Is hard seltzer considered as a new (un)healthy drinking alternative?

An experimental study on the influence of female body illustration, position of nutrition facts, and outline colour saturation on the perceived healthiness, expected digestibility, expected natural taste, and purchase intention.

Author
Nicole Woolderink
S2641615

Master thesis
University of Twente
Faculty of Behavioural, Management and Social Sciences (BMS)
MSc. Communication Science

Examination Committee
First supervisor: Dr. J.J. van Hoof
Second supervisor: Dr. T.J.L. van Rompay

July, 2022
Enschede, The Netherlands

Abstract

Aim. Dutch adults are becoming more health conscious and therefore the desire for reduced sugar, low-calorie, and low-alcoholic beverages expanded on the market. Hard seltzer is a relatively new product category in Europe that fits in the current desire to live healthier (Norris et al., 2021). Accordingly, this study aims to investigate whether three design elements on the product packaging can influence health perceptions of hard seltzer. The design elements are a slim or curvy body illustration, the nutrition facts positioned at the top or at the bottom, and high colour-saturated typeface outlining or low colour-saturated typeface outlining.

Method. A 2 (female body illustration: slim vs. curvy) x 2 (position of nutrition facts: top vs. bottom) x 2 (outline colour saturation: high vs. low) experimental design was conducted. Consequently, eight hard seltzer cans were designed that represent the same product but differentiate in design elements. The data was collected by means of an online questionnaire.

Results. Results show a similar interaction effect between female body illustration and general health interest on the perceived healthiness and the expected digestibility. People who are focussed on a healthy lifestyle perceive a hard seltzer can with a slim body illustration as healthier and easier to digest compared to a hard seltzer can with a curvy body illustration. Moreover, the results of this study reveal that the congruent design elements (slim body illustration x top position and curvy body illustration x bottom position) lead to a higher perceived healthiness and higher expected digestibility compared to the incongruent design elements (slim body illustration x bottom position and curvy body illustration x top position).

Conclusion. This study reveals that hard seltzer brands can possibly communicate the inherent properties of hard seltzer to health-conscious people by illustrating a slim body on the product packaging. Moreover, this study showed that the congruency between design elements leads to more positive evaluations regardless of the collective symbolic meaning the design elements convey.

Keywords: *package design, product package cues, hard seltzer, healthiness, heaviness perceptions, package shape, product image location, package colour*

Table of contents

1. Introduction

In the past few years, the food consumption and nutrient intake among Dutch adults have changed favourably. Dutch adults consume more fruit and vegetables and the intake of sugar-containing beverages decreased (Dinnissen et al., 2021). This indicates Dutch adults are becoming more conscious about their diet and are trying to make healthier food choices. Especially, Generation Z and millennials are concerned with living a healthier life as they view it as an integral part of their physical and mental health (European Institute of Innovation & Technology, 2021; Deibert, 2020). Since the rising health consciousness among adults, the desire for reduced sugar, low-calorie, and low-alcoholic beverages expanded on the market (Norris et al., 2021).

Hard seltzer is a relatively new product category in Europe that fits in the current desire to live healthier (Norris et al., 2021). Hard seltzer is a blend of sparkling water, alcohol, and fruit flavouring. The flavour variations range from basic flavours such as raspberry, grapefruit, mango, and lime to more sophisticated flavours like lemon mint, lime cucumber, and pear ginger, depending on the brand. The alcohol by volume (ABV) of hard seltzer ranges from 4% to 6%, similar to many other beers and ciders (Lin, n.d.). Most hard seltzers have 60 to 100 calories per can, none to 0.6 grams of carbohydrates, and contain no sweeteners or preservatives.

In the United States, hard seltzer became extremely popular in the summer of 2019. The product category showed a 193 per cent increase in sales from 2018 to the following year, accounting for almost $487.8 million in sales (Nielsen, 2019). At the beginning of 2021, hard seltzer entered the European market, and the number of new product introductions is still rising (Sonneville, 2021).

The main reason for the popularity of hard seltzer is that it is healthier compared to other alcoholic beverages (Lin, n.d.). Another reason for its growth is that hard seltzer sells a lifestyle that is not marketed to a specific gender. Moreover, hard seltzer is convenient, fun, and compared to other beverages in similar product categories viewed as more upscale (Lin, n.d.).

On the European market, most hard seltzer brands are packed in metal cans and fewer in glass bottles. Most product packaging has a clean, tidy, and innovative look with a white base and

coloured illustrations. The number of calories, alcohol by volume, and other nutritional values have a prominent place on the product packaging.

While grocery shopping consumers spent limited time and cognitive resources on deciding which product to choose; product packaging aids consumers in deciding which product to purchase by drawing consumers' attention and assuring them that this is the right product that suits their needs (Gil-Pérez et al., 2020). Package design features such as colour (Mai et al., 2016; Tijssen et al., 2017; Mead & Richerson, 2018), health claims (Franco-Arellano et al., 2020; Biondi & Camanzi, 2020), package shape (Koo & Suk, 2016; Yarar et al., 2019; Van Ooijen et al., 2017; Sheehan et al., 2020), and images (Kapsak et al., 2008; Carrillo et al., 2014; Delivett et al., 2020) are recognised to have an impact on consumer perceptions regarding the healthfulness of a product.

Former research has not paid attention to package design elements of alcoholic products that influence the perception of being a relatively healthy option. Therefore, this study attempts to bridge the gap in the literature by testing whether the design elements of female body illustration, position of nutrition facts, and outline colour saturation can influence the perceived healthiness, expected digestibility, expected natural taste, and purchase intention of a hard seltzer can. The design elements are based on former research; however, the exact elements are not studied before, and they are also new in the context of alcoholic beverages. Hence, the following research question is formulated:

"To what extent do female body illustration, position of nutrition facts, and outline colour saturation affect the perceived healthiness, expected digestibility, expected natural taste, and purchase intention of consumers?"

To answer the research question, a 2 (female body illustration: slim vs. curvy) x 2 (position of nutrition facts: top vs. bottom) x 2 (outline colour saturation: high vs. low) between-subjects experimental research design with general health interest as a moderator will be conducted. The study contains eight conditions which include eight different manipulations of the product package of hard seltzer. In an online questionnaire participants will evaluate one of the

eight manipulations by answering questions regarding their general health interest, the perceived healthiness, expected digestibility, expected natural taste, and purchase intention. The results of this research will provide insight into how the new design elements influence product evaluations in the context of alcoholic beverages. For hard seltzer as a product category, this research provides insight into how well the design elements communicate the inherent properties of hard seltzer as being a healthier alternative to other alcoholic beverages.

2. Theoretical framework

In this section, literature relevant to the context of this study will be discussed. First, product package cues are introduced, and examples of healthiness perceptions that are derived from product packaging are described. Second, the subsections address the design elements: female body illustration, position of nutrition facts, and outline colour saturation. Third, the congruency effect between design elements is discussed. Fourth, the moderator, general health interest is described. At last, the research model and hypotheses are presented.

2.1 Product package cues

Given the large number of choices for a specific product in a supermarket, brands use the product packaging as a powerful instrument to attract consumer attention, convey meaning, and elicit emotion (Machiels et al., 2019). Many consumers lack the motivation to extensively analyse specific information, such as nutrition numbers or ingredients, instead making automatic and spontaneous choices in favour of options that intuitively match their goals. Therefore, brands are less able to differentiate themselves with improved product quality and the product packaging is used to subtly draw consumer attention (Machiels et al., 2019). Moreover, according to Tijssen et al. (2017), consumers learn to associate extrinsic cues, such as package colour or material with intrinsic properties like taste, flavour, and texture of the product.

There are two forms of extrinsic package cues namely explicit and implicit cues. Explicit cues are on-package text such as nutrition facts, health claims, and logos whereas implicit cues are more abstract and less direct such as colour and graphics (Granato et al., 2021). The reason for the distinction is the process by which implicit and explicit cues transfer meaning. Consumers form beliefs based on explicit cues primarily through a conscious and cognitive formation process and implicit cues imply a symbolic and abstract meaning through an associative inferential process. Implicit cues are more likely to be processed automatically and unconsciously than explicit cues (Fishbein & Ajzen., 1975 & Lindh et al., 2016 as cited by Granato et al., 2021).

2.2 Health perceptions derived from product packaging

Several studies have proven that explicit cues on product packaging can positively influence health perceptions (Wang et al., 2016; Findling et al., 2018; Biondi & Camanzi, 2020). For instance, Biondi & Camanzi (2020) assessed the effect of different front-of-pack claims on consumer perceptions. The claims were related to nutrition, environmental impact, hedonic characteristics, and innovation. Results show the nutrition front-of-pack claim is considered the most effective. Consumers exposed to a claim highlighting the nutritional value of the product perceived it as healthier and more natural compared to consumers exposed to the other claims (Biondi & Camanzi, 2020). Even though the effectiveness of explicit cues is proven, more subtle design elements that symbolically communicate meaning have been demonstrated to be more successful (Kapsak et al., 2008; Piqueras-Fiszman et al., 2013; Vila-López & Küster-Boluda, 2018).

Intrinsic cues are based on innate and learned associations between elements of the product packaging and the goals or results associated with them (Machiels et al., 2019). Visual imagery on product packaging is a powerful design element for communicating an underlying meaning and capturing the attention of customers (Delivett et al., 2020). For example, Carrillo et al. (2014) found that ambiguous health-related images, such as a person exercising, or a heart and stethoscope presented on the product package, can improve the appeal, trustworthiness, and health perceptions of the product. Furthermore, Delivett et al. (2020) state that even when consumers have access to other more explicit written information, images can subtly influence how consumers judge the health properties of dietary supplements. In many countries, the use of health claims on product packaging is regulated by the government, while this research demonstrates that even non-misleading images can influence how consumers evaluate regulated written health information (Delivett et al., 2020).

2.3 Female body illustration

The media creates weight stigma by portraying larger-bodied people poorly and by promoting unrealistic standards for appearance and body shape (Rajendrah et al., 2017). Over the past years, the ideal beauty image has shifted from a curved body type to the current thin ideal of a slim body (Yarar et al., 2019). The promotion of the thin ideal cause greater attitudes of dislike towards overweight people. As a result, women's physical and mental well-being are impacted, and women have difficulties accepting their bodies (Selensky & Carels, 2021). The notion of an ideal body shape appears to be strongly embedded in the human mind, as indicated by an unconscious preference for slim people relative to overweight people, as well as implicit stereotyping of overweight people as lazy in comparison to thin people (Schwartz et al., 2006).

Over time, people have created a fundamental "thin-is-good" body stereotype in their mind. Moreover, thin body shapes also have favourable health associations, implying a shift from the "thin-is-good" stereotype to "thin is healthy" (Yarar et al., 2019). Healthiness can be quantified in several ways based on spatial bodily aspects. For instance, by the circumference of the chest, waist, hip, and thigh (Van Ooijen et al., 2017). A wider circumference indicates being unhealthy and in turn, a smaller circumference is perceived as healthy. Thus, based on body shape inferences are made regarding someone's health.

A large body of literature validates that healthiness can also be evaluated in terms of shape in other contexts, such as product packaging (Fenko et al., 2016; Koo & Suk, 2016; Van Ooijen et al., 2017; Yarar et al., 2019; Sheehan et al., 2020). Packaging that represents a slim body shape acts as a symbolic cue for product healthiness as opposed to a wide body shape, which makes the package's width-to-height ratio an implicit indicator of how healthy the product is. For instance, Van Ooijen et al. (2017) studied the effect of different types of drink yoghurt bottles on the perceived healthiness. The bottles were either slim or wide mimicking the shape of a human body. Results indicate that slim (versus wide) packaging can increase the healthiness perception of the drink yoghurt. Yet, it depends on the consumers' interest in healthy food. When consumers have a health-related buying goal, manipulating the shape of the bottle enhances choice likelihood and

product attitude but when consumers have a hedonic shopping goal, package shape does not affect these outcomes (Van Ooijen et al., 2017).

Female bodies can be classified into one of the five body types namely: round, inverted triangle, triangle, hourglass, and rectangle. By following the same "thin is healthy" principle a round body type is associated with unhealthy, and a rectangle body is associated with healthy. Therefore, illustrating a slim (rectangle) versus a curvy (round) body on a hard seltzer can must yield the same results as manipulating the shape of the can. Hence, the following hypotheses are formulated:

H1a: *A product package with a slim body illustration is perceived as healthier compared to a product package with a curvy body illustration.*

H1b: *A product package with a slim body illustration is expected to have a higher digestibility compared to a product package with a curvy body illustration.*

H1c: *A product package with a slim body illustration is expected to taste more natural compared to a product package with a curvy body illustration.*

H1d: *A product package with a slim body illustration has a higher purchase intention compared to a product package with a curvy body illustration.*

2.4 Position of nutrition facts

The concept of heaviness as opposed to lightness can be positioned along the vertical axis. Deng & Kahn (2009) found that images placed at the bottom of a product packaging are perceived to be heavier, as opposed to images placed at the top which are perceived to be lighter. The idea behind it is that heavy objects are stuck to the ground, while light objects such as balloons rise upwards. Hence, for products where weight is a positive attribute, packaging with the image placed at the bottom is preferred. For products where heaviness is a negative attribute, packages with the image placed at the top are preferred. This implies there is no general preference for the top or bottom position, but that the placement of the image should be determined by the valence assigned to heaviness (Deng & Kahn, 2009). An example of the concept of heaviness as opposed to lightness in the beverage industry is Carlsberg Elephant beer. On a few packages, the label of the brand is positioned at the bottom of the bottle since Elephant is considered a heavy beer with an alcohol by volume of 7.5%. In this way, the package design matches the symbolic meaning associated with the product (Machiels et al., 2019).

For the product packaging of hard seltzer, an image of the nutrition content should be positioned at the top since heaviness is seen as a negative attribute. The word “heavy” is often used to describe fatty and unhealthy food, while the word “light” is used for healthy food because it is easily digested and does not feel heavy on the stomach (Karnal et al., 2016). Hence, the following hypotheses are formulated:

H2a: *A product package with the nutrition facts positioned at the top is perceived as healthier compared to a product package with the nutrition facts positioned at the bottom.*

H2b: *A product package with the nutrition facts positioned at the top is expected to have a higher digestibility compared to a product package with the nutrition facts positioned at the bottom.*

H2c: *A product package with the nutrition facts positioned at the top has a more natural taste compared to a product package with the nutrition facts positioned at the bottom.*

H2d: *A product package with the nutrition facts positioned at the top has a higher purchase intention compared to a product package with the nutrition facts positioned at the bottom.*

2.5 Outline colour saturation

Apart from colour hue, colour saturation is an important dimension that is used to affect consumers' evaluation of a product's healthiness. Colour saturation refers to the amount of white light mixed with the hue (Labrecque et al., 2013). Mead & Richerson (2018) studied the relationship between high and low saturation levels on the perceived healthfulness of potato crisps and a chocolate snack bar. Results indicate that consumers appear to perceive foods in muted, low colour-saturated packaging to be more healthful than products in vivid, highly colour-saturated food packaging. In a similar line, Tijssen et al. (2017) also argue a product is perceived as healthier in muted low-coloured packaging. However, highly colour-saturated packages are seen as more attractive and tastier. On contrary, Kunz et al. (2020) found that vivid, highly colour-saturated packages are evaluated as both healthier and tastier since these packages appear fresher to consumers than products in muted, less colour-saturated packages. Nevertheless, the influence of colour saturation was stronger for tastiness perceptions than for healthiness perceptions (Kunz et al, 2020).

All colours differ in perceived heaviness since each colour has a specific associated weight. Studies that explored the weight-colour relationship reveal that red and blue represent heavy colours, whereas orange and yellow represent light colours (Walker et al., 2010; Pinkerton & Humphrey, 1974 as cited by Karnal et al., 2016). Therefore, the influence of colour saturation on health perceptions may be explained by the associated weight of colour. Lighter tones may signal a product is less heavy and in turn healthier compared to a darker tone (Mai et al., 2016).

In typeface design, weight is an essential element that includes features such as heavy and light, short and fat, and tall and thin (Henderson et al., 2004). Given these features, typefaces should also be able to impact the perception of heaviness. A delicate typeface should symbolize light and thin, whereas a bold typeface should symbolize heavy and fat (Karnal et al., 2016). The results of the study from Karnal et al. (2016) indicate that only individuals with a strong health-promotion focus evaluate a soft drink with a less heavy typeface as healthy and a soft drink with a heavier typeface as unhealthy.

By adapting the typeface with a highly saturated outlining in one condition, it must also influence perceptions of heaviness, which in turn spill over to health perceptions. A highly saturated outlining of the typeface must symbolize a bold and 'heavy' typeface and a low saturated typeface outlining must symbolize a delicate and 'light' typeface. Hence, the following hypotheses are formulated:

H3a: *A product package with low colour-saturated typeface outlining is perceived as healthier compared to a product package with high colour-saturated typeface outlining*.

