulu2026 aimed at promoting awareness of local food culture and fostering collaboration among food entrepreneurs in the Oulu2026 region. The Arctic Food Lab operates as a registered trademark, with approximately 80 food entrepreneurs, including producers, cafeterias, hotels, and restaurants, utilizing the brand. These entities are required to incorporate local ingredients in their products or produce them locally within the Oulu2026 area. (Oulu2026, 2024.) For the study, one company from the Arctic Food Lab network, Yrttiatta's food product, has been selected to conduct research. The objective of this thesis is to find out what characteristics

and functions potential users appreciate in the case product, and how product packaging could be developed.

To achieve this, specific research questions have been formulated:

- Q1. What makes a good food product packaging?
- Q2. How do potential consumers find the current packaging of the case food product?

The thesis begins with a literature review, which examines the theoretical background of food packaging and how to initiate the design process for food product packaging. Following this review is the research stage, which outlines the research methodology and data collection methods, and provides empirical insights. This data aims to reveal the ideal packaging for the chosen product, as perceived by potential users which is analyzed in the conclusion stage. Lastly, this thesis provides concrete recommendations on how the case product packaging could be developed and a discussion of the entire research process.

#### 2 FOOD PACKAGING

Elements like language, texture, color, and graphics play a significant role, in communicating products' nature and differentiating them from competitors. User convenience is another crucial aspect, exemplified by packaging that is designed for easy handling, opening, use, and resealing, thereby adding value for end-consumers. Nowadays, consumers are also more interested in environmental aspects which have an impact on packaging decisions. Recyclability, reusability, and material choices therefore have important roles in packaging design as well. These aspects altogether make packaging a complex part of products. (Dovaliene, Kuvykaite & Navickiene 2009, 441.) The upcoming literature review will concentrate on food packaging, aiming to provide a clearer understanding of how its elements and functions are connected to the product.

# 2.1 Food Package Functions

Packaging has many roles for food products since almost all food products must be packed in some way. The packaging must support the optimal usability of the product, so that usage is as easy as possible for the consumer. Packages can be divided into so-called primary, secondary, and tertiary packages. Primary packaging is the packaging that is in the closest touch on the product. It can be portion packaging, unit packaging, or consumer packaging. Secondary packaging tight together the primary packages and can be also called distribution packages or retail packages. Tertiary packaging refers to the packaging which includes several secondary packages and is also called transit packages. (Järvi-Kääriäinen & Ollila 2007, 10.) This thesis focuses on primary packages, which the following chapter discusses by introducing the basic functions of food packaging.

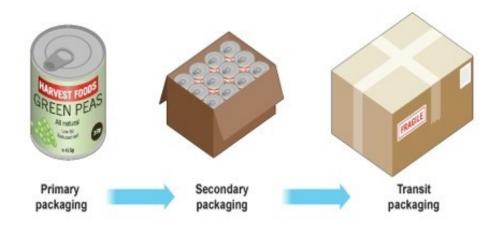


Figure 1. Types of packaging. (Ucanpack 2021.)

#### Protection and Preservation

One of the primary functions of packaging is to protect the product from physical, chemical, and biological burdens. Products must be packed into materials that suit them and protect them from environmental factors. Microorganisms, dusts, shocks, with other outside effects can destroy the products and therefore packaging should be carefully designed to protect the product from unexpected causes that might make it unusable. Especially, food products must be protected from the chemical effects caused by light and oxygen. (Lehtinen 2021, 14.) Unsuitable material can also affect dangerous microbial combinations in the products that destroy it. Packaging should also protect the product in every stage where it is handled from the manufacturing to the hands of the end user. According to Emblem and Emblem (2012, 26), warehousing and distribution are the stages where most of the damage happens to the product. Furthermore, packaging has also an important role in reducing food waste when it is packed properly, helping to protect the product to be usable as well and as long as possible.

Protection is also connected to the safe use of the product. From the packaging, it can be seen whether the product has been opened or damaged. The packaging can also be used to verify whether the product is genuine. (Lehtinen 2021, 14.)

#### Packaging Lines and Logistics

Groceries and products that are packaged in huge volumes are usually packaged with big and efficient product lines. In these cases, product packaging has also specific requirements to mitigate waste and production cuts. The shape of packaging also plays an important role, so the products

move smoothly along the production line. Additionally, packaging must be able to withstand heat so that it can be sealed tightly. (Järvi-Kääriäinen and Leppänen-Turkula 2002, 16.)

#### Convenience

Convenience in packaging refers to how easy it is for consumers to use. This includes how it's opened, used, resealed, or disposed of, all of which contribute to the overall practical experience of the packaging. Well-designed packaging is easy, safe, and clean to use. Robertson (2009,3) emphasizes how food packaging should also be suited for its intended purpose, such as pouring. These functions can provide consumer loyalty and satisfaction by providing convenience. Elder individuals may have difficulties opening complex packages that require dexterity. Therefore, it is important to consider ease of opening and use when designing packages. (Järvi-Kääriäinen and Leppänen-Turkula 2002, 17.)

#### Communication

Packaging plays a crucial role in delivering information about the product. This information should be easy to read and understand by the potential consumer. The packaging includes information such as instructions on how to use the product, weight, and volume depending on what kind of product it concerns. Additionally, packaging may contain secondary information such as product codes and barcodes. Moreover, the graphics on the packaging are elements that attract consumers' attention, making itself a marketing tool for reaching potential consumers. These elements and food product labeling requirements will be examined in more detail in the upcoming chapters. (Emblem & Emblem 2012, 47; Robertson 2009, 3.)

# 2.2 Elements of Food Packaging

This subchapter discusses the various elements that food packaging typically comprises and their impact on food product packaging.

### 2.2.1 Material and Recycling

The selection of materials for food products must be carefully considered, particularly regarding their suitability for direct contact with the product and their ability to protect it from the environment. It is essential to choose impermeable materials and allow for tight sealing, thus preventing leakage

into the environment. By selecting the right material, food waste can be reduced as the product remains fresh in its packaging for as long as possible. (Lehtinen 2021, 44, 297.)

However, material is also something that lasts for the consumer with the primary product itself. In material selection suitability is a key aspect, but consumers also value recyclability and reusability when evaluating packaging. Mono-material packages are the easiest and best choice from the perspective of recycling, although it may be challenging to create packages from a single material. Therefore, efforts should be made to minimize the selection of different materials. (Design Company 2024a.)

Choosing the right material for the product not only benefits the environment but also allows food producers to save materials and streamline production processes. As discussed earlier, consumers perceive packaging multi-sensorially. Therefore, how the packaging feels in the hand can significantly influence consumer perceptions, whether it feels luxurious or practical (Rundh 2016, 2492). Typical materials used for food product packaging include glass, plastic, paper and cardboard, metal cans, and other biodegradable and hybrid materials (Industrial Packaging 2021).

Recycling plays an important role in today's world, and especially consumers have been given a lot of responsibility in terms of a sustainable lifestyle and recycling. However, in her book, Lehtinen (2021, 311-317) criticizes the discussion around food packaging, arguing it often mispresents the environmental impact. The environmental impact caused by food packaging is relatively minor compared to the problem around food waste. The root of food packages ending in the sea and nature is a problem where some consumers do not dispose of the packaging properly and discard it into nature rather than proper waste management systems. The environmental impact of packaging must be examined throughout its entire life cycle, from the point of view of material procurement, manufacturing, service life, product protection, and reusability. In addition to this, it should be considered where the package was manufactured.

However, enlightened customers are looking for packaging that is not made of non-renewable raw materials, such as plastic. Along with the method of comparing the environmental effects of packaging, which still seems quite complicated, it must be remembered that customers must not be misinformed about the ecological nature of the packaging. Additionally, the packaging recycling instructions must be clear from the customer's point of view. For instance, material code alone might not be familiar to the consumer and can confuse how it should be recycled. Therefore, it is

crucial to pay attention to recycling labeling in packaging design. Verbal explanation of the material and its recycling instructions might benefit the sales of the product meanwhile the appreciation of recyclable materials is increasing among the consumers. (Design Company 2022b.)



Figure 2. Example of different plastic codes. (K-ruoka 2024.)

# 2.2.2 Size and Shape

The packaging size should relatively refer to the product size to not mislead the consumer. On the other hand, packaging should also have enough space for all the required information, which also has an impact on the size of the packaging. (Emblem & Emblem 2012, 91.) Too big or difficult-shaped packages are challenging to store at home for consumers which might cause the consumers must unpack the product at home. The size of the package may also depend on what kind of household it is designed for and how much it will be used. Commercial kitchens are looking for big packages while the one-person economy favors small packages. For instance, in Finland, households are constantly getting smaller, which means the demand for small packages is growing all the time. (Järvi-Kääriäinen and Leppänen-Turkula 2002, 17; Lehtinen 2021, 298.)

