

# How Packaging of Juice Products Influence Customer Experience

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## Master Thesis

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## Abstract

Providing consumers with positive customer experience is regarded as one way to increase their purchase intention. Using an internet-based survey in Wageningen University, the aim of this work is to investigate whether and how three packaging elements (image of healthy people, health claim and healthy choice label) on orange juice product package influence perceived customer experience, and thus influence the purchase intention of healthy juice.

The results indicate that perceived customer experience does not affect the influence of the packaging elements on the purchase intention of healthy juice. However, the healthy choice label is proved to trigger purchase intention of healthy juice directly. The image evoke positive affective, cognitive and behavioural dimensions of customer experience. The healthy choice label decrease the cognitive effort of consumers, and thus has negative influence on the cognitive dimension of customer experience. Furthermore, sensory, social and behavioural dimensions of customer experience trigger the purchase intention of healthy juice.

**Keywords:** Packaging; Customer experience; Purchase intention; Healthy choice

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# 1 Introduction

As healthy lifestyle and healthy eating are being promoted, there are some organizations suggesting people to consume more fruit and vegetable, as well as fruit juice. The European Commission suggests that '... fruit and vegetable consumption should be increased to at least 400g/day on a population basis' (EuropeanCommission 2001). In the US, the Dietary Guidelines for Americans (2010) advises people to choose freshly squeezed juices as part of a healthful diet. Similarly, the World Cancer Research Fund suggests people to consume 'five or more servings of fruit and vegetables every day, whereby fruit juice can account as one serving (AIJN 2012; USDA 2010).

However, when consumers go into the retailing environment, they face hyper choice. For example, in the Netherlands, there are numerous fruit juice drinks available in the food market. These fruit juice drinks products may differ in content (fruit juice with 100% juice content and nectars with 25-99% fruit juice content), brands (A-brands and private labels), flavours (mixed flavour, orange, apple etc.) and packaging (carton, plastic, glass and others) etc. (AIJN 2012). The energy and nutrients contained in the products are different, which makes some of the products are more healthier, while the others may contain less to achieve fruit intake. The question then comes up: how to make healthy choices easier for consumers?

One possible solution for making healthy choices easier for consumers might be to provide consumers with positive customer experience. Customer experience has a positive influence on consumers' brand loyalty and purchase intention (Brakus et al. 2009; Stuart-Menteth et al. 2006). The manufacturing companies can evoke consumers' positive customer experience through packaging. Packaging was found to have positive influence on customer experience (Baig M. et al. 2013), as packaging acts as a stimuli of customer experience when the consumers interact with the products (Brakus et al. 2009).

Literature has illustrated how packaging influences consumers' buying intention and behaviour. For example, Bloch (1995) developed a conceptual model of consumer responses to product form/ packaging design. In this model, the physical form of the product stimulates consumers' psychological (both cognitive and affective) reaction and then leads to behavioural (approach - avoidance) responses, in the process of communicating with consumers (Bitner 1992; Bloch 1995). Furthermore, positive psychological responses lead to approach activities (e.g. purchase), and negative psychological responses lead to avoidance behaviour (e.g. unwillingness to buy the product (Bloch 1995). Silayoi and Speece (2004) found that graphics and colour of product packaging have positive influences on consumer choice. Graphics that are more appealing are more likely to be chosen and visually larger packages have more potential to be chosen (Silayoi and Speece 2004). Similarly, Bone and France (2001) found that the graphical component of the product, compared to verbal component, has stronger influence on consumers' purchase intention, due to the fact that the graphical component has greater imagery-evoking ability and is more vivid (Bone and France 2001). Furthermore, both visual and verbal elements of the package can have positive influence on consumers' decision-making, because visual elements have positive influence on consumers' emotions and verbal elements have positive influence on consumers' cognitive orientation (Butkeviciene et al. 2008).

Literature that investigates the underlying psychological mechanism in this process is limited. Vilnai-Yavetz and Koren (2013) concluded that the perceived aesthetics and symbolism mediate this process (Vilnai-Yavetz and Koren 2013). But there are no researches illustrating whether and how customer experience mediates this process of packaging influencing the purchase intention.

This study aims at filling in this knowledge gap, by answering how packaging elements stimulate customer experience, as a mediator in influencing consumers' purchase intention. This thesis is focused on the purchase intention for healthy juice products, as the main problem is to make healthy choice easier for the consumers.

So the research question would be:

RQ: Whether and how does customer experience act as mediator between packaging and consumers' purchase intention at the point-of-sale for healthy juice.

In order to answer this question, five sub research questions are formulated:

SRQ 1: *What is customer experience?*

SRQ 2: *How does customer experience stimulate purchase intention of healthy juice?*

SRQ3: *How do packaging elements stimulate customer experience?*

SRQ4: *How do packaging elements evoke the purchase intention of healthy juice?*

SRQ5: *How do packaging elements stimulate customer experience, which in turn influence the consumers' purchase intention of healthy juice at the point-of-sale?*

In the subsequent sections, this thesis starts with a literature review of customer experience and its dimensions, followed by a literature review about the role and elements of packaging. Then continues with the hypotheses and conceptual model, the methodology, results, discussion, further recommendation and conclusion respectively.