H3b: *A product package with low colour-saturated typeface outlining is expected to have a higher digestibility compared to a product package with high colour-saturated typeface outlining.*

H3c: *A product package with low colour-saturated typeface outlining has a more natural taste compared to a product package with high colour-saturated typeface outlining.*

H3d: *A product package with low colour-saturated typeface outlining has a higher purchase intention compared to a product package with high colour-saturated typeface outlining.*

2.6 Congruency effects

Consumers are exposed to a large number of products; however, consumers have limited resources in terms of time, cognitive capacity, or motivation to devote to all these exposures. Thus, it is important for researchers to explore how product design can impact consumers on an automatic level that is not based on resource availability (Pleyers, 2021).

Former studies have established that design elements such as shape, visual imagery, colour, and typeface transfer symbolic meaning (Deng & Kahn, 2009; Velasco et al., 2015; Mai et al., 2016; Karnal et al., 2016; Van Ooijen et al., 2017). Apart from demonstrating the importance of symbolic meaning from an individual design element, studies also reveal the importance of congruency between more elements (Lee & Labroo, 2004; Van Rompay & Pruyn, 2011; Fenko et al., 2016). Consumers prefer stimuli that do not require much cognitive processing. Design elements that are in line with the expectations of a product or with the product itself are processed more fluently and are generally evaluated more positively (Spence & Velasco, 2018). Moreover, different design elements that transfer the same symbolic meaning facilitate fluent processing since consumers can make a logical connection between the design elements and the characteristics of the product (Lee & Labroo, 2004).

As an example, Van Rompay & Pruyn (2011) studied the effect of two shape variants and two typeface variants of a fictitious bottled water brand. The two shape variants and two typeface variants were either associated with luxury or casualness. Participants were randomly assigned to one of the four product variants and filled out a questionnaire. Results show positive effects of the congruent conditions (luxury typeface and luxury shape or casual typeface and casual shape) on brand credibility and price expectations (Van Rompay & Pruyn, 2011). In a similar line, Pleyers (2021) investigated the congruence between the shape of a wine and perfume container and the shape of its label. It provides evidence that the shape-congruent product designs (round bottle x round label and angular bottle x angular label) result in more positive affective reactions and higher activation of trust-related perceptions compared to the incongruent product designs (round bottle x angular label and angular bottle x round label). Furthermore, claims about product

quality and functionality are less believable when consumers are not able to develop a clear image of the product due to information ambiguity resulting from meaning inconsistency (Pleyers, 2021).

Former research demonstrates that congruence between the symbolic meaning of design elements most likely leads to positive product evaluations. In this study, the design elements of female body illustration, position of nutrition facts, and outline colour saturation can transfer a collective symbolic meaning regarding the weight of the product which is associated with healthiness. Hence, the following hypothesis is formulated:

H4: *Two congruent design elements (female body illustration/position of nutrition facts/outline colour saturation) will lead to more positive consumer evaluations as opposed to an incongruent combination of two of the design elements.*

2.7 General health interest

General health interest is a scale, developed by Roininen et al. (199), which measures an individual's interest in maintaining a healthy diet. A high score on the scale indicates an individual is health-conscious and will actively seek out for food that will improve or maintain their state of health. These consumers are also willing to accept a loss in pleasantness and tastiness when the food is considered healthy (Roininen et al., 1999; Gould, 2005). Prior research reveals that based on an individual's health consciousness they are more or less sensitive to extrinsic package design cues implying health benefits. Individuals that are interested in maintaining a healthy diet will be more responsive to extrinsic cues that match their shopping goal than consumers that are not interested in following a healthy diet (Karnal et al., 2016; Mai et al., 2016; Van Ooijen et al., 2017). For instance, Deng & Kahn (2009) found that individuals with a salient health goal compared to individuals with no health goal have a lower preference for choosing products with images placed at the bottom of the product packaging. The reason for this is that products with images placed at the bottom of the product packaging are unconsciously viewed as heavy and unhealthy. Furthermore, Mai et al. (2016) found that products in light-coloured packages are viewed as healthy and this effect is strengthened when consumers aspire to live healthily. By contrast, light-coloured packages trigger negative taste perceptions when a healthy lifestyle is less important to consumers. Hence, the following hypotheses are formulated:

H5a: *The effects of the female body illustration are weaker (stronger) when consumers have a low (high) general health interest.*

H5b: *The effects of the position of nutrition facts are weaker (stronger) when consumers have a low (high) general health interest.*

H5c: *The effects of the outline colour saturation are weaker (stronger) when consumers have a low (high) general health interest.*

The proposed research model is presented in Figure 1 and an overview of the formulated hypotheses is presented in Table 1.

Figure 1
Proposed research model.

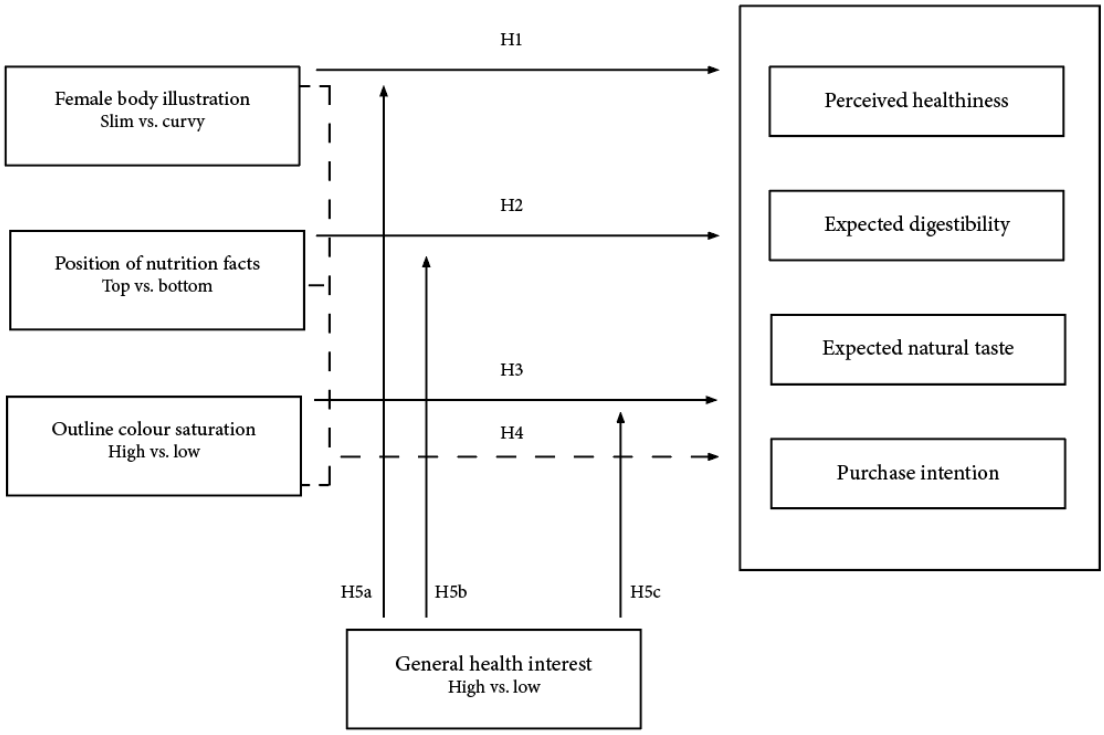


Table 1
Formulated hypotheses.

Number	Hypothesis
H1a	A product package with a slim body illustration is perceived as healthier compared to a product package with a curvy body illustration.
H1b	A product package with a slim body illustration is expected to have a higher digestibility compared to a product package with a curvy body illustration.
H1c	A product package with a slim body illustration is expected to taste more natural compared to a product package with a curvy body illustration.
H1d	A product package with a slim body illustration has a higher purchase intention compared to a product package with a curvy body illustration.
H2a	A product package with the nutrition facts positioned at the top is perceived as healthier compared to a product package with the nutrition facts positioned at the bottom.
H2b	A product package with the nutrition facts positioned at the top is expected to have a higher digestibility compared to a product package with the nutrition facts positioned at the bottom.
H2c	A product package with the nutrition facts positioned at the top has a more natural taste compared to a product package with the nutrition facts positioned at the bottom.
H2d	A product package with the nutrition facts positioned at the top has a higher purchase intention compared to a product package with the nutrition facts positioned at the bottom.
H3a	A product package with low colour-saturated typeface outlining is perceived as healthier compared to a product package with high colour-saturated typeface outlining.
H3b	A product package with low colour-saturated typeface outlining is expected to have a higher digestibility compared to a product package with high colour-saturated typeface outlining.
H3c	A product package with low colour-saturated typeface outlining has a more natural taste compared to a product package with high colour-saturated typeface outlining.
H3d	A product package with low colour-saturated typeface outlining has a higher purchase intention compared to a product package with high colour-saturated typeface outlining.
H4	Two congruent design elements (female body illustration/position of nutrition facts/outline colour saturation) will lead to more positive consumer evaluations as opposed to an incongruent combination of two of the design elements.
H5a	The effects of the female body illustration are weaker (stronger) when consumers have a low (high) general health interest.
H5b	The effects of the position of nutrition facts are weaker (stronger) when consumers have a low (high) general health interest.
H5c	The effects of the outline colour saturation are weaker (stronger) when consumers have a low (high) general health interest.

3. Method preliminary studies

This section first discusses the procedure and results of preliminary study 1. Based on those results the stimuli for the female body illustration were selected. Second, the procedure and results of preliminary study 2 are discussed. This test was conducted to indicate whether the manipulations have the intended effect.

3.1 Preliminary study 1

Before the main study can be performed, a preliminary study was conducted to select a slim and curvy body illustration that is also realistic enough to be on a product packaging of an alcoholic drink. The illustrations were made in Adobe Illustrator by using a licence-free image of a body illustration, silhouette, or drawing from the internet. The lines of the image were traced and then adjusted to create variations in body size.

3.1.1 Procedure preliminary study 1

In an online questionnaire created in Qualtrics, participants were first exposed to six sets of body illustrations as presented in Figure 2. One illustration represents a slim body and the other represents a more curvy body. The participants had to rank the illustrations from most suitable for a product packaging of an alcoholic drink to least suitable for a product packaging of an alcoholic drink. Next, the participants were exposed to the six illustrations separately, only now there are not two variants but five variants differing in body size. As an example, the variations of illustration one is shown in Figure 3. The participants must select which illustration represents a curvy and slim body the best and is also suitable for on a product packaging of an alcoholic drink. Furthermore, demographic questions were asked and questions regarding the participants' alcohol usage. The participants were selected through convenience sampling and approached via WhatsApp. The complete questionnaire can be found in Appendix A.

Figure 2
Six sets of female body illustrations.

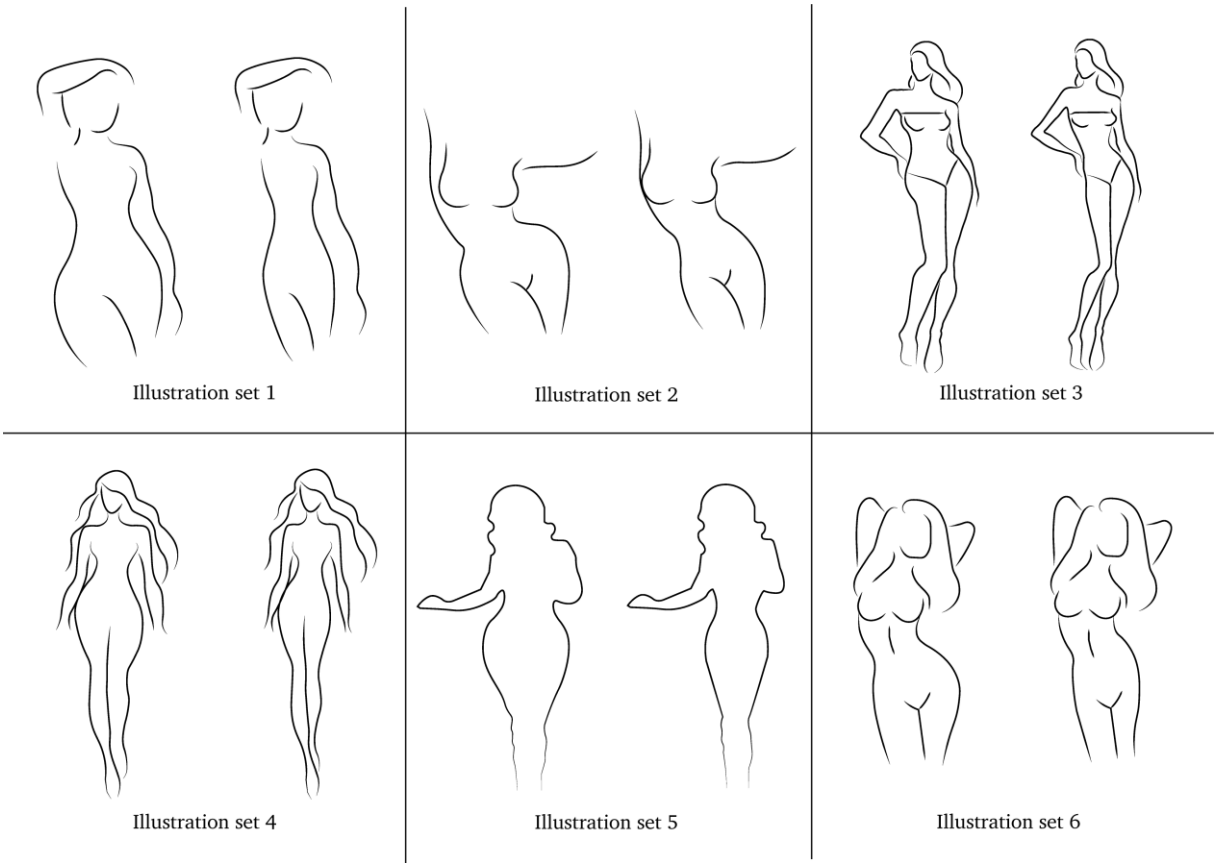
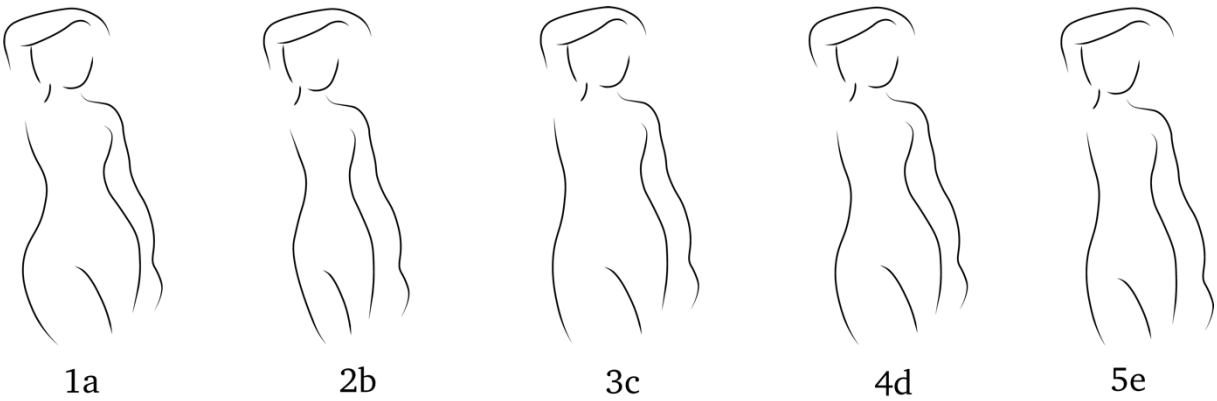


Figure 3
Illustration set 1: female body illustrations varying in size.



3.1.2 Results preliminary study 1

Fifteen people participated in the preliminary study (N = 15), all of whom were women. The participants were between 22 and 28 years old (M = 24.2, SD = 1.93). To determine which illustration is the most suitable for a product packaging of an alcoholic drink, the participants had to compare six sets of illustrations to each other by placing them in order of preference. The participants' first choice receives six points, the second choice receives five points, and the third choice receives four points. The total was calculated for each illustration, the illustration with the highest score is the most suitable for product packaging. As shown in Table 2 participants found illustration set 5 the most suitable for product packaging.

Table 2
Preliminary study 1: ranking question scores.

	First (6 points)	**Second (5 points)**	**Third (4 points)**	**Total**
Illustration set 1	6	25	16	47
Illustration set 2	0	10	16	26
Illustration set 3	24	10	4	38
Illustration set 4	6	20	12	38
Illustration set 5	**42**	**10**	**0**	**52**
Illustration set 6	12	0	12	24

Next, for each illustration (set) participants had to choose between five illustrations varying in body size which illustration represents a curvy body type and a slim body type the best and is also suitable for on the product packaging of an alcoholic drink. As presented in Table 3 from illustration set 5, 46.7% of the participants found that illustration 5e represents a curvy body type the best and as shown in Table 4, 66.7% found that illustration 2b represents a slim body type the best. Therefore, from illustration set 5, illustrations 2b and 5e will be the stimuli in the main study. The selected body illustrations are presented in Figure 4.