The shape of the packaging is not only important for catching consumers' attention but also plays a role in transporting the product. Additionally, it significantly influences the usability of food products. For instance, liquid food products need a suitable shape for pouring, ensuring ease and efficiency for customers. Moreover, the size and shape affect where the product will be displayed on the market shelf. (Rundh 2016, 2496.)

#### **2.2.3** Colors

According to Grip (2013, 96-99), color is an emotional feature, with different colors evoking various notions. Colors resonate quickly and deeply with consumers, playing a powerful role in packaging design. For example, green often symbolizes health, while yellow suggests excitement. Utilizing different colors can evoke specific emotions in the target consumers, enhancing the communication message of the product. Additionally, Rundh (2016, 2496) notes that besides emotional associations, colors carry different cultural meanings, which must be considered in the product's marketing context. It's important to note that colors are often used to describe the ingredients product, and using unfamiliar colors can confuse consumers about the product inside. A well-known example is ketchup, commonly packaged in red. (Järvi-Kääriäinen and Leppänen-Turkula 2002, 17.)

Colors stimulate various human senses and emotional connections, and their selection depends on the environment, target audience, and cultural context. For instance, in Finland, milk cartons are traditionally associated with specific colors, while in other countries, color usage may differ significantly. On the other hand, choosing distinct colors from competitors can be a strategic decision.



Figure 3. With different color concepts, different feelings can be created. (Buether 2014,43.)

Colors can also be used to create different product families in food products, which help consumers learn to recognize different products from one brand or company (Buether 2014,43; Lehtinen 2021, 358-359).

#### 2.2.4 Background Image, Graphics, and Font Style

Background images and photography can effectively convey what a product is and how it can be used. Photography has the power to evoke emotions in customers, thereby creating an emotional connection to the product. However, it's important to note that photography can also have negative effects on consumers if not executed properly. (Grip 2013, 110.)

Font styles, like other graphic elements and color, also significantly impact the visual appearance of the packaging and reflect the writing pattern on the packaging. Ashaduzzaman and Mahbub (2016, 24) argue that successful companies employ best practices in font styles, which can influence consumer buying decisions. Innovative and attractive font styles can enhance consumer attraction to the product. Some research suggests that font style compatibility with the product image increases the likelihood of product selection. Different graphic elements work together with a combination of color, typography, shape, and printed material to effectively communicate the product's message to consumers.

# 2.2.5 Weight

As discussed before, packaging convenience has a role in customer loyalty. Weight and size go in hand in that manner, that very big packages are very heavy to use. The maximum size for instance in drink products is 2 liters in Finland to avoid too heavy packages. Furthermore, elder people might have difficulties handling heavier products if their hand strength is not so strong anymore. (Järvi-Kääriäinen & Leppänen-Turkula 2002, 18.)

# 2.2.6 Packaging as Marketing Method

All the factors mentioned above contribute to shaping the image of the product for customers and influence their decision to make a purchase. If the created image resonates with customers and meets their expectations of the product inside the package, it can guide their buying decision.

The phrase "packaging is a silent salesman" is commonly cited in articles, research, and books about packaging design. According to Hundekar et al. (2009, 44-50), the product is the most visible

and crucial component of the marketing mix. Traditionally, the marketing mix consists of four elements: product, price, place, and promotion, with packaging being a significant part of the product component. Therefore, packaging plays a vital role in the overall product marketing strategy.

Packaging often serves as the initial point of communication with consumers, conveying the company's values and story. This requires a thoughtful blend of colors, graphics, shapes, and sizes that either offer something new and distinctive or evoke a sense of familiarity that resonates with consumers. (Ensemble & Ensemble 2012, 87-92.) Customer-oriented packaging marketing conveys easily to the customer an idea of whether the product is suitable for him or not. However, all consumers are different, so it is impossible to implement pleasant packaging for all. Consumer research helps to understand whether the customer values aesthetics, and practicality in the packaging or for example, whether the packaging's recyclability or product information plays a greater role. (Lehtinen 2021, 369.)

#### 2.3 Printed Information

Packages have a lot of printed information. There can vary from the storytelling of the company to attractive advertising slogans to attract consumers' attention. Technology has brought new opportunities to use mobile devices in the food industry. For instance, QR codes (Quick Response) can be utilized in product packages to provide product information and for marketing purposes. QR-code can be scanned with a terminal device which leads to a site where further information is provided. In product packaging, the QR code is usually presented with suggestive illustrations to give a hint of what the QR code is. These can have added value in product use and storytelling. (Paakkanen 2013, 14-15.)

Besides marketing texts and other alternative texts, there are multiple labeling information that are required by the countries of the product market (Rundh 2016, 2497). The following sub-chapter discusses more of these elements required for food products made and sold in Finland.

#### 2.3.1 Required Food Packaging Labelling

The Finnish Food Authority is the administrative body that controls and monitors the matters related to food products and food safety in Finland. There are multiple requirements the Finnish Food

Authority demands to ensure safety and mitigate misleading product information from the perspective of consumers. All these regulations are in line with the regulations set by the EU, which has set legislation to consider for all food products sold in the EU countries. (Ruokavirasto 2023a.) The majority of the market's food products are prepacked, and the following requirements are mandatory for all these packed products. As a concept, prepackaged food products refer to food products that have packaging and are meant to be given and sold as such, without opening the packaging at the time of sale. All prepacked food products must include labeling, which is clear to understand, recognize and read from the product. Arguments for instance the health effects, are forbidden in the product labeling. The following list is mandatory information that every food labeling should include. (European Union 2023.) The list is set by the EU's regulation on food information:

- name of the food
- ingredient list
- allergen information
- quantity of certain ingredients
- date marking (best before / use by)
- country of origin
- name and address of the food business operator established in the EU or imported
- net quantity
- any special storage conditions and/or conditions of use
- instructions for use if needed
- alcohol level of beverages (if more than 1.2%)
- nutrition declaration

The language requirements vary in different countries. In Finland, the prepacked food product labels should be in bilingual municipalities in Finnish and Swedish. However, in monolingual municipalities, labels should be at least in the language of the municipality. Besides this, the font size must be at least 1,2 millimeters, and in the small packages at least 0,9 millimeters to ensure the readability of the text. (Ruokavirasto 2023a.)

In conclusion, the European Union and the Finnish Food Authority's requirements for food product labeling are made in purpose to prevent companies from creating misleading labeling on food products. The information presented on labeling must be appropriate, clearly written, and in a way the essential information won't disappear easily. Some specific food products might require further special legislation which can be found on the Finnish Food Authority webpage. (Ruokavirasto 2023a.)

# 2.3.2 Voluntary Food Packaging Labelling

Besides required packaging labeling there are different voluntary labeling that can be used to talk more about the food product's origin, sustainability, or quality. These labels are prepared to make consumers' choices and evaluation of the product easier. This labeling might have also a positive impact on the image of the company since the labeling raises trust among the consumers. The companies that are using this labeling are monitored and examined regularly. (Kuluttajaliitto 2023.) The table below introduces the most used voluntary food packaging labels in Finland.

TABLE 1. Different voluntary food packaging labels.



The Hyvää Suomesta (the Produce of Finland) is a label for packaged food products from Finland. It's an easy and fast way for consumers to notice that the product is made from Finnish ingredients and manufactured and packaged in Finland. Food companies that are using the label are audited every three to four years to verify they are using only local ingredients. It has been announced that this label is the most respected mark of origin in Finland. People are overall more conscious of where the food has been produced and respect towards Finnish food is increasing. Companies using this label can benefit from using it. (Ruokatieto 2023.)



The Avainlippu (the Key Flag Symbol) can be granted for a product that is produced in Finland or a service located in Finland. The domestic degree of the product or product group must be at least 50 percent. The main idea of this label is to tell that the product or service is made in Finland and supports Finnish work. The Avainlippu can be announced for three years at a time and the access information is asked every year to keep the label. (Suomalainen työ 2024.)



The Sirkkalehtilippu (the Cotyledon Symbol) is a label for Finnish vegetables, plants, and horticultural products. Products with vegetal ingredients that are 100% farmed in Finland can have the label.

(Kauppapuutarhaliitto 2024.)



The EU's organic label is mandatory for organic prepacked food products that are made in the EU. To use this label there is no need to apply permission, but the company must be under organic control. Prepackaged food products coming from outside the EU, the use of this label is voluntary. Food products with less than 95% organic ingredients cannot use the label. (Ruokavirasto 2023b.)