## 2 Theoretical framework

In order to answer the main research question and the sub-questions, a literature review of the concept and dimensions of customer experience and a review about the role and elements of packaging were presented. Followed by several hypotheses developed concerning the research questions.

### 2.1 Customer experience

Since the publication of Pine and Gilmore's 'Welcome to the experience economy' (1998), creating customer experience became a new way to create value for both companies and consumers (Neher et al. 2012; Pine and Gilmore 1998; Skard et al. 2011). Pine and Gilmore (1998) claimed that 'as goods and services becomes commoditized, the customer experiences that companies create will matter most' (p.97) (Pine and Gilmore 1998) (Skard et al. 2011). However, this concept is not completely new. Holbrook and Hirschman (1982) already introduced the basic idea of customer experience in marketing (Holbrook and Hirschman 1982). This perspective means a shift from a cognitive perspective of consumers as rational economic decision maker, to a more holistic perspective of both rational and emotional decision making (Skard et al. 2011). Consumers are not merely rational information seekers; their decision-making process is also influenced by their feelings and emotions. Creating memorable/positive customer experience underlies the creation of customer value, which in turn increase consumers' purchase intention or positive attitude to products/organizations (Holbrook 2006; Neher et al. 2012).

#### 2.1.1 Definition

The notion of customer experience has been widely used in the applied and scientific literature of experiential marketing. But it was framed in different words and thus did not have a unified definition. Different definitions share the idea that experiences stem from interactions or activities between a person and physical objects or services (Neher et al. 2012). Several researchers used the concept customer experience. Gentile et al. (2007) indicated that the customer experience originates from interactions between a customer and a product, a company, or part of its organization, which provoke a reaction (Gentile et al. 2007). Biedenbach and Marell (2010) defined customer experience as the result of the customer's interpretation of his or her total interaction with the brand and perceived value of this encounter (Biedenbach and Marell 2010). The concept of brand experience is also commonly used in literature. For example, Brakus et al. (2009) defined brand experience as subjective, internal consumer responses (sensations, feelings, and cognitions) and behavioural responses evoked by brand-related stimuli that are part of a brand's design and identity, packaging, communications, and environments (Brakus et al. 2009). To strengthen the interaction between customer and salespeople within the retailing environment, some researchers used the concept service experience. For example, Hui and Bateson (1991) defined service experience as the consumer's emotional feelings during the service encounter (Hui and Bateson 1991). Mascarenhas et al. (2006) used the term total customer experience (TCE), which is defined as a totally positive, engaging, enduring, and socially fulfilling physical and emotional customer experience across all major levels of one's consumption chain and one that is brought about by distinct market offering that calls for active interaction between consumers and providers (Mascarenhas et al. 2006).

In this thesis, we will use the term customer experience, using the following definition: *Customer experience* can be defined as *the internal and behavioural reaction of consumers evoked by the interaction of them with a product, a brand, the service, the company, or part of its organization* (Brakus et al. 2009; Gentile et al. 2007; Verhoef et al. 2009).

### 2.1.2 Dimension

Researchers divided customer experience into different dimensions (Brakus et al. 2009; Gentile et al. 2007; Holbrook 2006; Schmitt 1999; Sheth et al. 1991). Generally speaking, there are six dimensions of customer experience: sensory dimension, affective dimension, cognitive dimension, social dimension, behavioural dimension and functional dimension (Table 1).

The *Sensory dimension* of customer experience is related to the sensory pleasure that is derived from stimulation through sensory cues. The sensory pleasure is derived from human senses through sight, sound, taste, smell and touch (Gentile et al. 2007; Neher et al. 2012). A product that is beautiful, makes favourable sounds, tastes great, smells nice, or feels comfortable to touch provides people with a positive sensory dimension of customer experience.

The *Affective dimension* of customer experience is related to the arousal of emotional states (Neher et al. 2012; Sheth et al. 1991). The affective dimension of customer experience includes feelings, moods and emotions such as passion or joy. For example, a product that has the ability to stimulate consumers' associations with affective content would trigger consumers' perception of the affective dimension of customer experience.

The *Cognitive dimension* of customer experience relates to the activation of the cognitive process, such as activation of knowledge, thinking and imagination. This can be stimulated while consumers are processing the information related to the products, such as the content and the technology information.

The *Behavioural dimension* of customer experience is created through the affirmation of one's values and beliefs. This is mostly expressed through the adaptation of certain lifestyle or behaviour (Gentile et al. 2007; Neher et al. 2012). The behavioural dimension of customer experience is stimulated when consuming certain products that fit into one's favourable lifestyle. For example, this dimension of customer experience is stimulated for an environmental friendly people to consume organic food products.

The *Social dimension* of customer experience comes from the confirmation of one's social identity (Gentile et al. 2007; Neher et al. 2012). To be accepted and be perceived positively by the members in one's social group is the source of this dimension. The consumption of products can stimulate one's social dimension of customer experience when the consumption acts as a means to be perceived positively by a social group (Holbrook 2006).

The *Functional dimension* of customer experience is related to the functional element or pragmatic factor of doing things (Gentile et al. 2007; Neher et al. 2012). Concepts that are related to this dimension are usability (e.g. handling of the packaging), price, convenience (e.g. easy to cook) or functionality (e.g. satisfaction of thirst).