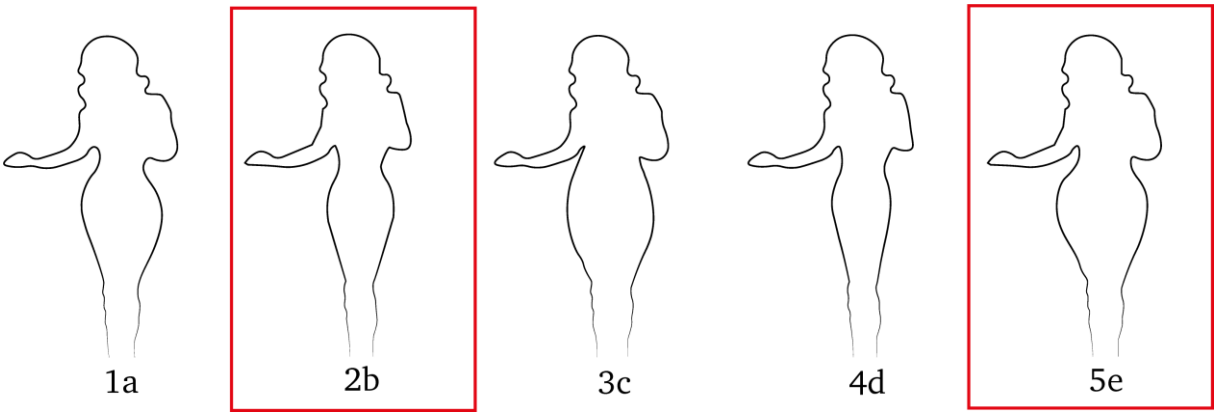
Table 3
Preliminary study 1: Illustration that represents a curvy body type the best.

Curvy	%	n
Illustration 1a	26.7	4
Illustration 2b	0.0	0
Illustration 3c	26.7	4
Illustration 4d	0.0	0
Illustration 5e	**46.7**	**7**
Total	100	15

Table 4
Preliminary study 1: Illustration that represents a slim body type the best.

Slim	%	n
Illustration 1a	13.3	2
Illustration 2b	**66.7**	**10**
Illustration 3c	0.0	0
Illustration 4d	20.0	3
Illustration 5e	0.0	0
Total	100	15

Figure 4
Preliminary study 1: selected body illustrations.



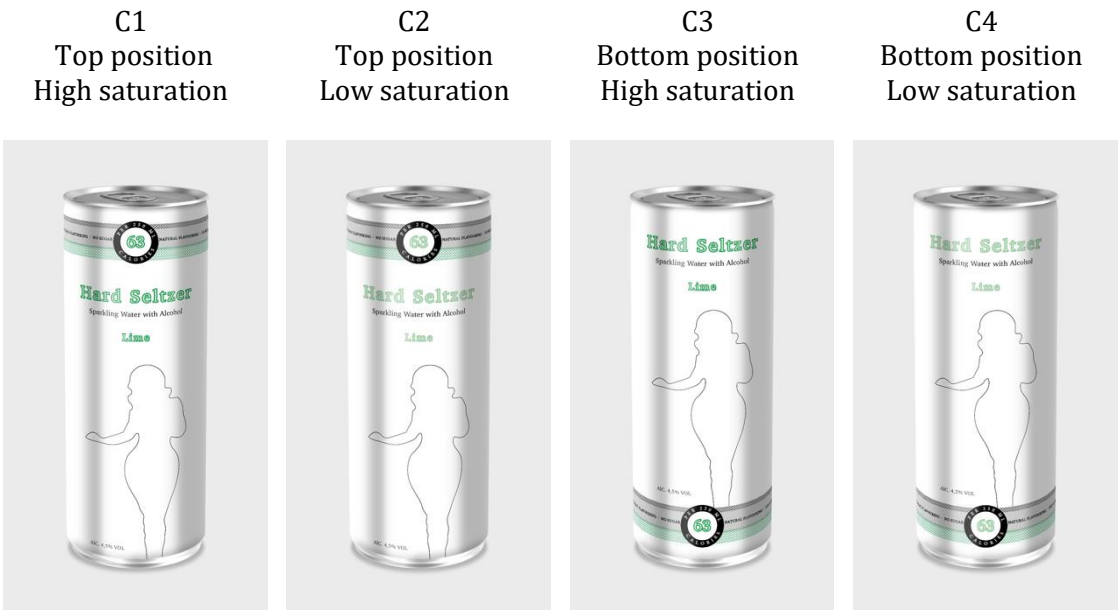
3.2 Preliminary study 2

Based on the first preliminary study a slim and curvy body illustration was selected for on the packaging of a hard seltzer can. The second preliminary study was conducted to investigate whether the position of nutrition facts and outline colour saturation manipulations were strong enough to affect the heaviness perception of the drink. When the nutrition facts are placed at the bottom, the can must be perceived to be heavier, compared to when the nutrition facts are placed at the top (Deng & Kahn, 2009). When the outlining of the typeface has a high colour-saturation, the can must be perceived heavier than when the outline colour-saturation is low (Mai et al., 2016). Moreover, the second preliminary study also determined whether the designs of the hard seltzer can are attractive and realistic.

3.2.1 Procedure preliminary study 2

In an online questionnaire created in Qualtrics, participants were exposed to four designs of a hard seltzer can separately. The female body illustration was the same in all designs, but the position of nutrition facts (top/bottom) and outline colour saturation (low/high) were different. In Figure 5 the four conditions are presented. On a scale from one to five participants had to indicate how heavy they perceived the drink in the hard seltzer can and how realistic and attractive they found the design of the hard seltzer can. Moreover, demographic questions were asked and questions regarding the participants' alcohol usage. The participants were selected through convenience sampling and approached via WhatsApp. The complete questionnaire can be found in Appendix B.

Figure 5
Preliminary study 2: designs four conditions.



3.2.2 Results preliminary study 2

Ten people participated in the second preliminary study (N = 10), all of whom were women. The participants were between 22 and 28 years old (M = 24.7, SD = 2.06) and were the same participants who also participated in preliminary study 1. To determine whether the outline colour saturation manipulation is strong enough to affect the heaviness perception, the results of conditions 1 and 2 and 3 and 4 were compared. Participants perceive the cans with high colour-saturated outlining slightly heavier than low colour-saturated outlining. To determine whether the position of nutrition facts manipulation is strong enough to affect the heaviness perception, the results of conditions 1 and 3 and 2 and 4 were compared. Participants perceive the cans with the nutrition facts at the bottom as slightly heavier than when the nutrition facts are positioned at the top. In Table 5 the heaviness perception per condition is presented. Even though the differences are small due to the size of the sample, the manipulations have the intended effect. As shown in Table 6, most participants found the designs of the hard seltzer cans realistic. Participants did not have a strong opinion about the attractiveness of the cans, this is somewhat in the middle, as shown in Table 7.

Overall, the manipulations have the intended effect and there are no major outliers in attractiveness and realism. Therefore, these designs will be tested in the main study.

Table 5
Preliminary study 2: heaviness perception per condition in %.

	Heavy				**Light**
Condition	1	2	3	4	5
C1	10	40	50	0	0
C2	0	40	40	20	0
C3	10	60	30	0	0
C4	10	40	40	10	0

Table 6
Preliminary study 2: realistic perception per condition in %.

	Unrealistic				**Realistic**
Condition	1	2	3	4	5
C1	0	20	0	70	10
C2	0	10	20	70	0
C3	0	10	40	50	0
C4	0	10	10	80	0

Table 7
Preliminary study 2: attractiveness perception per condition in %.

	Unattractive				**Attractive**
Condition	1	2	3	4	5
C1	0	20	40	40	0
C2	0	30	30	40	0
C3	0	20	50	30	0
C4	0	10	60	30	0

4. Main study

This section first presents the designs of the experimental conditions. Second, the stages participants go through while filling in the questionnaire is described. Third, the data collection procedure is described, and the characteristic of the participants is presented. Fourth, the statements of the questionnaire are justified, and an overview is presented. At last, the data analysis procedure is described.

4.1 Experimental research conditions

This study aims to investigate to what extent three design elements namely, female body illustration, position of nutrition facts, and outline colour saturation on the packaging of a hard seltzer can affect the perceived healthiness, expected digestibility, expected natural taste, and purchase intention. A 2 (female body illustration: slim vs. curvy) x 2 (position of nutrition facts: top vs. bottom) x 2 (outline colour saturation: high vs. low) experimental design was conducted. Consequently, eight conditions represent the same product but differentiate in design elements. An overview of the eight conditions is presented in Table 8.

Table 8
Experimental research conditions.

	Curvy body illustration		Slim body illustration	
	Top position	Bottom position	Top position	Bottom position
High outline colour saturation	Condition 1	Condition 3	Condition 5	Condition 7
Low outline colour saturation	Condition 2	Condition 4	Condition 6	Condition 8

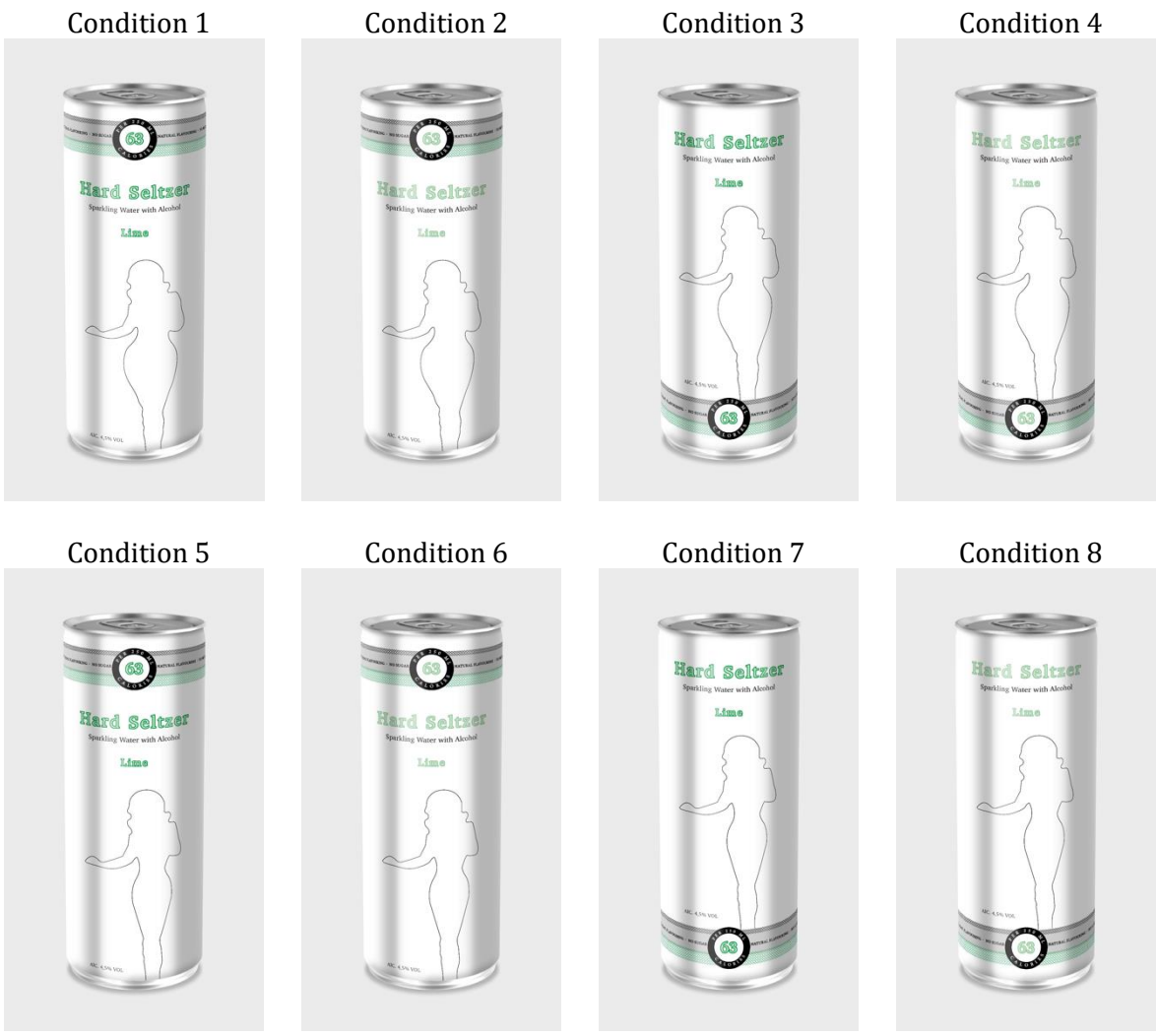
4.2 Stimulus materials

To create a realistic packaging, the volume, alcohol percentage, the number of calories, and other nutritional information on the package designs are from Stëlz hard seltzer, a real hard seltzer brand in The Netherlands. The colour green in combination with the flavour of lime is chosen since consumers match food and drink in green-coloured packaging to a lime flavour (Zampini et al., 2007). The product package has no brand name only 'hard seltzer' is written on the front of the package. There is no brand name because consumers may hold negative or positive attitudes toward a known or fictitious brand which may influence the results of this study.

The stimuli for the female body illustrations were selected based on preliminary study 1. A clear and legible typeface has been chosen as the stimuli for the outline colour saturation. The weight of the outlining of the typeface is either four points or one point depending on the size of the typeface. The main colour of the typeface in all conditions is 25% saturated green. In the condition where the colour of the outlining is highly saturated, the outlining of the typeface is 100% saturated green. In the condition where the colour saturation is low, the outlining of the typeface is 50% saturated green. A design of green and grey coloured areas and patterns with a white and black circle was created for the position of nutrition facts stimuli. The circle contains the number of calories per 250 ml and in the grey area, the nutrition facts 'natural flavouring' and 'no sugar' are written. In preliminary study 2, the stimuli for position of nutrition facts and outline colour saturation were tested to indicate whether the manipulations have the intended effect, and the overall design was also assessed.

The eight different package designs were made in 2D by using Adobe InDesign. To create a can in 3D, the 2D images were uploaded to a soda can mock-up generator from mediamodifer.com. In Figure 6 the designs of the eight conditions are presented.

Figure 6
Experimental conditions: final package designs.



4.3 Procedure

Before collecting the data, the study was approved by the Ethics Committee of the faculty BMS which means the research is ethically responsible. The data was collected through convenience sampling and snowball sampling, as well as via the BMS faculty's Test Subject Pool system SONA and student survey exchange websites. Participants were approached via social media platforms to participate in the study and to transfer the link of the questionnaire to their social network. Moreover, participants were recruited by uploading the questionnaire to the BMS faculty's Test Subject Pool system SONA. This is a system that helps researchers get enough responses and at the same time gives students the opportunity to learn about the nature of different studies. At last, participants were recruited by uploading the questionnaire to student survey exchange websites namely SurveyCircle.com and SurveySwap.com. The idea behind these websites is that researchers will receive responses on their survey by taking part in other surveys.

The online questionnaire was created in Qualtrics and formulated in Dutch since the target group are Dutch women. The complete questionnaire can be found in Appendix C. Before starting the questionnaire participants had to give their consent to participate in the study. Following were two filter questions regarding the participant's age and gender to determine whether the participant belongs to the target group. After the filter questions, a short description of hard seltzer was presented. Next, participants were randomly assigned to one of the eight conditions and the participants were presented with an image of a hard seltzer can. Consequently, the participants had to answer four blocks with statements. The first block contains statements regarding the perceived healthiness following are the expected digestibility, expected natural taste, purchase intention, and general health interest. After answering the statements, participants had to answer three questions that were a check to determine whether the manipulations have the intended effect. At last, there were a few questions regarding the participant's alcohol usage and familiarity with hard seltzer. Before ending the questionnaire, the participants were informed that the study is about a fictitious hard seltzer brand, and the participants had the opportunity to leave a comment.

4.4 Participants

Dutch women between 18 and 40 years old were allowed to participate in this study. The age range of 18 to 40 was chosen since hard seltzer is designed and marketed for millennials and generation Z. Men may perceive a female body illustration different compared to women. Also, women are more interested in healthy eating and are more concerned about their bodies than men (Yarar et al., 2019). Therefore, to create a homogeneous sample, only women were allowed to participate. The final dataset consists of 262 valid responses. All the participants were female and were between 18 and 39 years old (M = 23.74, SD = 3.02). A total of 399 people started filling in the questionnaire. However, due to the target group criteria (N = 42) and unfinished surveys (N = 71), 113 participants had to be excluded from the dataset. Moreover, participants who completed the questionnaire in less than 2.5 minutes (N = 19) or took longer than half an hour (N = 5) were also excluded from the dataset. As determined by a one-way analysis of variance there was a significant difference in age among at least one of the eight conditions ($F(7, 254) = 2.75$, p = .009). However, the Post Hoc test reveals there are no significant differences between the conditions. A small majority of the participants are not familiar with hard seltzer (53.1%) and most of the participants have never drunk hard seltzer before (63.7%). A Chi-square test was performed to determine whether there were differences between the participant's familiarity with hard seltzer and the participant's consumption of hard seltzer. The test reveals there were no significant differences between the familiarity of hard seltzer ($\chi 2(7, N = 262) = 5.56$, p = .59) and the consumption of hard seltzer ($\chi 2(7, N = 262) = 4.37$, p = .74) among the eight conditions. Table 9 provides an overview of the characteristics of the participants per condition.