The Sydanmerkki (the Heart Symbol) is a registered label in the EU for food products that are healthier choices in their respective food categories. These products typically contain less salt and sugar, and their fats are of good quality. To use this label, permission must be obtained for products that meet the criteria of their specific product category. This permission is granted by an impartial expert group. There are over 50 different product groups, each with its own criteria based on the nature of the food product. Using the label is voluntary. (Sydanmerkki 2024.)

# 2.4 Packaging Design Process

According to Rundh (2016, 2498), packaging design solutions should be consumer-oriented to create value for consumers. Understanding which kind of value certain packaging can bring helps to create eye-catching packaging designs for the target consumers. The emerging competition applies pressure on companies to introduce creative and tempting packaging solutions. Before product design work there are lot of background information that should be gathered to understand the market, consumers, and end-users to create as suitable packaging for the product as possible.

It is important to recognize which consumer needs the product fulfills and for whom it is designed. This helps to create a package that supports this certain purpose. However, there can be several different reasons to design new packaging for the product. These reasons can be environmental, reduce packaging costs, support the business strategy, and new design for safety. (Design Company 2024c.)

Defining product categories is particularly important to understand which type of purchasing decisions the certain product involves. This means product packaging has its role in whether the product is for instance so-called premium product or a product that is sold as mass consumer goods. Emblem and Emblem (2012, 89-90) claim that fast identification of the product and brands is one of the most important attributes of the packaging.

In packaging design, it might be beneficial to highlight the company's or brand's values. Consumers form emotional bonds within companies and evaluate the trust via product packaging. Different adjectives are tightly tied to brand values and these values can be utilized in the packaging design. The nature of the market the product falls in might have an impact on the packaging design. For instance, seasonal products have specific packaging designs. Following trends and how the markets are developing are part of creating attractive packaging that responds to the demands. (Lehtinen 2021, 34-36.)

As discussed earlier, packaging has a critical role in communicating the product and the consumer within the target audience. The packaging design process requires understanding the target audience and their motives by identifying their wants, needs, and desires. A wrongly identified target audience might lead to targeting significantly the wrong kind of consumers. Analyzing the target audience can be done by studying published reports and surveys or by conducting field research by the companies. Research helps to compose consumer profiles which help to understand their lifestyle. (Lehtinen 2021, 24-25.)

There are several models to evaluate packaging elements as it has a promotional role as an important part of the product strategy. Albaum, Duerr, and Josiassen (2016, 441-446) suggest the VIEW model to evaluate if the packaging stands out from its competitors. The model assists businesses in testing the packaging by identifying variables that stand for:

"V – Visibility: the package must be easily distinguished from the visual competition." Packaging also enables promote the product at the point of sale and differentiates it from its competitors. Features like graphic elements, font style, and colors capture consumers' attention.

"I – Information: the package must quickly communicate the nature of its contents." Information also refers to product information as well the instructions on how to use the product. Informative packaging can satisfy consumers and boost the purchasing decision.

"E – Emotional impact: the design must create favorable impressions in the mind of the consumer." Packaging might support emotions and moods. Creating content that highlights emotions over competitors might foster consumer intention.

"W – Workability: the package must function as protection and must also be efficient for in-home use." Solutions that help the home use and are as convenient as possible for consumers create value from retailers' and consumers' sides. (Albaum, Duerr, and Josiassen 2016, 441-446; Firmansyah & Fatihudin 2019.)

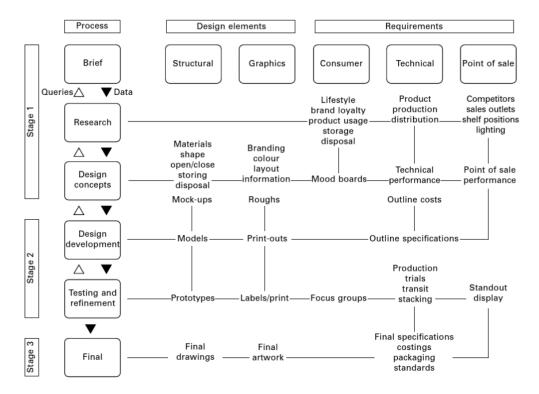


Figure 4. The packaging design process. (Emblem and Emblem 2012, 413)

#### 3 RESEARCH METHODOLOGY

This chapter outlines how the research of this thesis was conducted and how and why the research method was chosen. The data collection chapter has a deeper look at where the research was conducted, and what was the reasons behind it. The research methodology was formulated by the nature of the research questions and the literature background.

#### 3.1 Quantitative Research

The thesis adopts a quantitative approach, utilizing a questionnaire survey as the primary method for data collection. Quantitative research encompasses inferential, experimental, and simulation methods. The inferential approach typically involves gathering large datasets with uniform characteristics and standardized variables, often through surveys or observations. These characteristics are then used to draw inferences. Quantitative analysis involves a numerical examination of data, often using percentages and monetary terms. Variables are assessed for their relationship over time, employing tools such as arithmetic mean and standard deviation to derive consistent conclusions. However, both qualitative and quantitative methods contribute to extrapolating generalizations and trends from research findings. Surveys allow for direct data collection from populations or samples at specific points in time, utilizing methods such as interviews, observations, or questionnaires. The collected data must be carefully and logically analyzed. (Krishnaswami & Satayprasad 2010, 6-7, 15.)

In this study, questionnaires were used to gather data, specifically utilizing Likert scale questions to facilitate respondents' ease of answering. The Likert scale uses ordered-category statements aimed at gauging satisfaction, attitudes, and perceptions. Each statement includes a scale where respondents select category labels indicating their level of agreement or disagreement, typically ranging from "totally disagree" to "totally agree". (Dimitrov 2011, 8-9.) The questionnaire of this study has a Likert scale consisting of five labels: 1 for "totally disagree," 2 for "disagree," 3 for "neutral," 4 for "agree," and 5 for "totally agree."

Likert scale questions further enable the calculation of percentages and mean for specific answers, providing insight into the alignment of case product packaging with potential buyer's preferences

and identifying areas for improvement. Careful design of questionnaires is crucial to ensuring they effectively address research questions and attract a sufficient response rate. Close-ended and multiple-choice questions are often preferred for their ease and speed of response compared to openended questions. A well-designed questionnaire should take only a few minutes for respondents to complete. Questionnaires can be distributed via various means, including email, post, online platforms, or face-to-face interactions. Unlike interviews, questionnaires do not involve direct interaction with the researcher and aim to gather information, attitudes, beliefs, behaviors, and experiences across different environments and situations. Additionally, questionnaires offer the advantage of being untethered to specific locations and facilitate the gathering of findings that can be generalized. (Rowley 2014, 308-321.)

#### 3.2 Data Collection

The questionnaire was conducted on 14<sup>th</sup> December 2023 from 2 pm to 5 pm, and on December 16<sup>th</sup>, 2023, from 3 pm to 6 pm in the Christmas market in Zeppelin, which is a shopping mall in Kempele, close to Oulu City. The place was chosen to gain the answers to as truthful a target audience as possible. The Christmas market features various vendors whose products are handmade in the Oulu region, which is why the event will presumably attract the target audience of the case product. The questionnaire was also conducted in a place where people were met face-to-face because the respondents needed to see the product physically and to have the opportunity to touch it. Therefore, the questionnaire could not be revived, for example, by sending it by e-mail.

The research material was gathered using Webropol, an online survey and reporting platform commonly used for academic and business surveys because it allows for the creation of comprehensive analyses (Webropol 2024). The guestionnaire used in the study can be found in the appendices.

During the Christmas market, there were fewer visitors than expected, which was surprising according to the event organizers. The author of this thesis conducted the questionnaire at the Arctic Food Lab market booth approaching people who visited the booth and asking if they would like to participate in the survey. Caused of the low number of visitors amount, only 29 responses were collected during the time. Respondents were assured that their responses would remain anonymous and were being collected for a thesis.

Almost everyone who visited the Arctic Food Lab market booth agreed to participate, with only one person declining, resulting in a response rate of 96.66%. Respondents were provided with the option to answer the questionnaire using a provided pad, a QR code to respond on their device or a printed questionnaire. Twenty-three respondents used the pad, four used the QR code, and two answered on the paper. The author later added these two paper responses to the Webropol for analysis. The questionnaire was conducted in Finnish.

# 4 RESULTS

To conduct the research, Yrttiaitta's spruce sprout drink was selected. This drink is handmade from ingredients gathered by the entrepreneur in li, a municipality near Oulu. The product is currently sold directly to consumers from the entrepreneur's home in li, and the entrepreneur also actively promotes and sells the product at various events. While the products are not yet available in retail stores, this may be a future goal.