Table 1 Dimensions of Customer Experience

	Sensory	Affective	Cognitive	Social	Behavioural	Functional
<b>Sheth et al. 1991</b>		Emotional	Epistemic	Social value	Conditional	Functional
<b>Schmitt 1999</b>	Sense	Feel	Think	Relate	Act	
<b>Holbrook 2006</b>	Hedonic			Social	Altruistic	Economic
<b>Gentile et al. 2007</b>	Sensory	Emotional	Cognitive	Relational	Lifestyle	Pragmatic
<b>Brakus et al. 2009</b>	Sensory	Affective	Intellectual		Behavioural	

## 2.2 Packaging

### 2.2.1 Role of packaging

In general, packaging has three roles. The first role of packaging is based on its technical aspect, which is to protect the products inside (Kuvykaite et al. 2009). The second role is the logistical role, to facilitate the distribution process (Vilnai-Yavetz and Koren 2013). The third role, to which marketing experts and manufacturers pay a great deal of attention, is the marketing role. The packaging of products attracts consumers' attention to the product, communicate with the consumers about the information of the products, position the product in consumers' mind and differentiate the product among similar products that within the same category. Through these functions, packaging influences consumers' attitudes to the products (Ampuero and Vila 2006; Butkeviciene et al. 2008; Silayoi and Speece 2004; Underwood et al. 2001).

Packaging is an intermediary for consumer communication and branding (Silayoi and Speece 2007). Hawkes (2010) stated that in the food industry packaging is a medium that can change consumers' attitudes in relation to a food brand and affect their buying intentions and decisions. This is because the packaging communicates to consumers when they are making the purchase decisions, through the cues conveyed by the package, such as the attractive colour, the vivid image, the health claims and brand identity (Hawkes 2010). Moreover, Silayoi and Speece (2004) named packaging as 'the salesman on the shelf' to emphasize its marketing power (Silayoi and Speece 2004). Packaging functions as an integrated marketing strategy, which includes the '4Ps' of marketing matrix: the package is part of the *product*, package communicates to consumers about the products' attributes as part of *public relations*, and often functions as the inference of *price* prediction for consumers, while also bearing *promotions* (Hawkes 2010).

### 2.2.2 Packaging elements

Among the literatures of packaging design from marketing point of view, packaging elements were classified in different ways (Kuvykaite et al. 2009). Grouping packaging elements into visual and verbal/informational elements has often been done in literature. For example, Silayoi and Speece (2004) classified the packaging elements into visual (e.g. shape, size and colour) and informational

elements (e.g. nutrition labels and brand information)(Silayoi and Speece 2004). Butkeviciene, Stravinskiene and Rutelione (2008) categorized packaging elements into nonverbal components (e.g. colour, form, size, imageries, graphics, materials and smell), verbal components (e.g. name, brand, producer/country of origin and instructions of consumption) and packaging features (such as simplicity and innovativeness) (Butkeviciene et al. 2008). Kuvykaite, Dovaliene and Navickiene (2009) also divided packaging elements into two categories: visual (e.g. graphic, colour, size, form) and verbal (e.g. product information, producer, country-of-origin, brand) elements (Kuvykaite et al. 2009).

In this thesis, the packaging elements of fruit juice product was divided into informational and visual elements according to Silayoi and Speece (Silayoi and Speece 2004). Moreover, as the desired outcome is the purchase intention for healthy fruit juice, the packaging elements we take into consideration were meant to have influence on people to make healthy choice and can be manipulated to achieve a better customer experience (Murphy et al. 2000).

In the following section, we develop specific hypotheses for three types of packaging elements, namely front-of-pack (FOP) label, nutrition and health claims, and image, concerning their influence on the dimensions of customer experience and consumers' purchase intention.

## 2.3 Hypotheses

### 2.3.1 FOP nutrition label

Nutrition label of food products provides consumers with information about nutrient content of the products. Mainly there are four kinds of nutrition labels: nutrition tables, labels based on Guideline Daily Amounts (GDA's), multiple traffic light (MTL) labels and signpost logos (e.g. Healthy Choice Tick) (van Herpen and Trijp 2011).

These types of nutrition labels differ in two aspects: the position on the pack and the 'directiveness' level to provide information of healthiness (Hodgkins et al. 2009). Nutrition tables have already been widely used in food markets around the world. This type of nutrition label provides consumers with complete nutritional content information of the product and is normally on the back of the pack. But it does not provide consumers with an overall interpretation about the healthiness of the product, namely non-directive information. Different from nutrition tables, the other three kinds of labels are front-of-pack (FOP) labels. Specifically, GDA's labels show the amount of certain nutrients the product contains, and shows the portion of daily need of the nutrients, based on guideline daily amount. Multiple traffic light labels also contain nutrients in a fixed portion, filled with red (means high), amber (means medium) and green (means low) colour, indicating the healthiness level of the food product in each nutrient category. These two kinds of labels are semi-directive. They provide the consumers with information about the underlying nutrients based on specific standards, whilst leaving the consumers to make the overall evaluation of the healthiness. Besides, signpost logos/health logos are only given to food products that are authorized as a 'healthy choice'. This kind of label tells consumers directly if the product is healthy or not, so this is a directive label (Hodgkins et al. 2009).