Table 9
Characteristics of the participants per condition.

		Age		Familiarity hard seltzer in %		Consumed hard seltzer in %	
Condition	***n***	***M***	***SD***	**Yes**	**No**	**Yes**	**No**
1	32	23.34	2.21	46.9	53.1	35.7	64.3
2	35	24.66	3.43	57.1	42.9	46.9	53.1
3	36	22.97	1.75	41.7	58.3	34.3	65.7
4	32	23.81	2.33	50.0	50.0	43.8	56.3
5	32	22.69	1.94	56.3	43.8	36.7	63.3
6	33	23.06	2.47	48.5	51.5	35.5	64.5
7	33	24.85	4.44	36.4	63.6	25.0	75.0
8	29	24.59	3.98	37.9	62.1	32.1	67.9
Total	**262**	**23.74**	**3.02**	**46.9**	**53.1**	**36.3**	**63.7**

$^{***}p < .01$, $^{**}p < .05$, $^{*}p < .1$

4.5 Measures

The online questionnaire was developed to measure the effect of the independent variables (female body illustration, position of nutrition facts, outline colour saturation) on the dependent variables (perceived healthiness, expected digestibility, expected natural taste, purchase intention), and the effect of the general health interest as a moderator. In Table 10, the statements of each construct with the corresponding Cronbach's alpha value are presented. The Cronbach's alpha measures the internal consistency of the statements of a construct. All constructs are consistent and reliable since the Cronbach's alpha values are higher than 0.7. The statements were measured with a 5-point Likert scale, ranging from strongly agree to strongly disagree. Most statements are adopted from former studies and reformulated to the context of this research. The detailed operationalisation of the constructs is described in the following paragraphs.

General health interest. The general health interest acts as a moderator and is measured with eight statements. The statements are reformulated from Fenko et al. (2016) to the context of this research by replacing 'food' with 'drink' or adding the word 'drink'. For instance, the original statement "the healthiness of food has little impact on my food choices" is reformulated to "the healthiness of food and drink has little impact on my product choices". The Cronbach's alpha for this construct is 0.78.

Perceived healthiness. The construct perceived healthiness is measured with nine statements. Five statements are reformulated from Fenko et al. (2016) by replacing the word 'product' with 'drink'. Two questions from Provencher & Herman (2009) are reformulated into statements and the word 'snacks' is replaced for 'drink'. As an example, the original question "do you consider this snack as appropriate in a healthy menu?" is reformulated to the statement "I consider this drink as appropriate in a healthy menu". The last two statements were adopted from Mai et al. (2016). The Cronbach's alpha for this construct is 0.82.

Expected digestibility. The construct expected digestibility is measured with seven statements. The statements are newly formulated and measure to what extent the drink is easy to digest. The Cronbach's alpha for this construct is 0.73.

Expected natural taste. The construct expected natural taste is measured with five statements that are adopted from Aydoğdu (2020) and Vollenbroek (2021). The statements measure to what extent the drink is expected to taste natural, pure, artificial, chemical, and authentic. The Cronbach's alpha for this construct is 0.81.

Purchase intention. The construct purchase intention is measured with six statements. Four statements from Baker and Churchill (1977) are reformulated to the context of this research by replacing the word 'product' with 'drink'. For instance, the original statement "I would be willing to buy this product" is changed to "I would be willing to buy this drink". Two statements are newly formulated. The Cronbach's alpha for this construct is 0.89.

Table 10
Statements questionnaire.

Construct	Statements	α
General health interest	1. The healthiness of food and drink has little impact on my product choices (reversed). 2. I am very particular about the healthiness of food and drink I consume. 3. I eat and drink what I like and do not worry much about the healthiness of food and drink (reversed). 4. It is important for me that my diet is low in fat. 5. I always follow a healthy and balanced diet. 6. It is important for me that my daily diet contains many vitamins and minerals. 7. The healthiness of snacks makes no difference for me (reversed). 8. I do not avoid food and drink, even if they may raise my cholesterol (reversed).	0.78
Perceived healthiness	1. I expect the drink to be healthy. 2. I would consider the drink as good for me. 3. The drink does not look healthy (reversed). 4. I have an impression that this product is not healthy (reversed). 5. This drink looks healthier than similar drinks. 6. If I were drinking this drink regularly, I would gain weight (reversed). 7. I consider this drink as appropriate in a healthy menu. 8. This drink does not help me to stay fit (reversed). 9. This drink helps me to stay slim.	0.82
Expected digestibility	1. I expect the drink contains many calories (reversed). 2. I expect the drink contains much sugar (reversed). 3. I expect the drink contains much artificial sweetener (reversed). 4. I expect the drink to cause bloating (reversed). 5. I expect the drink will not cause bloating. 6. I expect the drink will cause a full feeling (reversed). 7. I expect the drink is easy to digest.	0.73
Expected natural taste	1. I expect the drink tastes natural. 2. I expect the drink tastes artificial (reversed). 3. I expect the drink tastes pure. 4. I expect the drink tastes chemical (reversed). 5. I expect the drink tastes authentic.	0.81
Purchase intention	1. I would not like to try this drink (reversed). 2. I would consider buying this drink in the supermarket. 3. I would actively seek out to buy this drink in the supermarket. 4. I would not be willing to buy this drink (reversed). 5. I would drink this drink at a festival. 6. I would order this drink on a terrace.	0.89

4.6 Analysis

After excluding the invalid participants from the dataset, the negative statements were recoded into a new variable. New variables containing the mean score of the dependent variables were also created. Manually, the independent variables were created, and participants were assigned to one of the groups based on the condition they were exposed to. Based on the median of the moderator general health interest, participants were classified into high or low general health interest. The independent two samples t-test indicates both high (M = 3.84, SD = .33) and low (M = 2.91, SD = .38) general health interest groups were significantly different (t(260) = 20.91, p = .017). Outlier analysis was conducted to detect outliers in the dataset which can have a major impact on the analysis. Results reveal there were no outliers in the dataset. After preparing the dataset, a univariate analysis of variance (ANOVA) was conducted to analyse the main and interaction effects of the independent variables and the moderator on the dependent variables. A Pairwise Comparisons test was conducted to indicate whether the conditions were significantly different from each other. An alpha level smaller or equal to 0.05 indicates a significant effect and an alpha level smaller or equal to 0.1 indicates a marginally significant effect.

4.6.1 Manipulation check

To test whether the participants perceived the design elements as intended they were asked to indicate on a scale from one to five (1= light, 5 = heavy) how heavy they find the female body illustration, the banner with the nutrition facts, and the typeface on the hard seltzer can. To test if there was a significant difference in weight perceptions an independent two samples t-test was conducted. For the female body illustration, the test shows there was no significant difference between a slim body illustration (M = 2.75, SD = 1.16) and a curvy body illustration (M = 2.92, SD = 1.08); t(260) = -1.23, p = .344. For the banner with the nutrition facts, the test shows there was also no significant difference between a banner positioned at the top (M = 2.53, SD = 1.09) or at the bottom (M = 2.63, SD = 1.12); t(260) = -.74, p = .847. For the typeface, the test shows there was a significant difference between high colour-saturated typeface outlining (M = 2.36, SD = .83) and low colour-saturated typeface outlining (M = 2.14, SD = .73); t(260) = 2.28, p = .009. Hence, the participants only consciously perceived the outline colour saturation manipulation as intended.

5. Results

In this section, the results of the main study are described. Univariate analysis of variance (ANOVA) was conducted to test whether the design elements of the independent variables and moderator affect the dependent variables. Following, the Pairwise Comparisons was conducted to test whether there were significant differences between the conditions.

5.1 Perceived healthiness

The results of the ANOVA test showed there were no significant main effects of female body illustration, position of nutrition facts, and outline colour saturation on the perceived healthiness. For the moderator, general health interest, there was also no significant main effect. Table 11 provides an overview of the mean scores of all the independent variables on the dependent variables. Table 12 provides an overview of the ANOVA test results of the perceived healthiness.

Table 11
Mean and standard deviation of the independent variables on the dependent variables.

	Female body illustration				**Position of nutrition facts**				**Outline colour saturation**				**General health interest**			
	Slim		**Curvy**		**Top**		**Bottom**		**High**		**Low**		**High**		**Low**	
	M	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***
PH[a]	2.58	.58	2.62	.57	2.61	.56	2.59	.6	2.60	.58	2.60	.58	2.58	0.62	2.62	0.54
ED[b]	3.15	.65	3.11	.56	3.14	.6	3.13	.61	3.12	.58	3.15	.63	3.08	0.65	3.18	0.56
ENT[c]	2.83	.68	2.78	.76	2.80	.72	2.80	.72	2.85	.73	2.75	.71	2.73*	0.76	2.87*	0.68
PI[d]	3.05	.93	3.14	.83	3.16	.88	3.03	.88	3.06	.88	3.08	.84	3.12	0.92	3.08	0.84

[a]Perceived healthiness, [b]Expected digestibility, [c]Expected natural taste, [d]Purchase intention.
*** $p < .01$, ** $p < .05$, * $p < .1$

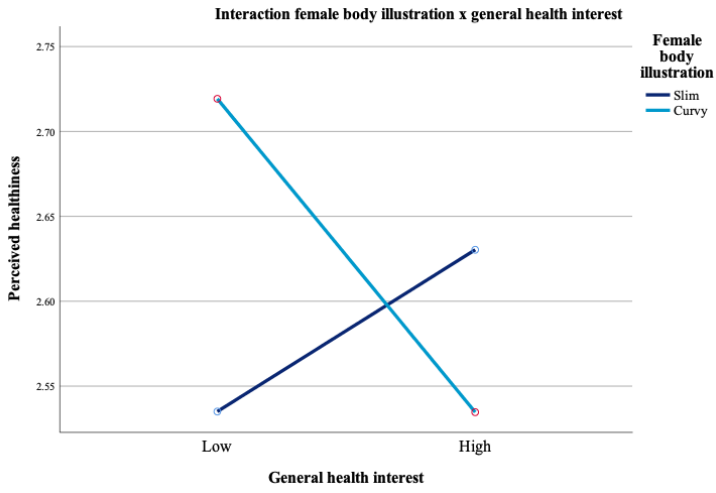
Table 12
ANOVA test results on the perceived healthiness.

Independent variables	*F*	*p*	df
Female body illustration	.38	.540	1
Position of nutrition facts	.15	.701	1
Outline colour saturation	.13	.724	1
General health interest	.38	.537	1
Female body illustration x position of nutrition facts	3.28	.071*	1
Female body illustration x outline colour saturation	1.95	.164	1
Female body illustration x general health interest	3.75	.054**	1
Position of nutrition facts x outline colour saturation	3.11	.079*	1
Position of nutrition facts x general health interest	.03	.866	1
Outline colour saturation x general health interest	.47	.495	1

*** $p < .01$, ** $p < .05$, * $p < .1$

A significant interaction effect was found between female body illustration and general health interest ($F(1,246) = 3.75$, $p = .054$). The plot of this interaction effect can be found in Figure 7. For the participants with low general health interest, the Pairwise Comparisons reveal that a hard seltzer can with a curvy body illustration is considered as healthier compared to a hard seltzer can with a slim body illustration ($M = 2.71$, $SD = .55$ versus $M = 2.53$, $SD = .52$; $p = 0.078$). On the other hand, the Pairwise comparisons reveal there is no significant difference between a hard seltzer can with a slim body illustration ($M = 2.63$, $SD = .66$) and a hard seltzer can with a curvy body illustration ($M = 2.53$, $SD = .59$), for participants with high general health interest ($p = 0.379$).

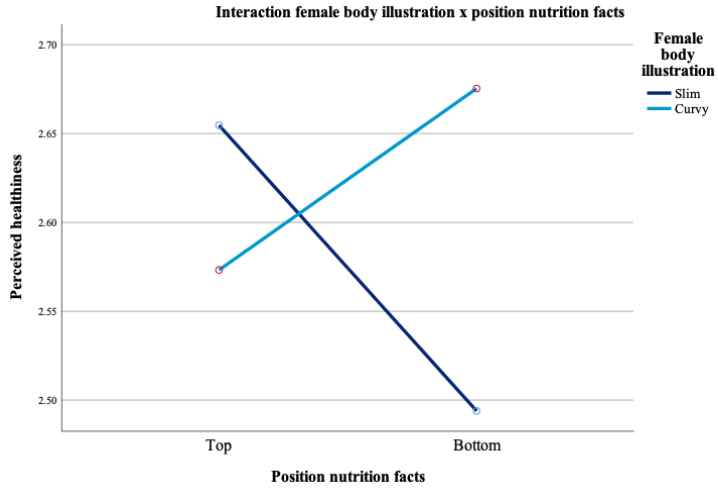
Figure 7
Female body illustration x general health interest on the perceived healthiness.



A marginally significant interaction effect was found between female body illustration and position of nutrition facts ($F(1,246) = 3.28$, $p = .071$). The plot of this interaction effect can be found in Figure 8. A hard seltzer can with the nutrition facts positioned at the bottom and with a curvy body illustration was considered slightly healthier ($M = 2.67$, $SD = .61$) compared to a hard seltzer can with the nutrition facts positioned at the top and with a slim body illustration ($M = 2.65$, $SD = .59$). The Pairwise Comparisons reveal there is a marginally significant difference between a curvy and slim body illustration when the nutrition facts are positioned at the bottom ($p = 0.088$). However, when the nutrition facts are positioned at the top there is no significant difference between a curvy and slim body illustration ($p = 0.422$).

Figure 8

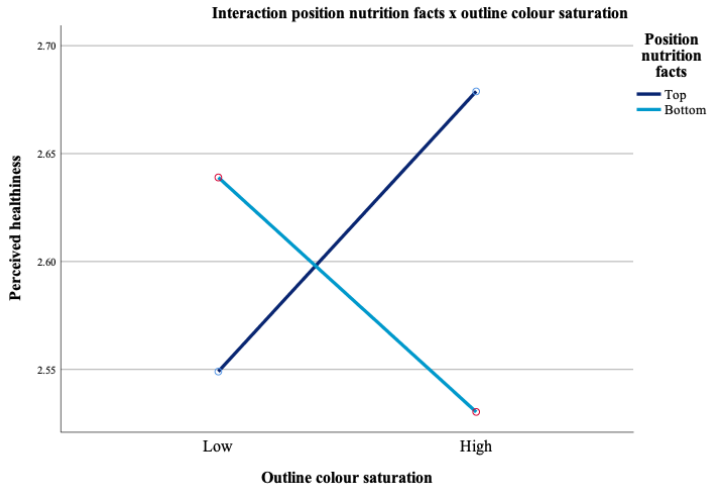
Female body illustration x position of nutrition facts on the perceived healthiness.



Another marginally significant interaction effect was found between position of nutrition facts and outline colour saturation ($F(1,246) = 3.11$, $p = .079$). The plot of this interaction effect can be found in Figure 9. A hard seltzer can with the nutrition facts positioned at the top and with high outline colour-saturation was considered the healthiest ($M = 2.68$, $SD = .55$). However, the Pairwise Comparisons reveal there is no significant difference between high and low colour-saturated outlining when the nutrition facts are positioned at the top ($p = 0.199$). When the nutrition facts are positioned at the bottom the Pairwise Comparisons reveal there is also no significant difference between high and low colour-saturated outlining ($p = 0.258$).

Figure 9

Position of nutrition facts x outline colour saturation on the perceived healthiness.



5.2 Expected digestibility

The results of the ANOVA test showed there were no significant main effects of female body illustration, position of nutrition facts, and outline colour saturation on the expected digestibility. For the moderator, general health interest, there was also no significant main effect. Table 13 provides an overview of the results of the ANOVA test.

Table 13
ANOVA test results on the expected digestibility.

Independent variables	***F***	***p***	**df**
Female body illustration	.31	.578	1
Position of nutrition facts	.00	.980	1
Outline colour saturation	.04	.848	1
General health interest	1.97	.162	1
Female body illustration x position of nutrition facts	3.85	.051**	1
Female body illustration x outline colour saturation	.14	.710	1
Female body illustration x general health interest	2.87	.092*	1
Position of nutrition facts x outline colour saturation	1.08	.300	1
Position of nutrition facts x general health interest	.08	.783	1
Outline colour saturation x general health interest	1.34	.249	1

*** $p < .01$, ** $p < .05$, * $p < .1$

A significant interaction effect was found between female body illustration and position of nutrition facts ($F(1,246) = 3.85$, $p = .051$). A plot of this interaction can be found in Figure 10. A hard seltzer can with the nutrition facts positioned at the top and with a slim body illustration ($M = 3.23$, $SD = .64$) was expected to be the easier to digest compared to a hard seltzer can with the nutrition facts positioned at the bottom and with a curvy body illustration ($M = 3.18$, $SD = .56$). The Pairwise Comparisons reveal that when the nutrition facts are positioned at the top there is a marginally significant difference between a slim and curvy body illustration ($p = 0.084$). However, when the nutrition facts are positioned at the bottom there is no significant difference between a slim and curvy body illustration ($p = 0.302$).