The product packaging is made of glass with a metal cap. The bottle stands 19 centimeters tall, with a bottom diameter of 6.5 centimeters, and it contains 500 milliliters of the drink. All of Yrttiaitta's products feature a similar type of labeling, with only the product name and description changing.







Figure 7. Photos of the case product's front, back, and side.

# 4.1 Respondents Background Information

The questionnaire started with two questions aiming to gather general information about the respondents. Age and gender were asked in purpose to investigate whether these characteristics

cause differences in the answers on the questionnaire, and to identify the primary target audience. The age groups were divided into various groups.

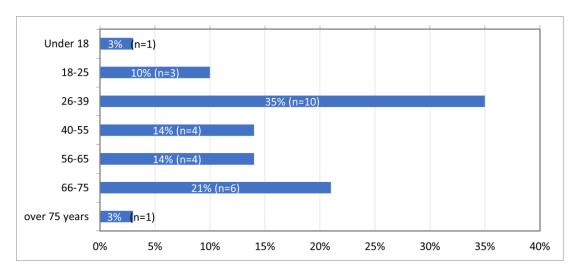


Figure 5. Age

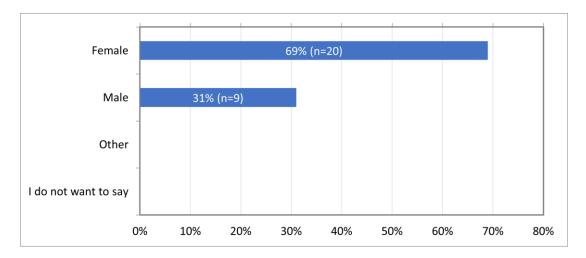


Figure 6. Gender

The majority of respondents, comprising 35%, fell within the age range of 26-39 years old, while 21% were aged between 66-75 years. Those aged 18-25 accounted for 10% of the respondents and 14% from both age groups of 40-55 and 56-65. Individuals under 18 and over 73 years old constituted the minority, each representing only 3% of the total respondents (1 person in each age group).

In terms of gender distribution, the questionnaire saw a predominance of female respondents, comprising 69% of the total, while male respondents accounted for 31%.

# 4.2 First Impression of Packaging

The first question considering the product packaging was "What first caught your attention in the packaging?" There were six different elements to choose from the answers, which are based on the theoretical background and observations of the packaging itself. The theoretical background emphasized that 70% of the purchasing decisions are made at the point of sales which led to the author wanting to find out where consumers' attention draws attention first. Moreover, the design of the first question intended to provide respondents understanding of specific areas that the following questions would address.

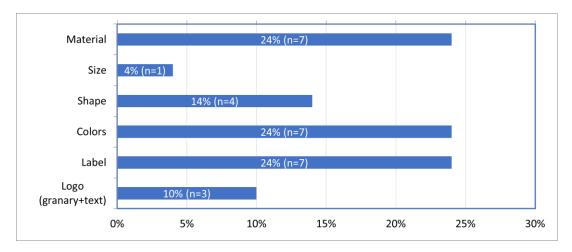


Figure 7. The first impression of the packaging

The material, colors, and label were the three most answered options which all had 24% of the answers. Shape got 14% of the answers while logo got 10%. Only 4% of respondents answered size. The answers were evenly distributed between the different age groups and there weren't any specific preferences in particular age groups. Furthermore, preferences didn't change between genders. The slight difference was only in the label option, which got 14% more answers from male respondents than females.

#### 4.3 Written and Graphic Information on Packaging

The questionnaire continued with questions considering the written and graphic information on the packaging. These questions aim to find out if the written and graphic information easily communicate what the packaging consists of.

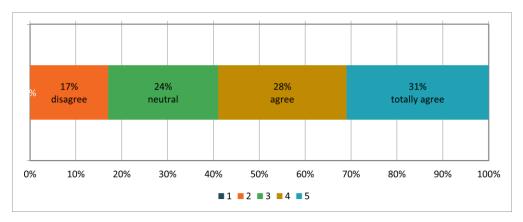


Figure 8. The packaging easily communicates which product is in guestion.

31% of respondents indicated they "totally agree" with the alleged "Packaging communicates easily which product is in question", followed by option "agree" with 28% responding. 24% responded "neutral", while 17% "disagree" with the argument.

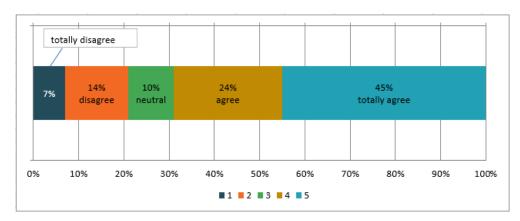


Figure 9. The packaging is easy to read.

"Packaging is easy to read" was another question considering the communication of the packaging. 45% of respondents "fully agree" with the argument followed by 24% who responded "agree" with it. 10% had a "neutral" opinion while 14% "disagreed". 7% answered they "totally disagree" with the argument.

Respondents, aged over 75 years gave a "neutral" answer to the argument. In the age groups of 40-55 and 56-65, 25% of respondents indicated that they "totally disagree" with the argument. Conversely, younger age groups were more inclined to agree rather than disagree with this argument. Interestingly, data also revealed that 20% of respondents in the age group of 26-39 "disagreed" with the argument that "the packaging is easy to read." Furthermore, there was a noticeable differ-

ence in responses between genders for these two questions. For the argument "Packaging communicates easily which product is in question," the mean among male respondents was 3.2, whereas among female respondents, the mean was 4.0. Similarly, for the argument "packaging is easy to read," the mean was lower among male respondents.

# 4.4 Functionality and Recyclability

After examining the written and graphic components, the questionnaire also delved into the functionality and recyclability aspects. In general, the respondents were satisfied with the packaging's usability and recyclability.

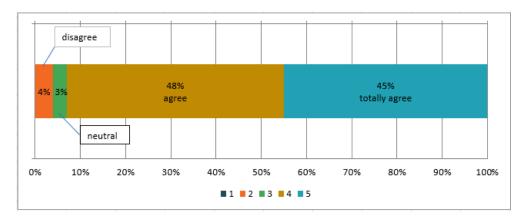


Figure 10. The packaging suits well for its purpose.

48% responded they "agree" with the claim "The packaging suits well for its purpose" followed by 45% answering they "totally agree" with it. Overall, 3% of respondents had a "neutral" opinion, and 4% "disagreed".

There were no significant differences observed between genders or age groups in response to these questions.

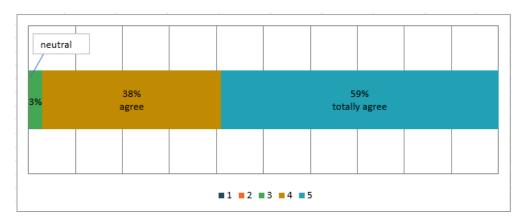


Figure 11. The packaging is easy to open and close.

Another claim considering the usability "Packaging is easy to open and close" also had overall good feedback. The chart above showcases that 59% "totally agreed" with the argument with it followed by 38% of respondents who "agreed" with it. Only 1 person (3%) answered "neutral".

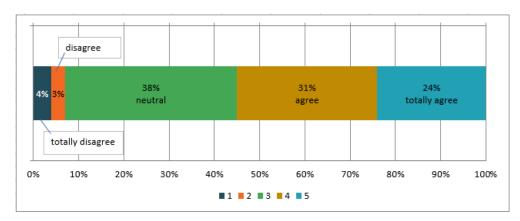


Figure 12. The packaging is easy to carry.

Regarding the claim "Packaging is easy to carry," the "neutral" option had more answers than other options with 38% responding, followed by 31% who "agreed". The chart shows that 24% of respondents "totally agreed" with the claim, while only 4% "totally disagreed" and 3% "disagreed".

Notably, the highest level of dissatisfaction was observed among respondents from the three oldest demographics. This response could be attributed to the fact that the material of the bottle may make it heavier to carry compared to some other materials. Male respondents tended to give slightly more positive answers to this argument, although the overall satisfaction rate was relatively high.

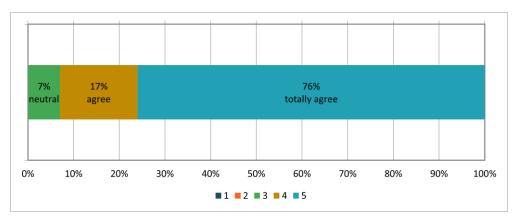


Figure 13. The packaging is easy to recycle.

The case product packaging is made of glass with a metal cap, and the next question aimed to understand respondents' views on the recyclability of the packaging. The statement "The packaging is easy to recycle" received a high satisfaction rate, with 76% indicating they "totally agree" with it. This suggests that glass is easily recognizable for recycling, and due to the product's nature, it's also straightforward to clean by rinsing. Additionally, 17% "agreed" with the statement, while 7% provided a "neutral" response.