Consumers generally state they like the FOP label and are likely to use it in their decision-making process (van Herpen and Trijp 2011). However, according to Feunekes et al (2008), simpler FOP labels (e.g. healthy choice tick) are more suitable than more complicated FOP labelling (e.g. MTL) in a shopping environment, as they require less time for information processing. The complex detailed

labels provide consumers with information on key nutrients, whilst the simple labels provide consumers with an evaluation of the overall healthiness of the product, thus reducing consumers' cognitive effort (Feunekes et al. 2008; Scott and Worsley 1994).

According to the research results from the pan-European project FLABEL (Food Labelling to Advance Better Education for Life), consumers' attention to the nutrition labels on the food package on average is between 25 and 100 milliseconds. Such a short period is not enough for consumers to interpret the nutrient information thoroughly. Among all the nutrition labels, the health logo label can increase consumers' attention and use of the nutrition label (FLABEL 2012).

In this research, 'healthy choice' logo was chosen as one element of packaging. Because it is efficient in increasing consumers' attention and it directly relate the product to healthiness (Figure 1).



Figure 1 FOP label

The healthy choice label provides consumers with the certification of healthiness of the product, so it leads to the association of healthy lifestyle. According to Gentile et al (2007), the behavioural dimension of customer experience stems from the confirmation of the values and beliefs of the person through the acceptance of a lifestyle or behaviours. The behavioural component is provided when the consumption of the product becomes a mean to adhesion to the values the product/brand bear (Gentile et al. 2007).

**H1:** The package with healthy choice logo will trigger higher behavioural dimension of customer experience than package without the healthy choice logo.

Social dimension of customer experience emphasizes the relationship between the person and his/her social context, and his/her relationship with other people or also the ideal self (Gentile et al. 2007). This dimension comes from the confirmation of one's social identity (Smith and Colgate 2007). The consumption of products which bear the healthy choice label would remind the consumers with a healthy self-image, which would potentially be supported by his/her social group.

**H2:** The package with healthy choice logo will trigger higher social dimension of customer experience than package without the healthy choice logo.

### 2.3.2 Nutrition and health claims

Nutrition and health (NH) claims, as part of packaging, act as tools for consumer communication about information on food products (Leathwood et al. 2007). Consumers state that they use health claims when making purchase decisions (Williams 2005). Categorised by the European Commission (Regulation (EC) No 1924/2006), mainly there are three types of NH claims: 1) Nutrition claims, which state, suggest or imply that a food has particular beneficial properties due to its composition (regarding energy or a particular nutrient). For example, 'This product is enriched with calcium'; 2) Health claims, which state, suggest or imply that a relationship exists between a food or one of its

components and health. For example, 'Calcium can help build strong bones'; 3) 'Reduction of disease risk' claims are any claim that states or implies that the consumption of a food or of its constituents reduces a risk factor in the development of a human disease. For example, 'This product is enriched with calcium, so it can reduce risk in the development of osteoporosis' (EU-Lex 2007; Verbeke et al. 2009; Wills et al. 2012).

The claims influence consumers' choices for healthy products, so the claims are under regulation of European Commission. The claims need to be approved by the European Food Safety Authority (EFSA). The claims can only be permitted if they are based on scientific evidence and can be easily understood by average consumers (EU-Lex 2007).

In the search for NH claims concerning vitamin C, there are several approved health claims and no approved reduction of disease risk claims (EU-Lex 2012; EU-Lex 2011). So in this thesis, we are going to investigate the presence of health claim on product packaging (Table 2).

**Table 2 Nutrition and Health (NH) Claim**

Product concept	Health claim
<b>Orange juice</b>	Vitamin C contributes to the normal function of the immune system

NH claims can be seen as an educational tool that would have positive impact on consumers' behaviour and nutrition awareness (Williams 2005). Consumers need cognitive effort to process the information provided by the NH claims. The cognitive component of customer experience is connected with thinking or conscious mental processes, which include activities such as imagination and knowledge building. So NH claims have positive influence on purchase intention through cognitive dimension of customer experience.

**H3:** The package with health claim will trigger higher cognitive dimension of customer experience than package without the health claim.

The health claim and reduction of disease risk claim can also be framed as promotion claim and prevention claim. The promotion claim focuses on 'the desirable end states that would result from benefits gained' and the prevention claim focuses on 'the undesirable end states that would result from benefits lost' (Lee and Aaker 2004). Correspondingly, the health claim can be seen as a gain-framed promotion claim, because it focuses on the pursuit of gains; while reduction of disease risk claim can be seen as a loss-framed prevention claim, as it focuses on avoidance of losses.

The promotion and prevention claim differ in the emotional reaction of people. According to Lee and Aaker (2004), a gain-framed promotion would stimulate higher eagerness (positive emotional reaction) of people; while a loss-framed prevention claim would result in higher vigilance (negative emotional reaction, e.g. fear) of people (Lee and Aaker 2004).

**H4:** The package with health claim will trigger higher affective dimension of customer experience than package without the health claim.

### 2.3.3 Images

The research from Silayoi and Speece (2004; 2007) showed that graphics is an important packaging element for consumers in their decision-making process, especially for consumers with high time pressure or low involvement. This is because graphical components have greater imagery-evoking ability and are more vivid (Bone and France 2001; Silayoi and Speece 2007; Silayoi and Speece 2004).