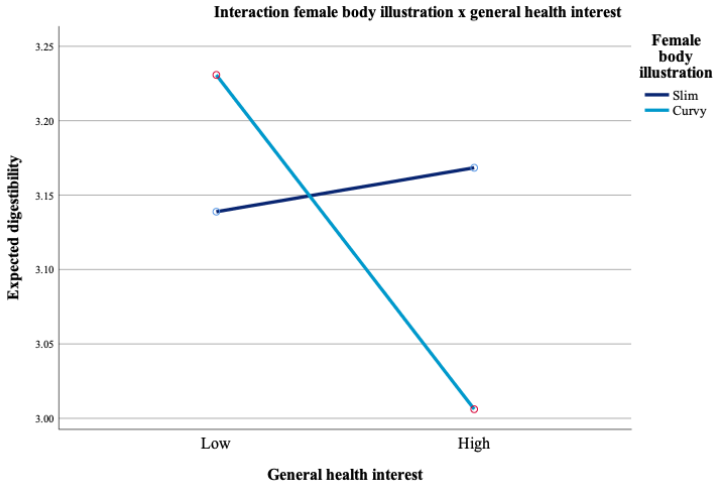
Figure 10

Female body illustration x position of nutrition facts on the expected digestibility.

A marginally significant interaction effect was found between female body illustration and general health interest ($F(1,246) = 2.87$, $p = .071$). The plot of this interaction can be found in Figure 11. Participants with low general health interest consider a hard seltzer can with a curvy body illustration ($M = 3.23$, $SD = .53$) as easier to digest compared to a hard seltzer can with a slim body illustration ($M = 3.14$, $SD = .57$). However, for participants with low general health interest, the Pairwise Comparisons reveal there is no significant difference between a slim and curvy body illustration ($p = 0.134$). Participants with high general health interest consider a hard seltzer can with a slim body illustration ($M = 3.17$, $SD = .74$) as easier to digest compared to a hard seltzer can with a curvy body illustration ($M = 3$, $SD = .56$). Nevertheless, for participants with high general health interest, the Pairwise Comparisons also reveal there is no significant difference between a slim and curvy body illustration ($p = 0.374$).

Figure 11

Female body illustration x general health interest on the expected digestibility.



5.3 Expected natural taste

The results of the ANOVA test showed there were no significant main effects of female body illustration, position of nutrition facts, and outline colour saturation on the expected natural taste. However, there was a marginally significant main effect of the moderator general health interest. As presented in table 11, participants with low general health interest expect the drink to taste more natural (M = 2.87, SD = .68) compared to participants with high general health interest (M = 2.73, SD = .76). Moreover, there are no interaction effects found. Table 14 provides an overview of the results of the ANOVA test.

Table 14
ANOVA test results on the expected natural taste.

Independent variables	***F***	***p***	**df**
Female body illustration	.08	.772	1
Position of nutrition facts	.01	.925	1
Outline colour saturation	1.32	.251	1
General health interest	2.77	.097*	1
Female body illustration x position of nutrition facts	.97	.327	1
Female body illustration x outline colour saturation	.09	.764	1
Female body illustration x general health interest	.42	.517	1
Position of nutrition facts x outline colour saturation	2.28	.132	1
Position of nutrition facts x general health interest	.65	.421	1
Outline colour saturation x general health interest	2.60	.108	1

*** $p < .01$, ** $p < .05$, * $p < .1$

5.4 Purchase intention

The results of the ANOVA test showed there were no main effects of female body illustration, position of nutrition facts, and outline colour saturation on the purchase intention. Consequently, there were also no interaction effects found. In Table 15 the ANOVA test results are presented.

Table 15
ANOVA test results on the purchase intention.

Independent variables	***F***	***p***	**df**
Female body illustration	.71	.400	1
Position of nutrition facts	1.55	.214	1
Outline colour saturation	.31	.576	1
General health interest	.06	.810	1
Female body illustration x position of nutrition facts	1.76	.186	1
Female body illustration x outline colour saturation	1.35	.247	1
Female body illustration x general health interest	.03	.853	1
Position of nutrition facts x outline colour saturation	.79	.375	1
Position of nutrition facts x general health interest	1.19	.277	1
Outline colour saturation x general health interest	.28	.596	1

$^{***}p < .01$, $^{**}p < .05$, $^{*}p < .1$

Based on the results, the hypotheses are (partially) supported or rejected. In Table 16 an overview of the (partially) supported or rejected hypotheses is presented.

Table 16
Overview (partially) supported or rejected hypotheses.

Number	Hypothesis	Result
H1a	A product package with a slim body illustration is perceived as healthier compared to a product package with a curvy body illustration.	Rejected
H1b	A product package with a slim body illustration is expected to have a higher digestibility compared to a product package with a curvy body illustration.	Rejected
H1c	A product package with a slim body illustration is expected to taste more natural compared to a product package with a curvy body illustration.	Rejected
H1d	A product package with a slim body illustration has a higher purchase intention compared to a product package with a curvy body illustration.	Rejected
H2a	A product package with the nutrition facts positioned at the top is perceived as healthier compared to a product package with the nutrition facts positioned at the bottom.	Rejected
H2b	A product package with the nutrition facts positioned at the top is expected to have a higher digestibility compared to a product package with the nutrition facts positioned at the bottom.	Rejected
H2c	A product package with the nutrition facts positioned at the top has a more natural taste compared to a product package with the nutrition facts positioned at the bottom.	Rejected
H2d	A product package with the nutrition facts positioned at the top has a higher purchase intention compared to a product package with the nutrition facts positioned at the bottom.	Rejected
H3a	A product package with low colour-saturated typeface outlining is perceived as healthier compared to a product package with high colour-saturated typeface outlining.	Rejected
H3b	A product package with low colour-saturated typeface outlining is expected to have a higher digestibility compared to a product package with high colour-saturated typeface outlining.	Rejected
H3c	A product package with low colour-saturated typeface outlining has a more natural taste compared to a product package with high colour-saturated typeface outlining.	Rejected
H3d	A product package with low colour-saturated typeface outlining has a higher purchase intention compared to a product package with high colour-saturated typeface outlining.	Rejected
H4	Two congruent design elements (female body illustration/position of nutrition facts/outline colour saturation) will lead to more positive consumer evaluations as opposed to an incongruent combination of two of the design elements.	Partially supported
H5a	The effects of the female body illustration are weaker (stronger) when consumers have a low (high) general health interest.	Partially supported
H5b	The effects of the position of nutrition facts are weaker (stronger) when consumers have a low (high) general health interest.	Rejected
H5c	The effects of the outline colour saturation are weaker (stronger) when consumers have a low (high) general health interest.	Rejected

6. Discussion

This section first elaborates on the results of the main study. Second, the implications of this study are described. Third, the limitations and suggestions for future research are described. At last, a conclusion is provided.

6.1 General discussion

Results of this study showed no main effects, however there were a few interaction effects present. Also, the general health interest acts as an important moderator. Results showed a similar interaction effect between female body illustration and general health interest on the perceived healthiness and the expected digestibility. People who are focussed on a healthy lifestyle perceive a hard seltzer can with a slim body illustration as healthier and easier to digest compared to a hard seltzer can with a curvy body illustration. People who are not focussed on a healthy lifestyle perceive a hard seltzer can with a curvy body illustration as healthier and easier to digest compared to a hard seltzer can with a slim body illustration. This result is in line with the expectation that a slim body illustration is associated with healthy food which is more often 'light food' that is easy to digest and does not cause bloating. A curvy body illustration is more associated with unhealthy food which contains more fat and is more likely to cause bloating (Karnal et al., 2016; Yarar et al., 2019). Moreover, this result can also be explained by the notion that over time people have created a "thin is healthy" principle in their minds which means that individuals who are considered thin are believed to be healthier compared to those who are not considered thin (Singh & Singh, 2011; Welborn et al., 2003; Yarar et al., 2019). However, this thinking only accounts for people who are focussed on a healthy lifestyle since those people are more sensitive to product package cues implying health benefits than people who are not health-conscious (Gomez et al., 2013; Karnal et al., 2016; Mai et al., 2016). In a similar line, Van Ooijen et al. (2017) demonstrates that elongated product packages mimicking a healthy human body are effective package cues for evaluating a product's health benefits when a consumer has a health-

relevant shopping goal while these cues do not influence consumers with a hedonic shopping goal (Van Ooijen et al., 2017).

A similar interaction effect was found between female body illustration and position of nutrition facts on the perceived healthiness and the expected digestibility. The results of this study revealed that the congruent design elements (slim body illustration x top position and curvy body illustration x bottom position) lead to a higher perceived healthiness and higher expected digestibility compared to the incongruent conditions (slim body illustration x bottom position and curvy body illustration x top position). According to former studies, congruent design elements have a larger impact on product evaluations which can be either positive or negative (Lee & Labroo, 2004; Van Rompay & Pruyn, 2011; Fenko et al., 2016). The reason for this is that congruent design elements transfer a collective symbolic meaning which facilitates fluent information processing (Lee & Labroo, 2004). A can with a slim body illustration and the nutrition facts positioned at the top convey a symbolic meaning of 'lightweight' and was therefore expected to be considered the healthiest and the easiest to digest. A can with a curvy body illustration and the nutrition facts positioned at the bottom convey the symbolic meaning of 'heavyweight' and was therefore expected to be considered the least healthy and least easy to digest. Surprisingly, the results are not in line with the expectation, and it seems like the congruency between the two design elements leads to more positive evaluations regardless of the collective symbolic meaning. Former studies provide a clarification for the results of the incongruent conditions which is that when design elements conflict on a specific factor, such as healthiness perceptions, consumers assign more value to the conflicting elements, most likely polarizing evaluations of the healthiness perceptions (Hoegg et al., 2010; Sheehan et al., 2020).

Furthermore, there is an interaction effect between position of nutrition facts and outline colour saturation. The results revealed that the incongruent conditions (high colour-saturated typeface outlining x top position and low colour-saturated typeface outlining x bottom position) lead to a higher perceived healthiness compared to the congruent conditions (low colour-saturated typeface outlining x top position and high colour-saturated typeface outlining x bottom position). It seems like the participants did not notice the collective symbolic meaning of the congruent design elements. Compared to other studies, for instance the study from Pleyers (2021) that investigated the congruence between the shape of a wine and perfume container (round/angular) and the shape of its label (round/angular), the design elements position of nutrition facts and outline colour saturation are very abstract. Possibly, participants would have noticed the collective symbolic meaning when the design elements are more straight-forward. The reason that the incongruent design elements were evaluated more positively remains unknown, it might be coincidence or maybe the participants found the incongruent design elements of the hard seltzer can more attractive.

A large body of literature validates that healthiness inferences of a product can be made based on the shape of the packaging. Packaging that depicts a slim body shape, as opposed to a wide body shape, functions as a symbolic signal for product healthiness, making the package's width-to-height ratio an implicit indicator of how healthy a product is (Fenko et al., 2016; Koo & Suk, 2016; Van Ooijen et al., 2017; Yarar et al., 2019; Sheehan et al., 2020). However, when the general health interest was not included, a similar result was not found. The results showed no effect of female body illustration on the perceived healthiness, expected digestibility, and expected natural taste. An explanation for these results might be that more recently well-known celebrities and influencers have popularized a curvier or more full-body type in the mainstream media (McComb & Mills, 2022). Since this body type is more normalised, the manipulation of the curvy female body might be too subtle. Therefore, the participants did not perceive the curvy body as wide or large and did not link it to unhealthiness.

Deng & Kahn (2009) found that images placed at the bottom of a product packaging are perceived to be heavier, as opposed to images placed at the top which are perceived to be lighter. Light is related to healthy food, which is more natural and easier to digest, while heavy is more related to unhealthy food which contains a lot of fat and is less easy to digest (Karnel et al., 2016). Therefore, a hard seltzer can with the nutrition facts positioned at the top was expected to be healthier, easier to digest, and taste more natural compared to a hard seltzer can with the nutrition facts positioned at the bottom. Contradicting the theory of Deng & Kahn (2009), results revealed there was no difference between the nutrition facts positioned at the top or bottom. This was not a surprising result because the manipulation check also revealed there was no difference in weight perceptions. The inconsistent result may be due to the design of the can, the female body illustration is centred in the middle and might catch the attention of the participants. Also, in the condition where the nutrition facts are positioned at the top, the female body illustration is standing on the ground which may lead to the participants perceiving the can as heavy instead of light.

Former studies justify that products in low colour-saturated packaging are perceived to be more healthful than products in high colour-saturated packaging (Tijssen et al., 2017; Mead & Richerson, 2018). The reasoning behind this is that colours differ in perceived heaviness, lighter tones are perceived to be less heavy compared to darker tones (Walker et al., 2010; Pinkerton & Humphrey, 1974 as cited by Karnal et al., 2016). Consequently, the results of the manipulation check showed a can with high colour-saturated typeface outlining is perceived to be heavier compared to a can with low colour-saturated typeface outlining. However, against the expectation, the results of this study revealed that heaviness perceptions do not lead to health perceptions. A reason for this conflicting result could be that the participants matched the green colour with the flavour of the can which was lime and therefore the colour saturation level did not make a difference anymore.

The results showed no effects of female body illustration, position of nutrition facts, and outline colour saturation on the purchase intention. An explanation for this might be that most of the participants have never tasted hard seltzer before. Most people are naturally reluctant to try new food products because purchasing new food products is risky and involves a lot of uncertainty (Jung et al., 2022). For that reason, consumers often consider these factors while making purchase decisions (Wang et al., 2022). Risk and benefit assessments along with social and economic factors, knowledge, and labelling determine the final attitude towards a product and the willingness to try a new product (Costa-Font et al., 2008). Another explanation for this result might be that participants found it difficult to assess whether they would purchase the product since the participants were not in a real-life environment.

6.2 Implications

The product category hard seltzer focusses on health-conscious people by indicating hard seltzer fits in their current lifestyle because it contains fewer calories. This study reveals that health-conscious people may perceive a hard seltzer can with a slim body illustration as healthier and easier to digest compared to a can with a curvy body illustration. Therefore, hard seltzer brands can possibly communicate the inherent properties of hard seltzer to health-conscious people by illustrating a slim body on the product packaging. To reach people that are not health-conscious hard seltzer brands must focus on other aspects such as taste since these people are simply not interested in how healthy a product is. Consequently, those people would not buy hard seltzer just because of its health properties.

Product categories with similar characteristics to hard seltzer might also benefit from this research. For example, alcohol-free beer and wine also contain fewer calories and are healthier compared to normal beer and wine. Therefore, an illustration of a slim body might also successfully communicate alcohol-free beer and wine is relatively healthy to health-conscious people.

Besides contributing to the existing literature in packaging design, this study acts as a basis for a new research area. To the best of the author's knowledge, former research has not paid attention to package design elements of alcoholic products that influence the perception of being a relatively healthy option. Even though results show no differences between female body illustration (slim vs. curvy), position of nutrition facts (top vs. bottom), and outline colour saturation (high vs. low) on the perceived healthiness, expected digestibility, expected natural taste, and purchase intention, future researchers can still gain knowledge on this study and anticipate on the results of this study. For instance, the results reveal that design elements that share a collective symbolic meaning are evaluated more positively than design elements that do not share a collective meaning. Future researchers may act on this finding by implementing and testing it in their studies. For designers and marketers this is also useful information; while designing product packaging designers and marketeers can take into account the coherence of the

design elements to facilitate fluent information processing and therefore ensure positive product evaluations.

Based on this research, a discussion can arise about whether it is ethical to promote hard seltzer as a healthy alternative. It is important to keep in mind that this research does not state hard seltzer is healthy. The approach is that when someone is going to drink alcohol anyway, hard seltzer is a more responsible alternative compared to other alcoholic drinks such as beer and wine. Hence, it is ethically responsible to promote hard seltzer as relatively healthy when it is made clear that hard seltzer functions as a substitute for other alcoholic drinks.

6.3 Limitations and future research

This research includes a few limitations. The first limitation is that the experiment was conducted in an online environment. The participants were not able to touch and feel the product in real life instead they had to assess the hard seltzer can via an electronic device. Therefore, the participants might find the hard seltzer can less realistic which can impact the results. The participants were also not able to taste the product, making it unclear whether the expectations solely derived from the product packaging are met after tasting the product. Consequently, future studies must take place in a real-life environment to create a complete understanding of the consumer's perceptions and product evaluations.

The second limitation is that in the main study the participants did not consciously perceive the female body illustration and position of nutrition facts manipulations as intended. A couple of participants mentioned they did not understand the manipulation questions and they would have liked to see the image of the hard seltzer can again. The manipulation questions were asked at the end of the survey so the participants would not be biased, and the image of the hard seltzer can was presented at the start of the survey. Therefore, there was some time between the image and the questions which may have led to these results. The participants may have perceived the manipulations as intended unconsciously, however this remains unknown. In the preliminary studies, the manipulations were tested. Nevertheless, due to time constraints, it has not been extensively researched and there were only ten to fifteen participants. To draw the right

conclusions, future studies must first spend more time on making sure the manipulations have the intended effect before proceeding with the main study.