There were only slight differences between female and male respondents regarding this statement. Of all female respondents, 85% "totally agreed" with the argument, whereas only 56% of male respondents did so.

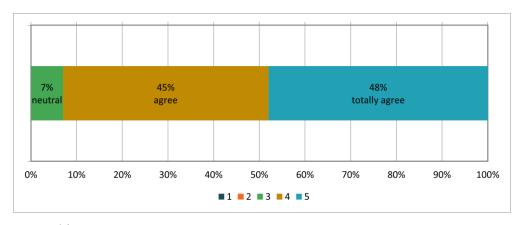


Figure 14. The packaging is a good size.

The questionnaire continued with the statement "The packaging is a good size". Respondents were overall very satisfied with the size of the bottle which contains 500 milliliters of the initial product.

48% "totally agreed" with the argument followed by 45% who "agreed" with it. "Neutral" answers

were given by 7% of the respondents. This statement didn't have any special distribution between different age groups or genders.

#### 4.5 Colors and Attractiveness

The next two Likert scale questions inquired about respondents' satisfaction with the colors and overall attractiveness of the case packaging.

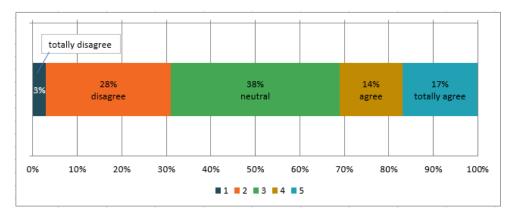


Figure 15. The colors of the packaging are attractive in my opinion.

The statement "The colors of the packaging are attractive in my opinion" elicited varied responses, with a significant portion of respondents expressing neutrality or disagreement. Specifically, 38% gave a "neutral" response, followed by 28% who "disagreed" with the argument. On the other hand, 17% "totally agreed" with the argument, while 14% "agreed".

Interestingly, the majority of respondents in the age group 18-25 (67%) indicated disagreement with the claim, as did the age group over 75 years old. Additionally, male respondents tended to be slightly more satisfied with the colors compared to female respondents.

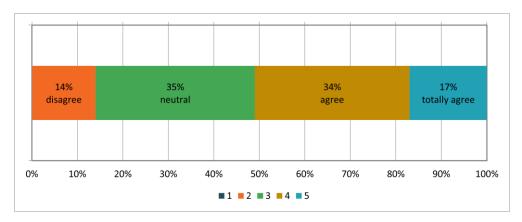


Figure 16. The packaging overall makes the product attractive.

Another statement assessing the packaging's attractiveness was "The packaging overall makes the product attractive," and it garnered a varied range of responses. The chart above illustrates that the most common response was a "neutral" opinion, with 35% of all respondents. Additionally, 34% indicated they "agree" with the statement, while 17% "totally agreed," and 14% "disagreed."

# 4.6 The Feeling of the Packaging

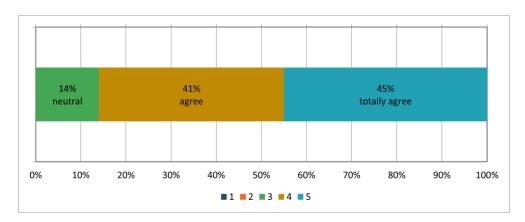


Figure 17. The packaging feels high quality.

The final Likert scale question was "The packaging feels high quality." The aim was to determine whether the material and overall appearance of the packaging conveyed a sense of quality. Respondents appeared quite pleased with the overall picture and feel of the packaging. Among all respondents, 45% "totally agreed" with the statement, while 41% "agreed." A "neutral" response was given by 14% of respondents. This statement received a favorable median score from both genders, with 4.3 from females and 4.4 from males.

#### 4.7 Open Questions

The last part of the questionnaire had three open questions. The answers to these questions can also be found in the appendices.

The first open question was "Does the packaging evoke any special emotions in you?". The question was voluntary but 18 (62%) responded to it. Responses indicated that three respondents expressed a desire to taste the product. Conversely, four respondents mentioned they were displeased with the color of the product, stating it was the first aspect they noticed. One respondent perceived the company as sympathetic, and others appreciated the simple design, assuming it was locally produced. Two respondents indicated that the packaging didn't elicit any special emotions. One respondent noted that the black color on the bottle was unappealing, while another wished for more vibrancy in the colors. Four respondents expressed a liking for the distinctiveness of the bottle. Opinions varied regarding the readability of the text on the bottle, with one respondent finding it easy to read and another unable to discern its contents.

The second open question was "What do you think is good in the packaging?" This question was mandatory, and all 29 respondents provided answers. It aimed to gain a deeper understanding of the specific aspects of the packaging that potential consumers find appealing. Some respondents highlighted the positive environmental aspect of the material, with one stating, "Glass is one of the most environmentally friendly materials and easiest to recycle." Others mentioned that the bottle could be repurposed after use. Additionally, a few respondents appreciated the bottle's size, noting that it contains an adequate amount of product and fits easily in the fridge. The ease of opening and closing the packaging was also praised, along with its convenient size for drinking straight from the bottle. Nine respondents mentioned that the simplicity of the design, without unnecessary text or extras, was appealing. Two respondents specifically liked the colors of the packaging, finding them stylish.

The final open question was "What do you think should be developed in the packaging?". Its purpose was to complement the answers obtained from the Likert scale questions and gain insight into what improvements respondents would like to see in the case product packaging. Like the previous open question, this was also mandatory, resulting in a 100% response rate.

Ten respondents (35%) suggested that the product name should be in a larger font size. Some of these comments also noted that the font style doesn't match the product. Additionally, some respondents mentioned that, as elderly individuals, it's challenging to see what the product contains. Color was identified as an area for development by nine respondents (31%), who expressed a desire for more vibrant packaging to enhance its attractiveness. They mentioned that additional colors could better describe the product, with green being suggested multiple times. Surprisingly, the majority of responses were focused on these two areas for potential development. Several respondents also suggested incorporating describable elements or adding other elements to make the label more engaging. Three respondents didn't identify any areas for improvement in the packaging, while one respondent suggested increasing the size of the product packaging.

Analyzing the data from the questionnaire reveals aspects that receive positive feedback regarding the case product packaging, as well as those that necessitate further development from the customers' perspective. The results are aggregated in the table below.

TABLE 1. Summary of the results from the questionnaire.

| Positive feedback       | Development areas            | Main differences between        |  |
|-------------------------|------------------------------|---------------------------------|--|
|                         |                              | respondents                     |  |
| Material                | Font size and style          | Elder generations claim the     |  |
| Size                    | Colors                       | packaging label is difficult to |  |
| Simplicity              | Label                        | read.                           |  |
| Reuse and recyclability | Graphic elements             |                                 |  |
| Usability               | Color of the initial product | Younger generations didn't      |  |
|                         |                              | feel the packaging was diffi-   |  |
|                         |                              | cult to carry.                  |  |
|                         |                              |                                 |  |
|                         |                              | Male respondents were           |  |
|                         |                              | slightly happier with the col-  |  |
|                         |                              | ors than female respondents.    |  |

#### 5 CONCLUSION

The objective of the thesis was to examine which elements make a good food product package and how the potential consumers find the current packaging of the case food product. The literature review examined the theory behind packaging elements and how different functions can be used to make good food product packaging. Using the results of the questionnaire, we can also answer the second research question. Analyzing the data from the questionnaire and reflecting on the theoretical background we can conclude how the potential consumers find the case food product packaging.

The case product's packaging material received overall very good feedback, as glass is more ecofriendly than some other materials, easy to recycle, and could be repurposed after use. Furthermore, glass is easily recognizable even without a verbal explanation of its composition. Respondents also remarked that the packaging felt high quality. Regarding the material, there was only some feedback from elderly respondents stating that it is not easy to carry since it is slightly heavy. This is most likely because glass bottles are heavier than plastic bottles, and they might feel difficult to carry. However, most potential consumers were between the ages of 26 and 39, and they didn't mention any difficulty in carrying it.

The usability of the product was experienced good and practical. The size and shape seemed to be pleasant and easy to store at home. These are important characteristics since consumers shouldn't have to transfer products to different packaging at home to use them. Also, the theoretical background shows that good usability strengthens trust among consumers. Furthermore, the bottle was easy to open and close, according to the respondents' opinions.