What Silayoi and Speece (2004) referred to as graphics is the combination of layout, colour, typography, and photography (Silayoi and Speece 2004). In this thesis, we want to focus on how product photography influences customer experience.

In the research of Ampuero and Vila (2006), they named product photography as image. They classified image into two categories: image nature (the product is represented by photography or cartoon picture) and image motive (the image of material of the product or a picture of happy people) (Ampuero and Vila 2006). However, consumers prefer realistic images to abstract images (Underwood et al. 2001), so we are not going to investigate the difference between the photography and cartoon picture. Moreover, as all the juice products available in the market have the photography of material (e.g. orange) on the package, we will only focus on whether adding a picture of people would influence the purchase intention or not. And the image of fruit would be part of the background.

Consumers are likely to imagine how a product 'looks, tastes, feels, smells, or sounds' when they process the visual picture on products (Underwood et al. 2001). For example, in the research of Hollywood et al. (2013), they found that the image of pouring milk into a glass made the milk product looks appetising to the participants (Hollywood et al. 2013).

The sensory pleasure achieved from the images on the package is the source of the sensory dimension of customer experience (Gentile et al. 2007). Consumers can use the image as a cue to predict the taste of the product and achieve aesthetic pleasure from the image.

Affective dimension of customer experience is related to the arousal of one's affective states, which includes moods, feelings or emotions such as joy and passion (Gentile et al. 2007). An image of people that can evoke people's affective reaction would lead to the generation of affective dimension of customer experience. Furthermore, as the packaging elements in this case are expected to trigger the healthy choice, we will choose an image of healthy people as the image variable.

**H5:** The package with image of healthy people will trigger higher sensory dimension of customer experience than package without the image of healthy people.

**H6:** The package with image of healthy people will trigger higher affective dimension of customer experience than package without the image of healthy people.

The functional dimension of customer experience stems from the practical act of doing things (Gentile et al. 2007). This dimension depends on the performance of the product, such as usability (e.g. easy to handle or open), convenience (e.g. easy to prepare) and price (e.g. money value). These are mostly expressed by the volume, shape, the instruction of use, and the producing technology etc. However, we are not interested in these attributes in this research, so we are going to leave out the investigation of functional dimension of customer experience.



Silayoi and Speece (2004) stated that the graphics and colour on the package have impact on consumers' purchase intention. Poor images can lead to the decreasing sale for many consumers, while attractive images will increase the sales (Silayoi and Speece 2004). And according to Hollywood et al. (2013), the package should signal its relevance to the needs of the consumers, so that the consumers would lower their psychological 'defences' and be more willing to buy the product. The packaging elements, namely healthy choice logo, health claim and the image of healthy people, are all relevant to the purchase intention of healthy juice. So these elements will all have positive influence on the purchase intention of healthy juice.

**H7:** The package with healthy choice logo will evoke higher purchase intention of healthy juice than package without the healthy choice logo.

**H8:** The package with health claim will evoke higher purchase intention of healthy juice than package without the health claim.

**H9:** The package with image of healthy people will evoke higher purchase intention of healthy juice than package without the image of healthy people.

**H10:** The perceived sensory dimension, affective dimension, cognitive dimension, behavioural dimension and social dimension of customer experience, mediate the impact of packaging elements on the purchase intention of healthy juice.

#### **2.3.4 Moderators**

The interpretation of both visual and informational elements on package is likely to be influenced by their way of processing information. Individuals differ in their information acquisition, their information processing strategies and the utilization of information when making decisions (Childers et al. 1985). Childers et al. (1985) named the information processing style as the style of processing (SOP). SOP was divided into three types: visual-oriented processing style, no preference in processing style, and verbal-oriented processing style (Childers et al. 1985). Similarly, Silayoi and Speece (2007) indicated that people value and use different packaging elements and this depends on whether they are image-seeking or information-seeking (Silayoi and Speece 2007). Image-seeking consumers value the visual elements of packaging, whilst information-seeking consumers value the verbal elements when making their decisions.

**H11a:** For people with visual-oriented processing style, they would perceive higher customer experience when they see the image of healthy people.

**H11b:** For people with verbal-oriented processing style, they would perceive higher customer experience when they see the healthy choice logo and the health claim.

Further, consumers' attitudes and purchase intention are likely to be influenced by the personal relevance to the product. Consumers who think health is important are more likely to use the healthy logo label than others (van Herpen and Trijp 2011). Consumers value health claims which are more personally relevant, and they have higher purchase intention for products bearing this kind of claim (van Kleef et al. 2005). Factors such as attitudes and familiarity with the product may also account for the interpretation of the information and the purchase intention (Verbeke et al. 2009).



**H12:** People with higher importance of orange juice would perceive higher purchase intention when they see the packaging elements.