The third limitation is that this study only includes female participants. Therefore, the results cannot be generalized to the whole target group of hard seltzer. Generally, women are more interested in healthy eating and are more concerned about their bodies than men (Yarar et al., 2019). However, it would still be interesting to know what the results would be if men were also allowed to participate. Hard seltzer is not gender-specific, so for hard seltzer brands, it is also important that the design elements appeal to both men and women. Hence, in the future this research could be replicated with male participants.

6.4 Conclusion

In line with former research, this study reveals that people's general health interest influences product perceptions. People who are focussed on a healthy lifestyle perceive a hard seltzer can with a slim body illustration as healthier and easier to digest compared to a hard seltzer can with a curvy body illustration. Therefore, hard seltzer brands can possibly communicate the inherent properties of hard seltzer to health-conscious people by illustrating a slim body on the product packaging. Moreover, this study showed that the congruency between design elements leads to more positive evaluations regardless of the collective symbolic meaning the design elements convey. Consequently, hard seltzer brands need to determine what information they want to convey and make sure the design elements match this collective symbolic meaning.

The results of this study fit in the current trend in which Dutch adults are becoming more concerned with living a healthier life and are trying to make healthier food choices. Besides hard seltzer brands, other companies in the beverage industry are also responding to this trend by for example popularizing alcohol-free beer and wine or by introducing sugar-free versions of existing drinks. All these healthier food choices can make a small contribution to the common goal of living a healthier life.

References

Aydoğdu, F. (2020). *The weight of taste* [University of Twente]. University of Twente student theses. https://essay.utwente.nl/81052/1/Aydogdu_MA_BMS.pdf

Baker, M. J., & Churchill, G. A. (1977). The impact of physically attractive models on advertising evaluations. *Journal of Marketing Research, 14*(4), 538–555. https://doi.org/10.2307/3151194

Biondi, B., & Camanzi, L. (2020). Nutrition, hedonic or environmental? The effect of front-of-pack messages on consumers' perception and purchase intention of a novel food product with multiple attributes. *Food Research International, 130*, 108962. https://doi.org/10.1016/j.foodres.2019.108962

Carillo, E., Fiszman, S., Lähteenmäki, L., & Varela, P. (2014). Consumers' perception of symbols and health claims and health-related label messages. A cross-cultural study. *Food Research International, 62*, 653-661. http://dx.doi.org/10.1016/j.foodres.2014.04.028

Costa-Font, M., Gil, J.M., & Traill, W.B. (2008). Consumer acceptance, valuation of and attitudes towards genetically modified food. *Food policy, 33*(2), 99-111. https://doi.org/10.1016/j.foodpol.2007.07.002

Deibert, L. (2020, September 25). *Hard seltzer: krijgt dit hippe drankje bij ons net zoveel fans als in de VS?* AD. https://www.ad.nl/koken-en-eten/hard-seltzer-krijgt-dit-hippe-drankje-bij-ons-net-zoveel-fans-als-in-de-vs-br~a5b566d8/

Delivett, C.P., Klepacz, N.A., Farrow, C.V., Thomas, J.M., Raats, M.M., & Nash, R.A. (2020). Front-of-pack images can boost the perceived health benefits of dietary products. *Appetite, 155*, 104831. https://doi.org/10.1016/j.appet.2020.104831

De Sousa, R. (1990). *The rationality of emotion*. Mit Press.

Deng, X., & Kahn, B. (2009). Is your product on the right side? The "location effect" on perceived product heaviness and package evaluation. *Journal of Marketing Research, 44*(6), 725-738. https://doi.org/10.1509/jmkr.46.6.725_JMR6B

Dinnissen, C.S., Ocké, M.C., Buurma-Rethans, E.J.M., & Van Rossum, C.T.M. (2021). Dietary changes among adults in The Netherlands in the period 2007–2010 and 2012–2016. Results from two cross-sectional national food consumption surveys. *Nutrients*, *13*, 1520. https://doi.org/10.3390/nu13051520

European Institute of Innovation & Technology. (2021, July). *Our food, our food system. What Generation-Z wants from a healthy food system.* https://www.eitfood.eu/media/news-pdf/Our_Food%2C_Our_Food_System_-_EIT_Food_report_.pdf

Fenko, A., Lotterman, H., & Galetzka, M. (2016). What's in a name? The effects of sound symbolism and package shape on consumer responses to food products. *Food Quality and Preference, 51*, 100-108. https://doi.org/10.1016/j.foodqual.2016.02.021

Findling, M.T., Werth, P.M., Musicus, A.A., Bragg, M.A., Graham, D.J., Elbel, B., & Roberto, C.A. (2018). Comparing five front-of-pack nutrition labels' influence on consumers' perceptions and purchase intentions. *Preventive Medicine, 106*, 114-121. https://doi.org/10.1016/j.ypmed.2017.10.022

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research.* Addison-Wesley.

Franco-Arellano, B., Vanderlee, L., Ahmed, M., Oh, A., & L'Abbé, M. (2020). Influence of front-of-pack labelling and regulated nutrition claims on consumers' perceptions of product healthfulness and purchase intentions: A randomized controlled trial. *Appetite, 149*, 104629. https://doi.org/10.1016/j.appet.2020.104629

Gil-Pérez, I., Rebollar, R., & Lidón, I. (2020). Without words: the effects of packaging imagery on consumer perception and response. *Current Opinion in Food Science, 33*, 69-77. https://doi.org/10.1016/j.cofs.2019.12.006

Gomez, P., Borges, A., & Pechmann, C. (2013). Avoiding poor health or approaching good health: Does it matter? The conceptualization, measurement, and consequences of health regulatory focus. *Journal of Consumer Psychology, 23*(4), 451–463. http://dx.doi.org/10.1016/j.jcps.2013.02.001

Gould, S. (2005). Consumer attitudes toward health and health care: A differential perspective. *Journal of Consumer Affairs, 22*(1), 96–118. https://doi.org/10.1111/j.1745-6606.1988.tb00215.x

Granato, G., Fischer, A., Van Trijp, H. (2021). A meaningful reminder on sustainability: When explicit and implicit packaging cues meet. *Journal of Environmental Psychology, 79*, 101724. https://doi.org/10.1016/j.jenvp.2021.101724

Henderson, P. W., Giese, J. L., & Cote, J. A. (2004). Impression management using typeface design. *Journal of Marketing, 68*(4), 60–72. https://doi.org/ 10.1509/jmkg.68.4.60.42736

Hoegg, J., Alba, J.W., & Dahl, D.W. (2010). The good, the bad, and the ugly: Influence of aesthetics on product feature judgments. *Journal of Consumer Psychology, 20*, 419-430. https://doi.org/10.1016/j.jcps.2010.07.002

Jung, I.N., Sharma, A., & Mattila, A.S. (2022). The impact of supermarket credibility on purchase intention of novel food. *Journal of Retailing and Consumer Services, 64*. https://doi.org/10.1016/j.jretconser.2021.102754

Kapsak, W., Schmidt, D., Childs, N., Meunierc, J., & White, C. (2008). Consumer perceptions of graded, graphic, and text label presentations for qualified health claims. *Critical Reviews in Food Science and Nutrition, 48*(3), 248–256. https://doi.org/10.1080/10408390701286058

Karnal, N., Machiels, C., Orth, U.R., & Mai, R. (2016). Healthy by design, but only when in focus: Communicating non-verbal health cues through symbolic meaning in packaging. *Food Quality and Preference, 52*, 106-119. http://dx.doi.org/10.1016/j.foodqual.2016.04.004

Koo, J., & Suk, K. (2016). The effect of package shape on calorie estimation. *International Journal of Research in Marketing, 33*, 856-867. http://dx.doi.org/10.1016/j.ijresmar.2016.03.002

Kunz, S., Haasova, S., & Florack, A. (2020). Fifty shades of food: The influence of package colour saturation on health and taste in consumer judgments. *Psychology & Marketing, 37*(7), 900-912. https://doi.org/10.1002/mar.21317

Labrecque, L. I., Patrick, V. M., & Milne, G. R. (2013). The marketers' prismatic palette: A review of colour research and future directions. *Psychology & Marketing, 30*(2), 187-202. https://doi.org/10.1002/mar.20597

Lee, A. Y., & Labroo, A.A. (2004). The effect of conceptual and perceptual fluency on brand evaluation. *Journal of Marketing Research, 41*(2),151–65. https://doi.org/10.1509/jmkr.41.2.151.28665

Lin, M. (n.d). *Hard seltzer industry: Unlikely to Fizzle Out.* Toptal. https://www.toptal.com/finance/market-research-analysts/hard-seltzer-industry

Lindh, H., Olsson, A., & Williams, H. (2016). Consumer perceptions of food packaging: Contributing to or counteracting environmentally sustainable development? *Packaging Technology and Science, 29*(1), 3–23. https://doi.org/10.1002/pts.2184

Machiels, C., Yarar, N., & Orth, U. (2019). *Trends in beverage packaging*. *Elsevier Inc*. https://doi.org/10.1016/B978-0-12-816683-3.00004-9

Mai, R., Symmank, C., & Seeberg-Elverfeldt, B. (2016). Light and pale colours in food packaging: When does this package cue signal superior healthiness or inferior tastiness? *Journal of Retailing, 92*(4), 426-444. http://dx.doi.org/10.1016/j.jretai.2016.08.002

McComb, S.E., & Mills, J.S. (2022). The effect of physical appearance perfectionism and social comparison to thin-, slim-thick-, and fit-ideal Instagram imagery on young women's body image. *Body Image, 40*, 165-175. https://doi.org/10.1016/j.bodyim.2021.12.003

Mead, J.A., & Richerson, R. (2018). Package colour saturation and food healthfulness perceptions. *Journal of Business Research, 82*, 10-18. http://dx.doi.org/10.1016/j.jbusres.2017.08.015

NielsenIQ. (2019, May 21). *How newer ready-to-drink beverages and packages are shaking up the adult beverage market*. NielsenIQ. https://nielseniq.com/global/en/insights/analysis/2019/how-ready-to-drink-beverages-and-packages-are-shaking-up-the-adult-beverage-market/

Pleyers, G. (2021). Shape congruence in product design: Impacts on automatically activated attitudes. *Journal of Retailing and Consumer Services, 61*. https://doi.org/10.1016/j.jretconser.2019.101935

Provencher, V., Polivy, J., & Herman, P. (2009). Perceived healthiness of food. If it's healthy, you can eat more! *Appetite, 52*(2), 340-344. https://doi.org/10.1016/j.appet.2008.11.005

Rajendrah, S., Rashid, R. A., & Mohamed, S. B. (2017). The impact of advertisements on the conceptualisation of ideal female beauty: A systematic review. *Man in India, 97*(16), 361–369.

Roininen, K., Lähteenmäki, L., & Tuorila, H. (1999). Quantification of consumer attitudes to health and hedonic characteristics of foods. *Appetite, 33*(1), 71-88. https://doi.org/10.1006/appe.1999.0232

Schuldt, J. P. (2013). Does green mean healthy? Nutrition label colour affects perceptions of healthfulness. *Health Communication, 28*(8), 814-821. https://doi.org/10.1080/10410236.2012.725270

Schwartz, M. B., Vartanian, L. R., Nosek, B. A., & Brownell, K. D. (2006). The influence of one's own body weight on implicit and explicit anti-fat bias. *Obesity, 14*(3), 440–447. https://doi.org/10.1038/oby.2006.58

Selensky, J.C., & Carels, R.A. (2021). Weight stigma and media: An examination of the effect of advertising campaigns on weight bias, internalized weight bias, self-esteem, body image, and effect. *Body Image, 36*, 95-106. https://doi.org/10.1016/j.bodyim.2020.10.008

Sheehan, D., Van Ittersum, K., Craig, A.W., & Romero, M. (2020). A packaged mindset: how elongated packages induce healthy mindsets. *Appetite, 150*, 104657. https://doi.org/10.1016/j.appet.2020.104657

Singh, D., & Singh, D. (2011). Shape and significance of feminine beauty: An evolutionary perspective. *Sex Roles, 64*, 723–731. https://doi.org/10.1007/s11199-011-9938-z

Sonneville, F. (2021, March). *Beer Quarterly Q1 2021: The Rise of Hard Seltzers in the US and Beyond.* Rabobank Research. https://research.rabobank.com/far/en/sectors/beverages/beer-quarterly-q1-2021.html

Spence, C., & Velasco, C. (2018). On the multiple effects of packaging colour on consumer behaviour and product experience in the 'food and beverage' and 'home and personal care' categories. *Food Quality and Preference, 68,* 226-237. https://doi.org/10.1016/j.foodqual.2018.03.008

Tijssen, I., Zandstra, E.H., Graaf, C., & Jager, G. (2017). Why a 'light' product package should not be light blue: Effects of package colour on perceived healthiness and attractiveness of sugar- and fat-reduced products. *Food Quality and Preference, 59*, 46-58. https://doi.org/10.1016/j.foodqual.2017.01.019

Van Ooijen, I., Fransen, M. L., Verlegh, P. W. J., & Smit, E. G. (2017). Signalling product healthiness through symbolic package cues: Effects of package shape and goal congruence on consumer behaviour. *Appetite, 109*, 73–82. https://doi.org/10.1016/j.appet.2016.11.021

Van Rompay, T.J.L., & Pruyn, A.T.H. (2011). When visual product features speak the same Language: Effects of Shape-Typeface Congruence on Brand Perception and Price expectations. *Product Development & Management Association, 28*, 599-610. https//doi.org/10.1111/j.1540-5885.2011.00828.x

Velasco, C., Woods, A. T., Hyndman, S., & Spence, C. (2015). The taste of typeface. *i- Perception, 6*(4). http://dx.doi.org/10.1177/2041669515593040.

Vollenbroek, M. (2021). *Organic look, healthier product?* [University of Twente]. University of Twente student theses. https://essay.utwente.nl/87452/1/MorsinkVollenbroek_MA_BMS.pdf

Walker, P., Francis, B.J., & Walker, L. (2010). The Brightness-Weight Illusion. *Experimental Psychology, 57*(6), 462-669. https://doi.org./ 10.1027/1618-3169/a000057

Wang, Q., Oostindjer, M., Amdam, G., & Egelandsdal, B. (2016). Snacks with nutrition labels: Tastiness perception, healthiness perception, and willingness to pay by Norwegian

adolescents. *Journal of Nutrition Education and Behaviour, 48*(2), 104-111. https://dx.doi.org/10.1016/j.jneb.2015.09.003

Wang, W., Yi, Y., Li, J., Sun, G., & Zhang, M. (2022). Lighting up the dark: how the scarcity of childhood resources leads to preferences for bright stimuli. *Journal of Business Research,* 139, 1155–1164. doi: 10.1016/j.jbusres.2021.10.058

Welborn, T. A., Dhaliwal, S. S., & Bennett, S. A. (2003). Waist–hip ratio is the dominant risk factor predicting cardiovascular death in Australia. *Medical Journal of Australia, 179*(11), 580-585. https://doi.org/10.5694/j.1326-5377.2003.tb05704.x

Yarar, N., Machiels, C., & Orth, U.R. (2019). Shaping up: how package shape and consumer body conspire to affect food healthiness evaluation*. Food Quality and Preference, 75*, 209-219. https://doi.org/10.1016/j.foodqual.2019.03.004

Zampini, M., Sanabria, D., Phillips, N., & Spence, C. (2007). The multisensory perception of flavour: Assessing the influence of colour cues on flavour discrimination responses. *Food Quality and Preference, 18*, 975–984. https://doi.org/10.1016/j.foodqual.2007.04.001

Appendices

Appendix A – Questionnaire preliminary study 1

Start of Block: Block Introductie

V0 Bedankt dat je de tijd neemt om deel te nemen aan deze pre-test. In de pre-test word je gevraagd om verschillende illustraties van een vrouwelijk lichaam te observeren en daar vervolgens een aantal vragen over te beantwoorden. Jouw antwoorden bepalen welke illustratie op een productverpakking van een alcoholisch drankje komt te staan. Vervolgens wordt de productverpakking met illustratie tijdens het algemene onderzoek getest.

Het invullen van de vragenlijst duurt ongeveer 5 minuten.

Met vriendelijke groet,
Nicole Woolderink

V1 Ik ga akkoord met de deelname aan dit onderzoek.

- ○ Ja (1)
- ○ Nee (2)

Skip To: End of Survey If Ik ga akkoord met de deelname aan dit onderzoek. = Nee

---

V01 Als eerst volgen er een aantal algemene vragen.

V2 Wat is je geslacht?

- ○ Man (1)
- ○ Vrouw (2)
- ○ Ik identificeer mezelf niet als man of vrouw. (3)
- ○ Ik geef liever geen antwoord. (4)

Skip To: End of Survey If Wat is uw geslacht? = Man
Skip To: End of Survey If Wat is uw geslacht? = Ik identificeer mezelf niet als man of vrouw.
Skip To: End of Survey If Wat is uw geslacht? = Ik geef liever geen antwoord.

V3 Wat is je leeftijd?