The most significant areas for improvement were the colors and the labeling of the case product. The majority of respondents expressed a desire for added color to the label and some elements that would better describe the product. Many also raised dissatisfaction about the color of the actual product, suggesting that descriptive colors or elements on the packaging could help alleviate misunderstandings. Additionally, the product name is written in a relatively small font size, making it difficult to read, especially for older consumers. The questionnaire revealed that most consumers would prefer the product name to be in a much larger font size and possibly use a different font style. Theoretical background research indicated that colors and font styles have a positive impact

on brand image. Furthermore, many respondents expressed a desire to see graphic elements on the label that would somehow describe the Spruce sprout drink. Some respondents mentioned in the open-ended questions that they assumed the product was locally produced and desired more information about its origin. Conversely, others expressed satisfaction with product labeling when it was concise and not overloaded with text.

It's important to acknowledge that while the research results from the questionnaire provide valuable insights, the sample of 29 responses may not fully represent the entirety of the case company's customer base. Despite efforts to accurately depict the preferences of target consumers, it's crucial to recognize that the responses received may not entirely mirror the demographics and opinions of all customers. Therefore, while the findings offer valuable perspectives, they should be interpreted with caution and may benefit from further validation through larger-scale or more targeted research methods.

The majority of the respondents in the research were between 26-39 years old, with 45% male and 30% female of the total respondents. However, 69% of the total answers were given by females and 31% by males. Although the questionnaire was conducted at an event focusing on selling local products, it's essential to consider which generation and gender correspond closest to the customer base it knows and to develop a plan for the product's packaging based on that. While it's impossible to generalize the answers received, based on the questionnaire data, it can be shown that the development areas were identified among those who participated in the survey.

In conclusion, effective food product packaging is designed to fulfill its intended purpose seam-lessly. It should be user-friendly, providing clear information about the product's contents through easily readable text and supporting elements. As environmental concerns grow, the use of environmentally friendly materials and clear recycling instructions are increasingly important considerations. Additionally, colors and other graphic elements can be leveraged to describe the product and differentiate it from competitors. It's easy to become "blind" to one's products, which is why the conducted questionnaire holds significant value for any Arctic Food Lab company. The questionnaire provides unbiased feedback from customers encountering the product for the first time. While some questions may need adjustments depending on the specific product packaging, customer surveys of this nature offer valuable insights for companies seeking to enhance the competitiveness and appeal of their product packaging from the consumer's perspective.

## 6 RECOMMENDATIONS

After examining the theory of food product packaging, conducting the questionnaire, and analyzing the data gathered, the following recommendations for improvement would be beneficial for enhancing the case food product packaging. By identifying the values that the product fulfills, it helps to design packaging that supports these values.

Firstly, incorporating graphic elements that effectively communicate the unique characteristics of the spruce sprout drink would provide a quick and visually appealing way to convey the product's content. For example, including a graphic of a spruce sprout could instantly communicate the essence of the product and add visual interest to the packaging. Additionally, leveraging colors and font styles that evoke positive associations can enhance brand image and consumer trust. Introducing different shades of green, for instance, could help soften the contrast between the product and its packaging. Considering colored glass as an alternative option could also address concerns raised by multiple respondents who disliked the color of the product.

Secondly, enlarging the product name and considering font style changes are essential. The current small font size makes it difficult to read, so increasing its size and exploring different font styles, possibly through examples from successful designs found online, could significantly improve readability and overall packaging appeal.

Thirdly, providing clearer information about the product's origin, such as through short storytelling or labeling indicating local production, would appeal to consumers interested in local food culture. Highlighting the local business and ingredients' strength and value could be achieved by incorporating a QR code on the packaging, and directing consumers to Yrttiaitta's webpage for additional details about the company, manufacturing methods, stories, usage tips, and relevant information. This approach offers consumers easy access to comprehensive product information and enhances transparency. Furthermore, considering alternative packaging labels, such as the Hyvää Suomesta -label (the Produce of Finland), could quickly communicate the product's origin and foster trust among customers.

Additionally, before launching new product packaging, the company should test and gather feed-back from potential consumers. Utilizing social media platforms to encourage feedback on the packaging design would be an effective and fast approach.

Finally, for the design and development of the case food product packaging, engaging a graphic designer specialized in food product packages from Oulu would be advantageous. When selecting a graphic designer, evaluating their portfolio to assess their style and previous works would help ensure compatibility with the company's vision and objectives.

## 7 DISCUSSION

The thesis was interesting and a learning process for the author. The topic was very enjoyable personally for the author, which made the research around the topic meaningful and supported her professional development. The author had personal experience working in the commissioner organization, which made the thesis topic relatively easy to outline since the author had some experience with what kind of topic could be useful for the Arctic Food Lab companies. As the research was made with one case company's product, it could be applied to different companies by modifying the questionnaire to fit different food product packages.

Limiting the theoretical background was the most difficult part of the process since the packaging design process is complex and includes multiple points of view from technical implementation to the graphical design process. Overall, the theory outlined the functions and elements of food packaging which are practical and help to understand what type of issues should be considered in the designing process. Theoretical background was used in designing the questionnaire and therefore to answer the research questions. The questionnaire was successfully implemented in a market where respondents could physically see, touch, and try the usability of the product packaging. Analyzing the data from the questionnaire gave valuable information on how the potential consumers of the case product find the packaging. However, the conclusion of the answers is not unambiguous since preferences in how potential users see the case product packaging depend on the environment and cultural and personal background of the respondents. Still, in the answers, certain characteristics arose several times which could be developed to satisfy more the expectations of the consumers.

Overall, the author believes that the outcome of the research provides useful information for the case products company. Packaging design can be seen as an effective tool to support sales and attract consumers' attention to the desire to buy it.

## REFERENCES

Albaum Gerald, Duerr Edvin & Josiassen Alexander 2016. International Marketing and Export Management. Eight edition. Edinburg: Pearson Education Limited.

Ashaduzzaman Md & Mahbub Farzana 2016. Understanding the Role of Packaging Elements on Buying Detergent Powder in Dhaka City: A Study on Bangladesh. Asian Journal of Business Research, (1), 6. 19-29. Search date 5.11.2023. <a href="https://www.researchgate.net/publication/314450077">https://www.researchgate.net/publication/314450077</a> Understanding the Role of Packaging Elements on Buying Detergent Powder in Dhaka City A study on Bangladesh.

Buether Axel 2014. Color: Design principles, Planning strategies, Visual communication. Munich: Detail Business Information GmbH. Search date 20.11.2023. <a href="https://ebookcentral.proquest.com/lib/oamk-ebooks/reader.action?docID=4822067">https://ebookcentral.proquest.com/lib/oamk-ebooks/reader.action?docID=4822067</a>.

Design Company 2022b. Kierrätys- ja pakkausmerkinnät. Search date 12.3.2024. <a href="https://www.designcompany.fi/pakkausten-kierratys-ja-pakkausmerkinnat/">https://www.designcompany.fi/pakkausten-kierratys-ja-pakkausmerkinnat/</a>.

Design Company 2024a. Pakkaussuunnittelun tekninen toteutus. Search date 12.3.2024. https://www.designcompany.fi/pakkaussuunnittelun-tekninen-toteutus/.

Design Company 2024c. Mitä pakkaussuunnittelussa pitää ottaa huomioon. Search date 12.3.2024. https://www.designcompany.fi/mita-pakkaussuunnittelussa-pitaa-ottaa-huomioon/.

Dimitrov A Dimiter 2011. Statistical Methods for Validation of Assessment Scale Daya in Counseling and Related Fields. Alexandria: American Counseling Association, 2011. Search date 6.2.2024. https://ebookcentral.proguest.com/lib/oamk-ebooks/reader.action?docID=1832731.

Emblem Anne & Emblem Henry 2012. Packaging Technology: Fundamentals, Materials and Processes. Philadelphia: Woodhead Publishing Limited. Search date 20.10.2023. <a href="https://ebookcentral.proguest.com/lib/oamk-ebooks/reader.action?docID=1583649">https://ebookcentral.proguest.com/lib/oamk-ebooks/reader.action?docID=1583649</a>.

European Union 2023. Food Labelling Rules. Search date 16.11.2023. <a href="https://europa.eu/youreurope/business/product-requirements/food-labelling/general-rules/index\_en.htm#in-line-nav-1">https://europa.eu/youreurope/business/product-requirements/food-labelling/general-rules/index\_en.htm#in-line-nav-1</a>.