## 2.4 Conceptual model

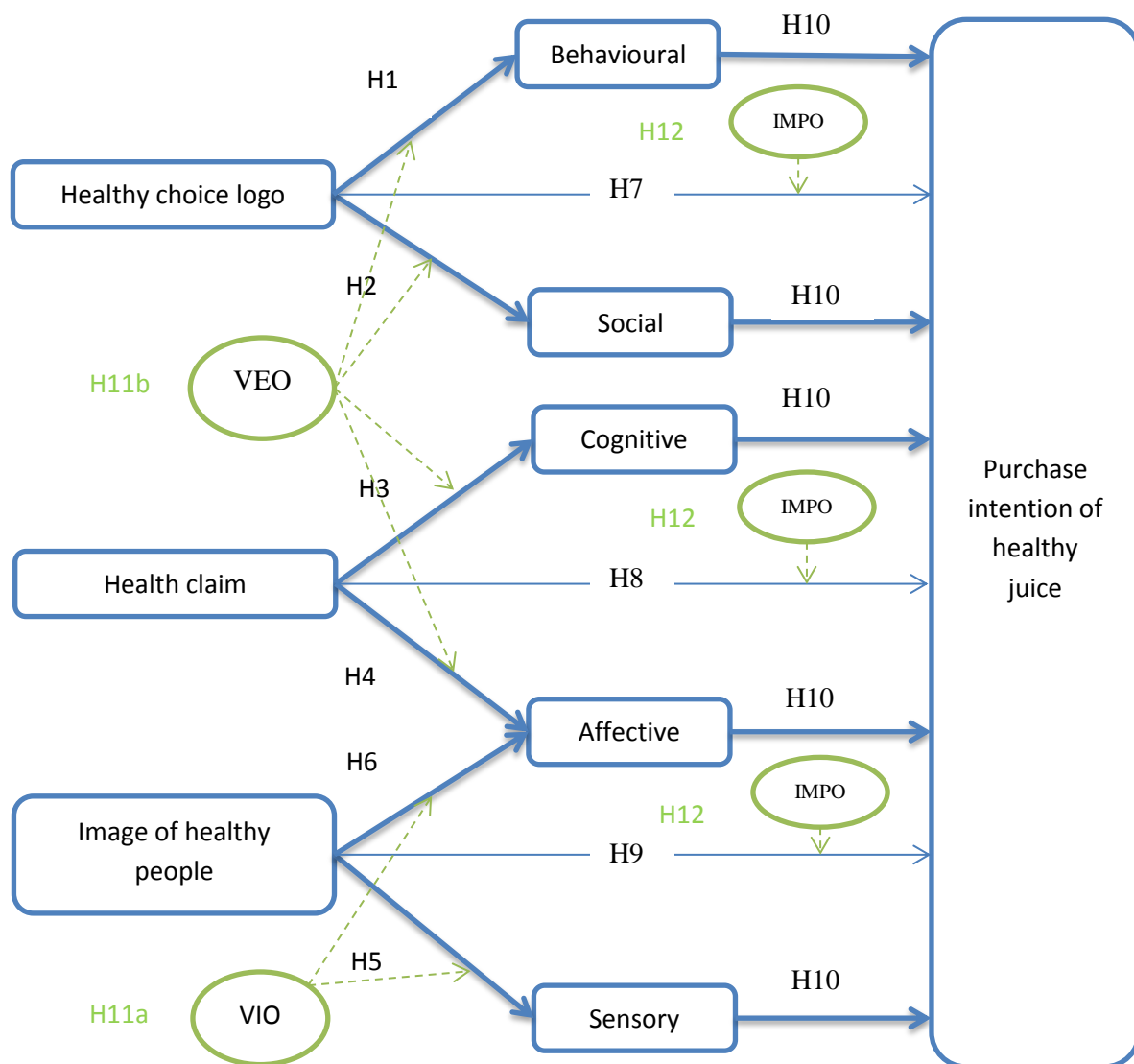


Figure 2 Conceptual Model

### 3 Methods

In order to investigate how the customer experience mediates the process of packaging elements influencing the participants' purchase intention of healthy juice, an experiment was conducted. The experiment had three essential factors used to trigger the participants' customer experience and to evaluate their purchase intention. This chapter explained the experiment in detail.

#### 3.1 Sample

The data were collected from a sample of 547 people in Wageningen University in the Netherlands, in February 2014. The target of this study were students of Wageningen University. The age of the participants ranged from 16 to 57 years old, with a mean of 23.65 (SD=3.877). The participants were randomly selected in Wageningen University, so the nationality of the participants were not under control. As a results, there were 56 nationalities in this research.

#### 3.2 Design

There were three factors with two levels in each. The factors were healthy choice logo, health claim and image of healthy people. Each of the variables has two levels: absent or present. Thus, 8 packaging profiles were generated according to a full factorial design (2×2×2) (Table 3). Each packaging photography consisted of the same background image, the same brand name (XX Brand), the same product name (Orange juice), and the same image and text colour. All the elements in each package were kept in the same position with same size. The photographs of the packaging profiles can be seen in the appendix.

In order to avoid the possible fatigue of the participants in the experiment, each participant only viewed one packaging profile. So this experiment was a between-group design.

Table 3 Packaging profiles

	Image of healthy people	Healthy choice label	Health claim
1	Yes	No	No
2	No	Yes	No
3	No	No	Yes
4	Yes	Yes	Yes
5	Yes	No	Yes
6	No	Yes	Yes
7	Yes	Yes	No
8	No	No	No

#### 3.3 Procedure

The data were collected through an Internet questionnaire, using online survey software Qualtrics. After the questionnaire was designed, the invitations of participating the online survey were published in some group pages in social network Facebook and were sent to students in Wageningen University in email.