_____

End of Block: Block Introductie

Start of Block: Block V4

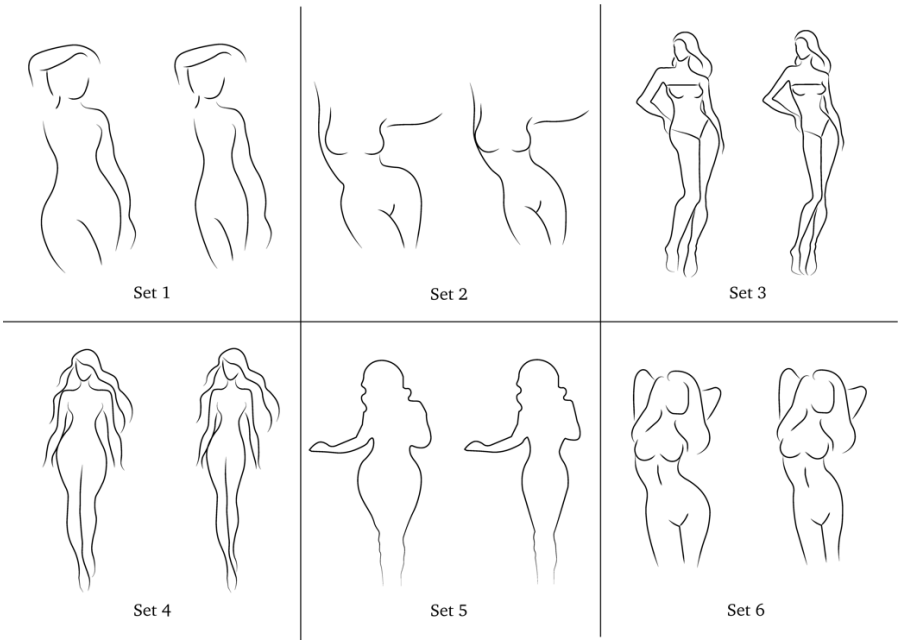
V02 In deze pre-test worden een aantal illustraties getoond van een vrouwelijk lichaam. De illustraties variëren in lichaamstype, waarbij een slank lichaam wordt aangeduid als 'slim' en een wat voller/ronder lichaam als 'curvy'.

V4

Hieronder ziet u zes verschillende sets bestaande uit een 'slim' en 'curvy' lichaamstype. Neem gerust de tijd om de sets goed te bestuderen. Daarna kun je de vraag beantwoorden.

Zou je de illustraties willen rangschikken van meest geschikt voor op een productverpakking van een alcoholisch drankje naar minst geschikt voor op een productverpakking van een alcoholisch drankje?

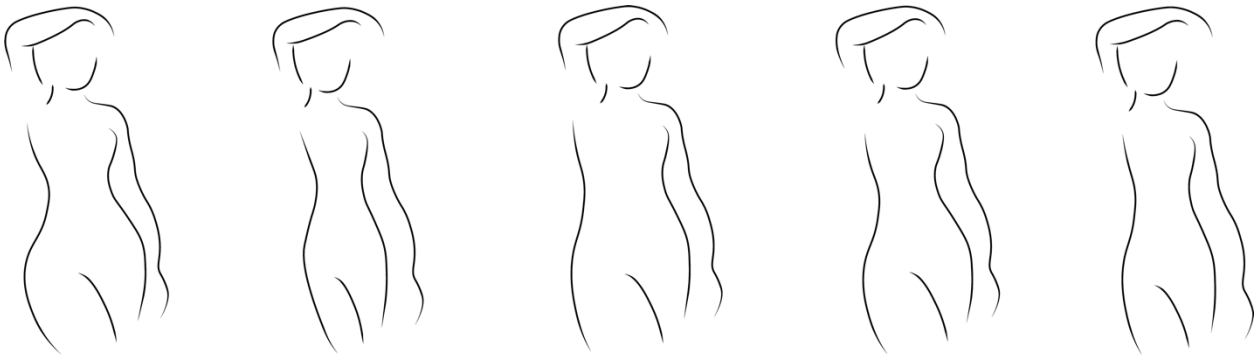
_____ Image: Set 1 (1)
_____ Image: Set 2 (2)
_____ Image: Set 3 (3)
_____ Image: Set 4 (4)
_____ Image: Set 5 (5)
_____ Image: Set 6 (6)



End of Block: Block V4

Start of Block: Block V5/6

V5/6 Neem gerust de tijd om onderstaande illustraties te bekijken. Daarna kun je de vragen beantwoorden.



V5 Welke illustratie geeft volgens jou het beste een 'curvy' lichaamstype weer dat ook geschikt is voor op een productverpakking van een alcoholisch drankje?

- Illustratie 1 (1)
- Illustratie 2 (2)
- Illustratie 3 (3)
- Illustratie 4 (4)
- Illustratie 5 (5)

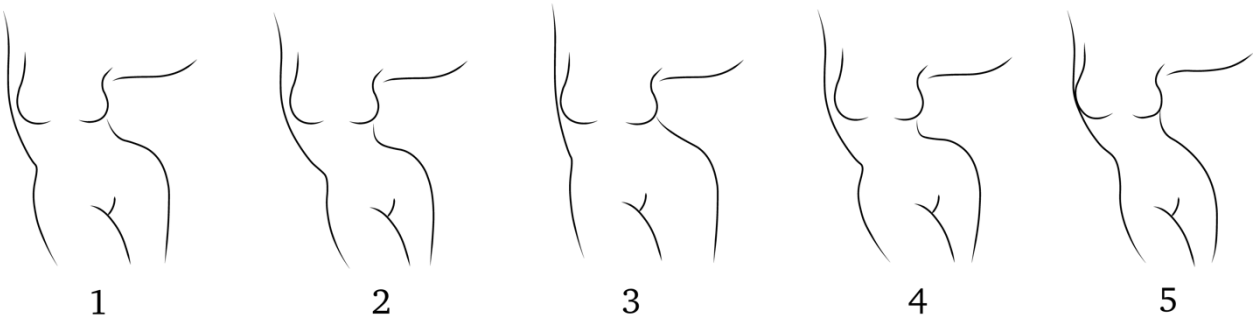
V6 Welke illustratie geeft volgens jou het beste een 'slim' lichaamstype weer dat ook geschikt is voor op een productverpakking van een alcoholisch drankje?

- Illustratie 1 (1)
- Illustratie 2 (2)
- Illustratie 3 (3)
- Illustratie 4 (4)
- Illustratie 5 (5)

End of Block: Block V5/6

Start of Block: Block V7/8

V7/8 Neem gerust de tijd om onderstaande illustraties te bekijken. Daarna kun je de vragen beantwoorden.



V7 Welke illustratie geeft volgens jou het beste een 'curvy' lichaamstype weer dat ook geschikt is voor op een productverpakking van een alcoholisch drankje?

- Illustratie 1 (1)
- Illustratie 2 (2)
- Illustratie 3 (3)
- Illustratie 4 (4)
- Illustratie 5 (5)

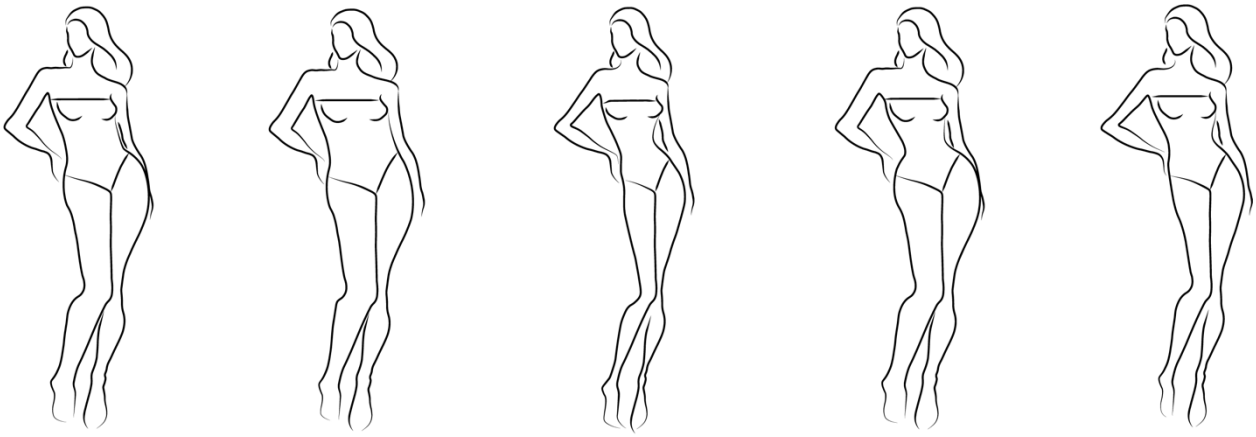
V8 Welke illustratie geeft volgens jou het beste een 'slim' lichaamstype weer dat ook geschikt is voor op een productverpakking van een alcoholisch drankje?

- Illustratie 1 (1)
- Illustratie 2 (2)
- Illustratie 3 (3)
- Illustratie 4 (4)
- Illustratie 5 (5)

End of Block: Block V7/8

Start of Block: Block V9/10

V9/10 Neem gerust de tijd om onderstaande illustraties te bekijken. Daarna kun je de vragen beantwoorden.



V9 Welke illustratie geeft volgens jou het beste een 'curvy' lichaamstype weer dat ook geschikt is voor op een productverpakking van een alcoholisch drankje?

- Illustratie 1 (1)
- Illustratie 2 (2)
- Illustratie 3 (3)
- Illustratie 4 (4)
- Illustratie 5 (5)

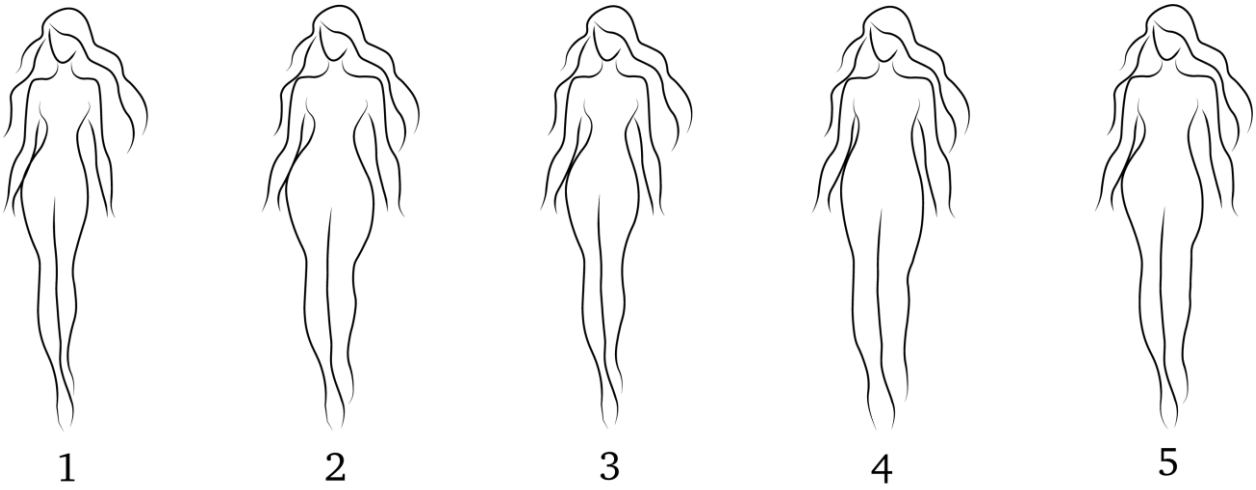
V10 Welke illustratie geeft volgens jou het beste een 'slim' lichaamstype weer dat ook geschikt is voor op een productverpakking van een alcoholisch drankje?

- ○ Illustratie 1 (1)
- ○ Illustratie 2 (2)
- ○ Illustratie 3 (3)
- ○ Illustratie 4 (4)
- ○ Illustratie 5 (5)

End of Block: Block V9/10

Start of Block: V11/12

V11/12 Neem gerust de tijd om onderstaande illustraties te bekijken. Daarna kun je de vragen beantwoorden.



V11 Welke illustratie geeft volgens jou het beste een 'curvy' lichaamstype weer dat ook geschikt is voor op een productverpakking van een alcoholisch drankje?

- Illustratie 1 (1)
- Illustratie 2 (2)
- Illustratie 3 (3)
- Illustratie 4 (4)
- Illustratie 5 (5)

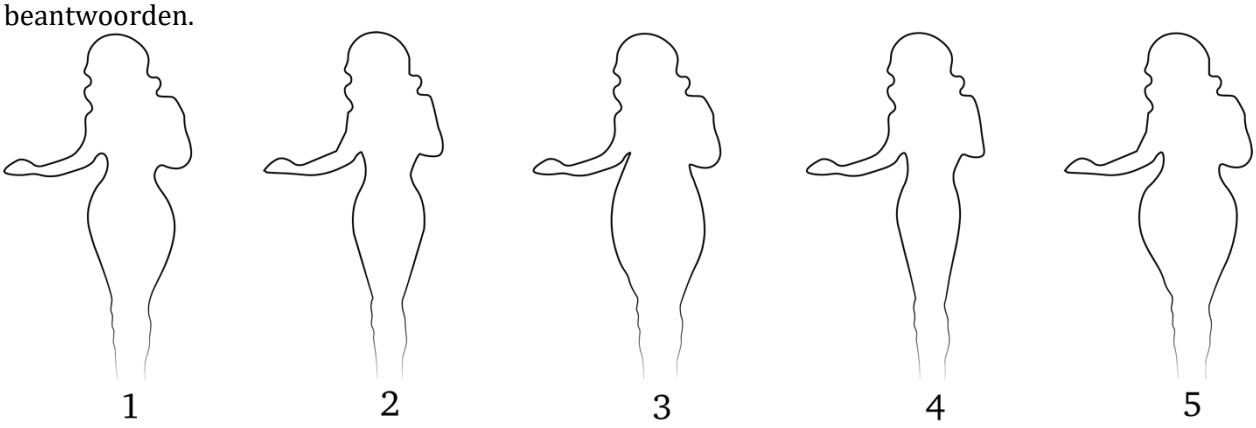
V12 Welke illustratie geeft volgens jou het beste een 'slim' lichaamstype weer dat ook geschikt is voor op een productverpakking van een alcoholisch drankje?

- Illustratie 1 (1)
- Illustratie 2 (2)
- Illustratie 3 (3)
- Illustratie 4 (4)
- Illustratie 5 (5)

End of Block: V11/12

Start of Block: Block V13/14

V13/14 Neem gerust de tijd om onderstaande illustraties te bekijken. Daarna kun je de vragen beantwoorden.



V13 Welke illustratie geeft volgens jou het beste een 'curvy' lichaamstype weer dat ook geschikt is voor op een productverpakking van een alcoholisch drankje?

- Illustratie 1 (1)
- Illustratie 2 (2)
- Illustratie 3 (3)
- Illustratie 4 (4)
- Illustratie 5 (5)

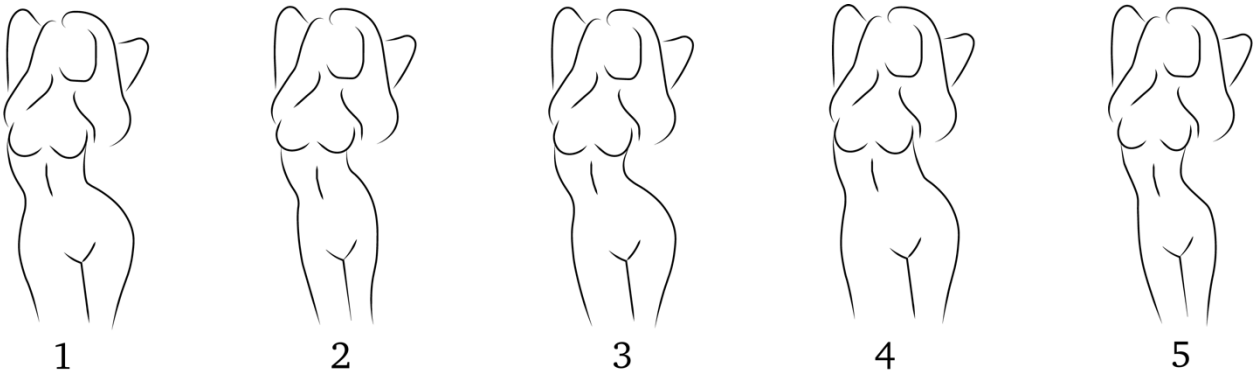
V14 Welke illustratie geeft volgens jou het beste een 'slim' lichaamstype weer dat ook geschikt is voor op een productverpakking van een alcoholisch drankje?

- Illustratie 1 (1)
- Illustratie 2 (2)
- Illustratie 3 (3)
- Illustratie 4 (4)
- Illustratie 5 (5)

End of Block: Block V13/14

Start of Block: Block V15/16

V15/16 Neem gerust de tijd om onderstaande illustraties te bekijken. Daarna kun je de vragen beantwoorden.



V15 Welke illustratie geeft volgens jou het beste een 'curvy' lichaamstype weer dat ook geschikt is voor op een productverpakking van een alcoholisch drankje?