Firmansyah Muhammed Anang & Fatihudin Didin 2019. Product packaging analysis using the VIEW model on consumer purchasing decision of fruit-flavored drinks products in Surabaya. Sinergi 1 (9), 11-13. Search date 17.2.2024. <a href="https://www.researchgate.net/publication/333023545\_PROD-UCT\_PACKAGING\_ANALYSIS\_USING\_VIEW\_MODEL\_ON\_CONSUMER\_PURCHASING\_DE-CISION\_OF\_FRUIT\_FLAVORED\_DRINKS\_PRODUCT\_IN\_SURABAYA.">https://www.researchgate.net/publication/333023545\_PRODUCT\_PACKAGING\_ANALYSIS\_USING\_VIEW\_MODEL\_ON\_CONSUMER\_PURCHASING\_DE-CISION\_OF\_FRUIT\_FLAVORED\_DRINKS\_PRODUCT\_IN\_SURABAYA.</a>

Grip 2013. Best Practices for Graphic Designers, Packaging: An Essential Guide for Implementing Effective Package Design Solutions. Chicago: Quarto Publishing Group USA. Search date 13.11.2023. https://ebookcentral.proguest.com/lib/oamk-ebooks/reader.action?docID=3399940.

Holmes Gary R. & Paswan Audhesh K. 2014. Consumer reaction to new package design. Journal of Product & Brand Management. (4). Search date 25.10.2023. (PDF) Consumer reaction to new package design (researchgate.net).

Hundekar S.G., Appannaiah H.R., Reddy P.N., and Ramanath 2010. Principles of Marketing. Mumbai: Himalaya Publishing House. Search date 13.11.2023. <a href="https://ebookcentral.proquest.com/lib/oamk-ebooks/reader.action?docID=3011175">https://ebookcentral.proquest.com/lib/oamk-ebooks/reader.action?docID=3011175</a>.

Industrial packaging 2021. Exploring The Different Types of Food Packaging Materials. Search date 10.11.2023. <a href="https://www.industrialpackaging.com/blog/types-of-food-packaging-materials">https://www.industrialpackaging.com/blog/types-of-food-packaging-materials</a>.

Järvi-Kääriäinen Terhen & Leppänen-Turkula Annukka 2002. Pakkaaminen - Perustiedot pakkauksista ja pakkaamisesta. Helsinki: Tekijät ja Pakkausteknologia – PTR ry.

Järvi-Kääriäinen Terhen & Ollilla Margareetta 2007. Toimiva pakkaus. Helsinki: Tekijät ja Pakkausteknologia – PTR ry.

Kauppapuutarhaliitto 2024. Sirkkalehti. Search date 30.1.2024. <a href="https://kauppapuutarhaliitto.fi/tie-toa-liitosta/menekinedistaminen/sirkkalehti/#top">https://kauppapuutarhaliitto.fi/tie-toa-liitosta/menekinedistaminen/sirkkalehti/#top</a>.

Krishnaswami O.R & Satyaprasad B.G. 2010. Business Research Methods. Mumbai: Himalaya Publishing House. Search date 6.2.2024. <a href="https://ebookcentral.proquest.com/lib/oamk-ebooks/reader.action?docID=588025">https://ebookcentral.proquest.com/lib/oamk-ebooks/reader.action?docID=588025</a>.

K-ruoka 2024. Näin lajittelet yleisimmät pakkausjätteet [online image]. Search date 20.2.2024. https://www.k-ruoka.fi/artikkelit/koti-ia-hyva-olo/nain-kierratat-yleisimmat-elintarvikejatteet.

Kuvykaite Rita, Navickiene Laura, &. Dovaliene Aiste 2009. Impact of package elements on consumer's purchase decision. Economics & Management 14, 441. Search date 26.10.2023. <a href="https://www.ecoman.ktu.lt/index.php/Ekv/article/view/9405">https://www.ecoman.ktu.lt/index.php/Ekv/article/view/9405</a>.

Kuluttajaliitto 2022. Ruoan pakkausmerkinnät. Search date 25.11.2023 <a href="https://www.kuluttaja-liitto.fi/materiaalit/ruoan-pakkausmerkinnat/">https://www.kuluttaja-liitto.fi/materiaalit/ruoan-pakkausmerkinnat/</a>.

Lehtinen Liisa 2021. Kestävä pakkaus. Forssa: Suomen Pakkausyhdistys ry.

Oulu2026, European Capital of Culture 2023: Arctic Food Lab. Search date 26.10.2023. https://oulu2026.eu/arcticfoodlab/.

Paakkanen Tuomo 2013. Mobiilikoodit rantautuvat elintarvikealalle. Kehittyvä Elintarvike. Search date 13.2.2024.

Poturak Mersid 2014. Influence of Product Packaging on Purchase Decision. European Journal of Social and Human Sciences, 2014:3, 144. Search date 25.10.2023. <u>Influence-of-Product-Packaging-on-Purchase-Decisions.pdf</u> (researchgate.net).

Robertson Gordon L. 2009. Food Packaging and Shelf Life: A Practical Guide. New York: Taylor & Francis Group. Search date 30.10.2023. <a href="https://ebookcentral.proquest.com/lib/oamk-ebooks/reader.action?docID=566066">https://ebookcentral.proquest.com/lib/oamk-ebooks/reader.action?docID=566066</a>.

Rowley Jenny 2014. Designing and using research questionnaires. Management Research Review, 37 (3), 308-328. Emerald Group Publishing Limited. Search date 15.2.2024. <a href="https://www.emerald.com/insight/content/doi/10.1108/MRR-02-2013-0027/full/pdf?title=designing-and-using-research-questionnaires">https://www.emerald.com/insight/content/doi/10.1108/MRR-02-2013-0027/full/pdf?title=designing-and-using-research-questionnaires</a>.

Rundh Bo, 2016. The role of packaging within marketing and value creation. British Food Journal, 118 (10), 2491-2493. Search date 23.11.2023. <a href="https://www.emerald.com/insight/content/doi/10.1108/BFJ-10-2015-0390/full/pdf?title=the-role-of-packaging-within-marketing-and-value-creation">https://www.emerald.com/insight/content/doi/10.1108/BFJ-10-2015-0390/full/pdf?title=the-role-of-packaging-within-marketing-and-value-creation</a>.

Ruokatieto 2022. Hyvää Suomesta -merkki. Search date 19.1.2023 <a href="https://ruokatieto.fi/hyvaa-suomesta-merkki">https://ruokatieto.fi/hyvaa-suomesta-merkki</a>.

Ruokavirasto, Finnish Food Authority 2023a. Elintarvikkeet, pakkausmerkinnät ja markkinointi. Search date 21.11.2023. <a href="https://www.ruokavirasto.fi/elintarvikkeet/elintarvikkeala/pakkausmerkinnat-ja-markkinointi/">https://www.ruokavirasto.fi/elintarvikkeet/elintarvikkeala/pakkausmerkinnat-ja-markkinointi/</a>.

Ruokavirasto, Finnish Food Authority 2023b. EU:n luomutunnus eli eurolehti. Search date 31.1.2024. <a href="https://www.ruokavirasto.fi/elintarvikkeet/elint

Suomalainentyö 2024. Avainlippu. Search date 30.1.2024. <a href="https://suomalainentyo.fi/yrityk-sille/avainlippu/">https://suomalainentyo.fi/yrityk-sille/avainlippu/</a>.

Sydänmerkki 2024. Sydänmerkki auttaa valinnoissa. Search date 31.1.2024 <u>Sydänmerkki | Sydänmerkki | Sydänmerkki (sydanmerkki.fi)</u>.

U can pack 2021. Types of packaging: primary, secondary, and tertiary packaging [online image]. Search date 20.3.2024. <a href="https://www.ucanpack.com/blog/post/types-of-packaging-primary-second-ary-and-tertiary-packaging">https://www.ucanpack.com/blog/post/types-of-packaging-primary-second-ary-and-tertiary-packaging</a>.