The respondents who were willing to participate in the research clicked the link of the survey and started filling in the online questionnaire. They needed to complete two sections of the questionnaire: in the first section, the respondents needed to view one product photography showed to them and answer questions connected to the theoretical framework. They needed to indicate their perceived customer experience, perceived healthiness and purchase intention of healthy juice. The eight product packaging photographs were randomly assigned to each respondent. In the second part of the questionnaire, the respondents needed to answer questions concerning their psychographic characteristics (information processing style and personal relevance to healthy orange juice) and demographic information, without the product photography. This section was intended to measure the individual differences among the respondents.

### 3.4 Measurements

In total, there were 33 questions in the online questionnaire. Respondents rated the packaging profiles on 14 items that measure perceived customer experience, rated the perceived healthiness of the product on 2 items, rated purchase intention of healthy juice on 2 items. Another 11 items were used to measure the respondents' psychographic characteristics and 4 items were used to measure the respondents' demographic background information.

For the items measuring customer experience, perceived healthiness of the product and purchase intention of healthy juice, the respondents needed to indicate to what degree they agree with the following statements. The responses were coded using seven-point Likert scale, ranging from 'Strongly disagree' to 'Strongly agree'. The measures are as follows:

*Sensory dimension of customer experience* was measured by three items developed by Brakus et al. (2009): 'This product makes a strong impression on my visual sense or other senses'; 'I find this product interesting in a sensory way'; and 'I find this product does not appeal to my senses' (Brakus et al. 2009).

*Affective dimension of customer experience* was measured by three items developed by Brakus et al. (2009): 'This product includes feelings and sentiments'; 'I do not have strong emotions for this product'; and 'This is an emotional product' (Brakus et al. 2009).

*Cognitive dimension of customer experience* was measured by three items developed by Brakus et al. (2009): 'I engage in a lot of thinking when I encounter this product'; 'This product does not make me think'; and 'This product stimulates my curiosity and problem solving' (Brakus et al. 2009).

*Behavioural dimension of customer experience*<sup>1</sup> was measured by two items: 'This product corresponds with my lifestyle' and 'This product does not adhere to the value of my lifestyle' (Gentile et al. 2007).

*Social dimension of customer experience*<sup>2</sup> was measured by three items: 'This product enhances my self-image'; 'My consumption of this product would be perceived positively by my friends'; and 'This product helps me to achieve confirmation in my group' (Gentile et al. 2007).

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<sup>1</sup> The items used to measure behavioural dimension of customer experience of Brakus et al. (2009) are not suitable for this research. So the author developed two items to measure behavioural dimension, based on the interpretation from Gentile et al. (2007).

*Perceived healthiness* was measured by two items: 'This product is healthy' and 'This product is good for my health'.

*Purchase intention of healthy juice* was measured by two items derived from a study of Vilnai-Yavetz and Koren (2013): 'I believe that most people would like to buy this product' and 'I would purchase this product' (Vilnai-Yavetz and Koren 2013).

The items measuring psychographic characteristics of the respondents consisted of two main parts: items measuring their information processing style and items measuring their personal relevance to the orange juice (importance of orange juice and their health status).

*Style of processing (SOP)*<sup>3</sup> was measured by six items developed by Childers et al. (1985): 'I enjoy doing work that requires the use of words'; 'I enjoy learning new words'; 'I find it helps to think in terms of mental pictures when doing many things'; 'When I have forgotten something I frequently try to form a mental 'picture' to remember it'; 'I prefer activities that don't require a lot of reading'; and 'My thinking often consists of mental 'pictures' or images' (Childers et al. 1985). The response variables for SOP are four-point scale with end poles from 'Always true (1)' to 'Always false (4)'.

*Importance of orange juice (IMPO)* was measured by three items: 'How often do you drink orange juice'; 'How important orange juice is for you'; and 'How important healthy consumption is for you' (van Trijp and van der Lans 2007). One item used five-point Likert scale with end poles from 'never' to 'always', and the other two items used seven-point Likert scale with end poles from 'Not at all important' to 'Extremely important'.

*Health status* was measured by two items: 'How would you best describe your overall health'<sup>4</sup> (van Trijp and van der Lans 2007) and 'How often do you get sick'<sup>5</sup>, answered on a five-point Likert scale.

The section of demographic background information comprised four items: gender, age, nationality and if they are students in Wageningen University.

### 3.5 Data analysis

The data analysis was carried out with IBM SPSS version 20.0 (IBM 2011) statistical software. Significance was assessed at  $\alpha=0.05$ .

To find out the relative importance of packaging elements on dimensions of CE, perceived healthiness of the product and the purchase intention of healthy juice, and the relative importance of dimensions of CE on the purchase intention of healthy juice, standard multiple regression analyses were conducted. Moderator analysis was conducted using an add-on Macro PROCESS developed by Hayes in SPSS (Hayes 2013).

Moreover, in order to examine the mediating function of customer experience, mediation analysis was executed by using the causal steps approach (Baron and Kenny 1986; Judd and Kenny 1981).

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<sup>2</sup> There is no existing scale measuring social dimension of customer experience. The items used here were developed by the author, based on the interpretation of social dimension of customer experience of Gentile et al. (2007).

<sup>3</sup> Childers et al. 1985 developed a 22-item scale measuring the information processing style, which is called Style of Processing (SOP) scale. The items used to measure the information processing style in this research were selected from the 22 items, in order to avoid the fatigue of the respondents.