- Illustratie 1 (1)
- Illustratie 2 (2)
- Illustratie 3 (3)
- Illustratie 4 (4)
- Illustratie 5 (5)

V16 Welke illustratie geeft volgens jou het beste een 'slim' lichaamstype weer dat ook geschikt is voor op een productverpakking van een alcoholisch drankje?

- Illustratie 1 (1)
- Illustratie 2 (2)
- Illustratie 3 (3)
- Illustratie 4 (4)
- Illustratie 5 (5)

End of Block: Block V15/16

Start of Block: Block V17/18

V03 Tot slot volgen er een aantal vragen over je alcoholgebruik.

V17 Hoe vaak drink je alcoholhoudende dranken?

- ○ Minstens 4 keer per week (1)
- ○ 2 tot 3 keer per week (2)
- ○ 2 tot 4 keer per maand (3)
- ○ Maandelijks of minder (4)
- ○ Nooit (5)

Skip To: End of Survey If Hoe vaak drinkt u alcoholhoudende dranken? = Nooit

V18 Hoeveel glazen alcohol nuttig je op een dag waarop je aan het drinken bent?

- ○ Minstens 10 glazen (1)
- ○ 7 tot 9 glazen (2)
- ○ 5 tot 6 glazen (3)
- ○ 3 tot 4 glazen (4)
- ○ 1 tot 2 glazen (5)

End of Block: Block V17/18

Appendix B – Questionnaire preliminary study 2

Start of Block: Block Introductie

V0 Bedankt dat je de tijd neemt om deel te nemen aan deze pre-test. In de pre-test word je gevraagd om verschillende productverpakkingen van een hard seltzer blikje te observeren en daar vervolgens een aantal vragen over te beantwoorden. Je antwoorden bepalen het design van een hard seltzer blikje dat getest zal worden tijdens het algemene onderzoek.

Het invullen van de vragenlijst duurt maximaal vijf minuten.

Met vriendelijke groet,
Nicole Woolderink

V1 Ik ga akkoord met de deelname aan dit onderzoek.

- ○ Ja (1)
- ○ Nee (2)

Skip To: End of Survey If Ik ga akkoord met de deelname aan dit onderzoek. = Nee

Page Break

V01 Eerst volgen er een aantal algemene vragen.

V2 Wat is je geslacht?

- ○ Man (1)
- ○ Vrouw (2)
- ○ Ik identificeer mezelf niet als man of vrouw. (3)
- ○ Ik geef liever geen antwoord. (4)

Skip To: End of Survey If Wat is je geslacht? = Man
Skip To: End of Survey If Wat is je geslacht? = Ik identificeer mezelf niet als man of vrouw.
Skip To: End of Survey If Wat is je geslacht? = Ik geef liever geen antwoord.

V3 Wat is je leeftijd?

_____

Skip To: End of Survey If Condition: Wat is je leeftijd? Is Greater Than 40. Skip To: End of Survey.

Skip To: End of Survey If Condition: Wat is je leeftijd? Is Less Than 18. Skip To: End of Survey.

Page Break

V02 In deze pre-test worden vier afbeeldingen van een hard seltzer blikje apart van elkaar getoond. De blikken lijken op elkaar, maar zijn net iets anders vormgegeven. Bekijk de afbeeldingen goed, daarna kun je de vragen beantwoorden.

End of Block: Block Introductie

Start of Block: Conditie 1

V4/5/6 Bekijk de afbeelding goed, daarna kun je de vragen beantwoorden.

V4 Hoe zwaar denk je dat het drankje uit het hard seltzer blikje is?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Zwaar	○	○	○	○	○	Licht

V5 Hoe realistisch vind je de productverpakking van het hard seltzer blikje?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Onrealistisch	○	○	○	○	○	Realistisch

V6 Hoe aantrekkelijk vind je de productverpakking van het hard seltzer blikje?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Onaantrekkelijk	○	○	○	○	○	Aantrekkelijk

End of Block: Conditie 1

Start of Block: Conditie 2

V7/8/9 Bekijk de afbeelding goed, daarna kun je de vragen beantwoorden.

V7 Hoe zwaar denk je dat het drankje uit het hard seltzer blikje is?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Zwaar	○	○	○	○	○	Licht

V8 Hoe realistisch vind je de productverpakking van het hard seltzer blikje?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Onrealistisch	○	○	○	○	○	Realistisch

V9 Hoe aantrekkelijk vind je de productverpakking van het hard seltzer blikje?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Onaantrekkelijk	○	○	○	○	○	Aantrekkelijk

End of Block: Conditie 2

Start of Block: Conditie 3

V10/11/12 Bekijk de afbeelding goed, daarna kun je de vragen beantwoorden.

V10 Hoe zwaar denk je dat het drankje uit het hard seltzer blikje is?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Zwaar	○	○	○	○	○	Licht

V11 Hoe realistisch vind je de productverpakking van het hard seltzer blikje?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Onrealistisch	○	○	○	○	○	Realistisch

V12 Hoe aantrekkelijk vind je de productverpakking van het hard seltzer blikje?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Onaantrekkelijk	○	○	○	○	○	Aantrekkelijk

End of Block: Conditie 3

Start of Block: Conditie 4

V13/14/15 Bekijk de afbeelding goed, daarna kun je de vragen beantwoorden.

V13 Hoe zwaar denk je dat het drankje uit het hard seltzer blikje is?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Zwaar	○	○	○	○	○	Licht

V14 Hoe realistisch vind je de productverpakking van het hard seltzer blikje?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Onrealistisch	○	○	○	○	○	Realistisch

V15 Hoe aantrekkelijk vind je de productverpakking van het hard seltzer blikje?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Onaantrekkelijk	○	○	○	○	○	Aantrekkelijk

End of Block: Conditie 4

Start of Block: Block alcoholgebruik

V03 Tot slot volgen er een aantal vragen over je alcoholgebruik.

V16 Was je <u>voor</u> deze pre-test bekend met hard seltzer?

- ○ Ja (1)
- ○ Nee (2)

V17 Hoe vaak drink je alcoholhoudende dranken?

- ○ Minstents 4 keer per week (1)
- ○ 2 tot 3 keer per week (2)
- ○ 2 tot 4 keer per maand (3)
- ○ Maandelijks of minder (4)
- ○ Nooit (5)

Skip To: End of Survey If Hoe vaak drink je alcoholhoudende dranken? = Nooit

V18 Hoeveel glazen alcohol nuttig je op een dag waarop je aan het drinken bent?

- ○ Minstens 10 glazen (1)
- ○ 7 tot 9 glazen (2)
- ○ 5-6 glazen (3)
- ○ 3-4 glazen (4)
- ○ 1-2 glazen (5)

V19 Heb je wel eens hard seltzer gedronken?

- ○ Ja (1)
- ○ Nee (2)

End of Block: Block alcoholgebruik

Appendix C – Questionnaire main study

Start of Block: Introductie en toestemming tot deelname

Bedankt dat je de tijd neemt om deel te nemen aan dit onderzoek. In het kader van de master Communication Science aan de Universiteit van Twente werk ik momenteel aan mijn scriptie. Ik doe onderzoek naar de productverpakking van hard seltzer. Tijdens de vragenlijst mag je een hard seltzer blikje beoordelen. Jouw keuzes bepalen het design van de productverpakking van een hard seltzer merk.

Het invullen van de vragenlijst duurt 5 tot 10 minuten. Jouw deelname aan dit onderzoek is geheel vrijwillig. Je hebt de mogelijkheid om op elk moment te stoppen met het invullen van de vragenlijst, zonder hiervoor een reden te geven. Verder worden alle verzamelde gegevens anoniem verwerkt en alleen gebruikt voor dit onderzoek.

Nederlandse vrouwen tussen de 18 en 40 jaar mogen deelnemen aan dit onderzoek.

Met vriendelijke groet,
Nicole Woolderink
n.j.woolderink@student.utwente.nl

V1 Ik ga akkoord met de deelname aan dit onderzoek.

- ○ Ja (1)
- ○ Nee (2)

Skip To: End of Survey If Ik ga akkoord met de deelname aan dit onderzoek. = Nee

Page Break

V2
Browser (1)
Version (2)
Operating System (3)
Screen Resolution (4)
Flash Version (5)
Java Support (6)
User Agent (7)

End of Block: Introductie en toestemming tot deelname

Start of Block: Demografische gegevens

V3 Wat is je geslacht?

- ○ Man (1)
- ○ Vrouw (2)
- ○ Ik identificeer mezelf niet als man of vrouw. (3)
- ○ Ik geef liever geen antwoord. (4)

Skip To: End of Survey If Wat is je geslacht? = Man
Skip To: End of Survey If Wat is je geslacht? = Ik identificeer mezelf niet als man of vrouw.
Skip To: End of Survey If Wat is je geslacht? = Ik geef liever geen antwoord.

*

V4 Wat is je leeftijd?

_____

Skip To: End of Survey If Condition: Wat is uw leeftijd? Is Greater Than 40. Skip To: End of Survey.
Skip To: End of Survey If Condition: Wat is uw leeftijd? Is Less Than 18. Skip To: End of Survey.

Page Break

End of Block: Demografische gegevens

Start of Block: Beschrijving van hard seltzer

V0 Dit onderzoek gaat over de productverpakking van een hard seltzer merk. Als je niet bekend bent met hard seltzer, volgt hieronder een korte beschrijving:

Hard seltzer staat voor een eigen productcategorie. Hard seltzer is een licht alcoholisch drankje, bestaande uit bruiswater, neutrale alcohol en natuurlijke fruit aroma's.

Page Break

End of Block: Beschrijving van hard seltzer

Start of Block: Conditie 1

C1 Hieronder zie je een afbeelding van een hard seltzer blikje. Neem gerust de tijd om de afbeelding goed te bestuderen. Vervolgens kun je de stellingen beantwoorden.

**Als je de vragenlijst via een computer, laptop of tablet invult, kun je de afbeelding op de volgende pagina in zijn geheel bekijken.*

Page Break

C1 Hieronder zie je de afbeelding voor computer-, laptop- en tabletgebruikers.

End of Block: Conditie 1

Start of Block: Perceived healthiness

V5 PH Beantwoord onderstaande stellingen over het hard seltzer blikje.

	Volledig oneens (1)	Oneens (2)	Neutraal (3)	Mee eens (4)	Volledig mee eens (5)
Ik verwacht dat het drankje gezond is. (1)	○	○	○	○	○
Ik verwacht dat het drankje goed is voor mij. (2)	○	○	○	○	○
Het drankje ziet er niet gezond uit. (3)	○	○	○	○	○
Ik heb de indruk dat het drankje niet gezond is. (4)	○	○	○	○	○
Het drankje ziet er gezonder uit dan vergelijkbare drankjes. (5)	○	○	○	○	○
Als ik het drankje regelmatig zou drinken, zou ik aankomen in gewicht. (6)	○	○	○	○	○
Ik vind het drankje passen binnen een gezond dieet. (7)	○	○	○	○	○
Het drankje helpt mij niet om fit te blijven. (8)	○	○	○	○	○
Door het drankje blijf ik slank. (9)	○	○	○	○	○

End of Block: Perceived healthiness

Start of Block: Expected digestibility

V6 ED Beantwoord onderstaande stellingen over het hard seltzer blikje.

	Volledig oneens (1)	Oneens (2)	Neutraal (3)	Mee eens (4)	Volledig mee eens (5)
Ik verwacht dat het drankje veel calorieën bevat. (1)	○	○	○	○	○
Ik verwacht dat het drankje veel suiker bevat. (2)	○	○	○	○	○
Ik verwacht dat het drankje veel kustmatige zoetstoffen bevat. (3)	○	○	○	○	○
Ik verwacht dat het drankje voor een opgeblazen gevoel zorgt. (4)	○	○	○	○	○
Ik verwacht dat het drankje niet zwaar op de maag valt. (5)	○	○	○	○	○
Ik verwacht dat het drankje voor een vol gevoel zorgt. (6)	○	○	○	○	○

Ik verwacht dat het drankje makkelijk verteerbaar is. (7)	○	○	○	○	○

End of Block: Expected digestibility

Start of Block: Expected natural taste

V7 ENT Beantwoord onderstaande stellingen over de smaakverwachting van het hard seltzer blikje.

	Volledig oneens (1)	Oneens (2)	Neutraal (3)	Mee eens (4)	Volledig mee eens (5)
Ik verwacht dat het drankje een natuurlijke smaak heeft. (1)	○	○	○	○	○
Ik verwacht dat het drankje een kunstmatige smaak heeft. (2)	○	○	○	○	○
Ik verwacht dat het drankje een pure smaak heeft. (3)	○	○	○	○	○
Ik verwacht dat het drankje een chemische smaak heeft. (4)	○	○	○	○	○
Ik verwacht dat het drankje een authentieke smaak heeft. (5)	○	○	○	○	○

End of Block: Expected natural taste

Start of Block: Purchase intention

V8 PI Beantwoord onderstaande stellingen over jouw intentie om het hard seltzer blikje te kopen.

	Volledig oneens (1)	Oneens (2)	Neutraal (3)	Mee eens (4)	Volledig mee eens (5)
Ik zou het drankje niet willen proberen. (1)	○	○	○	○	○
Ik zou overwegen het drankje te kopen in de supermarkt. (2)	○	○	○	○	○
Ik zou actief op zoek gaan naar het drankje in de supermarkt. (3)	○	○	○	○	○
Ik zou het drankje niet kopen. (4)	○	○	○	○	○
Ik zou het drankje drinken op een festival. (5)	○	○	○	○	○
Ik zou het drankje bestellen op het terras. (6)	○	○	○	○	○

End of Block: Purchase intention

Start of Block: General health interest

V9 GHI Beantwoord onderstaande stellingen over jouw voedingskeuzes.

	Volledig oneens (1)	Oneens (2)	Neutraal (3)	Mee eens (4)	Volledig mee eens (5)
Hoe gezond eten of drinken is, heeft weinig invloed op mijn voedingskeuzes. (1)	○	○	○	○	○
Ik ben erg gefocust op hoe gezond mijn eten en drinken is. (2)	○	○	○	○	○
Ik eet en drink wat ik wil en maak me geen zorgen over hoe gezond het is. (3)	○	○	○	○	○
Ik vind het belangrijk dat mijn eten en drinken vetarm is. (4)	○	○	○	○	○
Ik eet en drink altijd gezond en gebalanceerd. (5)	○	○	○	○	○
Ik vind het belangrijk dat mijn dagelijkse voeding veel vitaminen en mineralen bevat. (6)	○	○	○	○	○
Hoe gezond een snack is, maakt mij niet uit. (7)	○	○	○	○	○
Ik eet en drink alles, ook al verhoogt het wellicht mijn cholesterol. (8)	○	○	○	○	○

End of Block: General health interest

Start of Block: Extra vragen

V10 Hoe aantrekkelijk vind je de productverpakking van het hard seltzer blikje?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Onaantrekkelijk	○	○	○	○	○	Aantrekkelijk

V11 Hoe zwaar vind je de tekst op het hard seltzer blikje?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Licht	○	○	○	○	○	Zwaar

V12 Hoe zwaar vind je de illustratie van een vrouwelijk lichaam op het hard seltzer blikje?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Licht	○	○	○	○	○	Zwaar

V13 Hoe zwaar vind je de banner met de vermelding van het aantal calorieën op het hard seltzer blikje?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Licht	○	○	○	○	○	Zwaar

End of Block: Extra vragen

Start of Block: Alcoholgebruik

V14 Was je voor dit onderzoek bekend met hard seltzer?

- Ja (1)
- Nee (2)

Skip To: V16 If Was je voor dit onderzoek bekend met hard seltzer? = Ja

V15 Vergeleken met wijn, bier en andere alcoholische dranken bevat hard seltzer minder calorieën. Zou dit voor jou een reden kunnen zijn om hard seltzer te proberen?

- Ja (1)
- Nee (2)

V16 Hoe vaak drink je alcoholhoudende dranken?

- Minstents 4 keer per week (1)
- 2 tot 3 keer per week (2)
- 2 tot 4 keer per de maand (3)
- Maandelijks of minder (4)
- Nooit (5)

Skip To: End of Survey If Hoe vaak drink je alcoholhoudende dranken? = Nooit

V17 Hoeveel glazen alcohol nuttig je op een dag waarop je aan het drinken bent?

- Minstens 10 glazen (1)
- 7 tot 9 glazen (2)
- 5-6 glazen (3)
- 3-4 glazen (4)
- 1-2 glazen (5)

Page Break

V18 Heb je wel eens hard seltzer gedronken?

- ○ Ja (1)
- ○ Nee (2)

Skip To: End of Block If Heb je wel eens hard seltzer gedronken? = Nee

V19 Wat is je voornaamste reden om hard seltzer te drinken?

_____

End of Block: Alcoholgebruik

Start of Block: Vragen of opmerkingen?

V20 Disclaimer: Het design van het hard seltzer blik is speciaal ontworpen voor dit onderzoek. Het design is fictief en niet echt ontwikkeld en/of gefinancierd door een hard seltzer merk.

Heb je nog vragen of opmerkingen over dit onderzoek?

_____

End of Block: Vragen of opmerkingen?