Webropol 2024, kyselyt ja raportointi. Serach date 14.3.2024. <a href="https://webropol.fi/kyselyt-ja-raportointi/">https://webropol.fi/kyselyt-ja-raportointi/</a>.

|   | Kysely tuotepakkauksesta  |
|---|---|
| ( | j Pakolliset kysymykset merkitty tähdellä (*)   |
|   |   |
|   | Dlen kansainvälisen liiketalouden opiskelija Oulun ammattikorkeakoulussa. Kysely on osa<br>pinnäytetyötäni ja sen tarkoitus on selvittää mielipiteitä ja tuntemuksia case-tuotteen pakkauksesta.                      |
|   | (yselyyn vastataan täysin anonyymisti ja vastauksien analysoinnin jälkeen tiedot poistetaan. Kyselyyn<br>astanneita ei voida tunnistaa vastauksien perusteella. Kyselyyn vastaaminen kestää noin <u>5 minuuttia</u> . |
| ŀ | (iitos osallistumisestasi ja ajastasi!  |
|   | 'stävällisesti,<br>aura Suorsa  |
| 1 | . lkä *   |
| ( | Alle 18 v.  |
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| 2 | 2. Sukupuoli *  |
| ( | Nainen  |
| ( | Mies  |
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| ( | En halua sanoa  |
| : | 3. Mikä kiinnitti ensimmäisenä huomiosi pakkauksessa? *   |
| ( | ) Materiaali  |
| ( | ○ Koko  |
| ( | Muoto   |
| ( | Värit   |
| ( | Etiketti  |
| ( | Cogo (aitta+teksti)   |
| 1 | <u> </u>  |

|   | 1                         | 2        | 3                | 4      | 5   |  |
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| Täysin eri mieltä   | 0                         | 0        | 0                | 0      | 0   | Täysin samaa mieltä                        |
| Pakkaus on helppo   | lukuine                   | n *      |                  |        |     |  |
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| Pakkaus soveltuu h  | nyvin se                  | n käyttö | tarkoituk        | seen * |     |  |
|   | 1                         | 2        | 3                | 4      | 5   |  |
| Täysin eri mieltä   | 0                         | 0        | 0                | 0      | 0   | Täysin samaa mieltä                        |
| Pakkaus on helppo   |                           |          |                  |        |     |  |
|   | 1                         | 2        | 3                | 4      | 5   |  |
| Pakkaus on helppo<br>Täysin eri mieltä                                      |                           |          |                  | 4<br>O | 5   | Täysin samaa mieltä                        |
| Täysin eri mieltä   | 1                         | 2<br>O   | 3                |        |     | Täysin samaa mieltä                        |
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| 10. Pakkaus on sopiv   | an koko             | inen *          |                  |              |          |                     |
|--|---------------------|-----------------|------------------|--------------|----------|---------------------|
|  | 1                   | 2               | 3                | 4            | 5        |                     |
| Täysin eri mieltä  | 0                   | 0               | 0                | 0            | 0        | Täysin samaa mieltä |
| I1. Pakkauksen värit   | ovat mi             | elestäni        | houkutte         | elevat *     |          |                     |
|  | 1                   | 2               | 3                | 4            | 5        |                     |
| Täysin eri mieltä  | 0                   | 0               | 0                | 0            | 0        | Täysin samaa mieltä |
| 12. Pakkaus kokonais   | suudess             | saan tek        | ee tuotte        | esta hou     | ıkuttele | evan *              |
|  | 1                   | 2               | 3                | 4            | 5        |                     |
| Täysin eri mieltä  | 0                   | 0               | 0                | 0            | 0        | Täysin samaa mieltä |
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|  |                     | alta *          |                  |              |          |                     |
|  | adukka              |                 |                  |              |          |                     |
| 3. Pakkaus tuntuu la Täysin eri mieltä                             | adukka              | 2               |                  |              | 5<br>O   | Täysin samaa mieltä |
| 13. Pakkaus tuntuu la  | adukka<br>1         | 2<br>O          | O<br>sin erityis | O iiä tuntei | 0        | Täysin samaa mieltä |
| 13. Pakkaus tuntuu la<br>Täysin eri mieltä<br>4. Herättääkö pakkau | adukka<br>1         | 2<br>O          | O<br>sin erityis | O iiä tuntei | 0        | Täysin samaa mieltä |
| 13. Pakkaus tuntuu la Täysin eri mieltä  4. Herättääkö pakkau      | adukka 1 O us sinus | 2<br>Ossa jotak | i hyvää?         | iiä tuntei   | 0        | Täysin samaa mieltä |

# **APPENDIX ANSWERS IN OPEN QUESTIONS**

# **APPENDIX 2**

#### Herättääkö pakkaus sinussa jotakin erityisiä tunteita?

Vastaajien määrä: 18

Vastaukset

Yritys vaikuttaa sympaattiselta

Neste näkyy ensimmäisenä, ei hyvän väristä

Haluaisin juoda sen.

Maku tunteita

Eipä

Itse tuotteen väri ei niin houkutteleva, mutta etiketin luettua ymmärtää mitä tuote sisältää ja ymmärtää värinkin:)

Ytimekäs ja helppolukuinen

Musta väri ei miellytä.

Fi

Mukavan yksinkertainen, vaikuttaa lähituotetulta

Sopivan kokoinen. Sisältö jää nopealla katsomalla mysteeriksi.

Olisi mielenkiintoinen maistaa tätä

Hyvä jämpti pullo

En aivan nähnyt tekstiä lukea,,,,, ilmeisesti kuusesta tehtyä juomaa. Se on hienoa.

Ensimmäisenä huomio kiinnittyy tuotteen haaleaan väriin, josta tulee mieleen pissa, ei ole houkuttelevin fiilis. Ehkä vähän epäluuloinen tunne tulee aluksi.

Selkeä

Hieno pullo.

Voisi etiketti olla värikäs tai värikkäämpi

#### Mikä pakkauksessa on mielestäsi hyvää?

Vastaajien määrä: 29

# Vastaukset Materiaali Kokonaisuus. Voi käyttää hyvin muuhunkin jatkossa :) Yksinkertaisuus Helppo avata ja sulkea Värit ja selkeys sopii hyvin yhteen. Tyylikäs. Selkeä, herätti mielenkiintoa mitä pakkaus sisältää Lasi on helpoin ja luontoystävällisin kierrättää ja uusiokäyttää sekä pullo on kooltaan mukava. Ei ehkä reissu-kokoa mutta kotisäilytykseen hyvä. Kierrekorkki helppo avata ja pitää puhtaana! Yksinkertaisuus voi panna lasinkeräykseen Koko ja näyttää helpolta ja miellyttävältä kuluttaa. Materiaali ja koko. Sopii hyvin jääkaappiin Design on kiva Tarpeeksi iso, paljon juomaa. Yksinkertainen tuote. Kivan pelkistetty pakkaus ja etiketti Ei liian monimutkainen Lasinen pakkaus Siinä ei ole ylimääräistä Lasinen pullo niin kuin ennen vanhaan melkein kaikilla oli. Selkeät tekstit Hyvän oloinen pullo voisin ostaa kaupasta myös sillä että saisin siitä myöhemmin vesipullon! Lasipullo on laadukas Hyvä korkin koko.Helppo juoda. Selkeä etiketti, tyylikäs väritys, hyvä pullon muoto ei liikaa tekstiä ns. etu-etiketissä

#### Mitä pakkauksessa pitäisi mielestäsi kehittää?

Vastaajien määrä: 29

#### Vastaukset

Etiketistä voisi käydä selkeämmin läpi mikä tuote on kyseessä

Etikettiä, tuotteen nimi isommalla

Vaikea löytää kehitetävää.

Joku elementti joka kuvastaa tuoetetta. Esim sitruuna

Ehkä väriä lisää ja kyseisen tuotteen nimeä isommalle näkyviin

En osaa kertoa tarvinneekokaan

Vāriā lisāā

En näe suoranaisesti mitään kehitettävää.

Pirteyttä ja väriä etikettiin?

Etikettiä vähän mielenkiinnoisemmaksi. Etikettiluettelo muuten hyvä, vähän siirtäisin osia parempaan järjestykseen:)

Väri, yrtti=vihreä

Selkeämmäksi mitä se on. Värimaailma

Pakaauksessa voisi olla enemmän väriä

Isomalla mikä tuote on kyseessä

Etiketin värejä. Vihreän sävyt toisivat tuotetta paremmin esille.

\_

Etiketti voisi olla esittävämpi?

Kuusenkerkkäjuoma lukee melko pienellä

Etiketin värit

Voisi olla isompikin pullo

Teksti koko

Jotkin fontit eivät sovi tuotteeseen/tee tuotteesta kutsuvia esim. fontti jolla "kuusenkerkkäjuoma" on kirjoitettu.

Houkuttelevampi kokonaisuus pakkauksessa, nyt hyvin yksinkertainen. Voisiko pullo olla läpinäkymätön niin tuotteen väri ei ihmetyttäisi.

Ehkä vähän isommalla tai eri fontilla "kuusenkerkkäjuoma"

Kierteet tuntuvat hieman liian lyhyiltä. Lisäksi etiketissä on 4 riviä, mutta vain yhdellä on tekstiä - erikoista.

Tuotteen nimi pitäisi olla isommalla.

Tuote isommalla tekstillä. Vanhempikin näkee helpommin, mikä tuote. Jos mennään Suomen rajojen ulkopuolelle, pitäisin selkeän etiketöinnin eli omat kieliversiot. Ei tupaten täyteen kaikkia kieliä samaan etikettien.

Yrttiaitta teksti on epäselvä

väriä, väriä, väriä. Eri tuotteet voisi olla eri väreillä - selkeä tuoteperhe