<sup>4</sup> Item measuring health status of the respondents using five-point Likert scale ranging from 'Poor' to 'Excellent'.

<sup>5</sup> Item measuring health status of the respondents using five-point scale ranging from 'Never' to 'Always'.

There are four steps in this approach: in the first step, a significant relation of the independent variable to the dependent variable should exist in equation 1. In the second step, a significant relation of the independent variable to the mediating variable should exist in equation 2. In the third step, the coefficient of the mediating variable should be significant, controlling for the independent variable in equation 3. In the fourth step, controlling for the mediating variable, the coefficient of the independent variable should be insignificant in equation 3 (MacKinnon et al. 2007; Vilnai-Yavetz and Koren 2013). When one or more of these relationships are not significant, it is concluded that mediation does not hold (MacKinnon et al. 2007).

$$Y = i_1 + cX + e_1 \quad (1)$$

$$M = i_2 + aX + e_2 \quad (2)$$

$$Y = i_3 + c'X + bM + e_3 \quad (3)$$

Within the equations (1-3),  $i_1, i_2, i_3$  are intercepts,  $Y$  is the dependent variable,  $M$  is the mediating variable,  $X$  is the independent variable. And  $c$  is the coefficient relating the independent variable to the dependent variable,  $a$  is the coefficient relating the independent variable to the mediating variable,  $c'$  is the coefficient relating the independent variable to the dependent variable adjusted for the mediating variable, and  $b$  is the coefficient relating the mediating variable to the dependent variable adjusted for the independent variable (MacKinnon et al. 2007).

The coefficient values and the P-values were calculated using an add-on Macro PROCESS developed by Hayes in SPSS (Hayes 2013). PROCESS uses an ordinary least squares path analytical framework to estimate the direct and indirect effects in mediator models.

## 4 Results

In this chapter, the results of the experiment are presented and explained. First the suitability of the dataset was examined, followed by a description of the dataset and reliability analysis of the indexes used to measure the constructs. Furthermore, the results of the analyses and mediation analyses are presented and explained.

### 4.1 Suitability of dataset

In order to check if the dataset is suitable for analysis, an outlier check was done. There were two stages in the outlier check: first the data of participants who are not the students of Wageningen University (N=19) was deleted, as the target of this research is the students in Wageningen University. Further, to check if there were respondents who answered all questions systematically different, a multivariate outlier analysis was conducted. Seven respondent were found to score different from the others. However, after a close inspection of the data, it was decided to keep these data in the analysis as the data did not contain very unlikely results.

### 4.2 Preliminary analysis

#### 4.2.1 Description of dataset

After the outlier analysis, 528 cases remained in the analysis, of which 196 (37.1%) were male and 332 (62.9%) were female. 523 participants filled in his/her age. These participants aged from 16 yr to 44 yr, while the average age was 23.5.

The participants were assigned randomly into eight groups (packages). The distribution of the participants in each group was showed in the following table.

**Table 4 Participants Per Condition**

	1	2	3	4	5	6	7	8	Total
<b>Frequency</b>	75	68	62	69	69	58	65	62	528
<b>Percent</b>	14.2%	12.9%	11.7%	13.1%	13.1%	11%	12.3%	11.7%	100%

One-way between-groups analysis of variance was conducted to explore whether there is systematic variance across the eight product simulations in terms of the items measuring perceived customer experience, perceived healthiness, and purchase intention of healthy juice. And the mean scores, F-values, p-values and eta squared valued were shown in Table 5.

**Table 5 ANOVA's of Items Measuring Customer Experience, Perceived Healthiness and Purchase Intention of Healthy Juice**

	P1	P2	P3	P4	P5	P6	P7	P8	F	p	$\eta^2$
	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean			
<b>Q1</b>	4.05	4.36	4.76	4.32	4.43	4.24	4.34	4.06	1.319	0.239	
<b>Q2</b>	3.64	3.72	3.81	3.80	3.68	3.75	3.71	3.64	0.124	0.997	
<b>Q3</b>	4.36	4.09	4.05	3.87	4.37	4.37	4.17	4.60	1.357	0.221	
<b>Q4</b>	3.92	3.06	3.31	4.10	3.77	3.02	4.11	3.05	5.611	<0.05	0.07
<b>Q5</b>	5.08	5.04	5.03	4.99	5.33	5.47	5.38	5.45	1.146	0.333	
<b>Q6</b>	2.95	2.60	2.40	2.91	2.74	2.17	2.86	2.35	2.489	<0.05	0.03
<b>Q7</b>	2.99	2.50	3.00	2.68	2.94	2.42	2.52	2.19	2.719	<0.05	0.04
<b>Q8</b>	4.49	4.84	4.13	4.51	4.58	5.29	4.43	5.27	4.029	<0.05	0.05
<b>Q9</b>	2.57	2.26	2.92	2.52	2.78	2.22	2.46	2.29	2.013	0.052	
<b>Q10</b>	3.57	3.24	3.48	3.96	3.86	3.31	3.92	3.16	2.689	<0.05	0.04
<b>Q11</b>	3.99	4.04	4.26	3.78	3.97	4.59	3.85	4.74	3.502	<0.05	0.05
<b>Q12</b>	3.01	2.76	3.18	3.22	2.64	2.60	3.02	2.35	2.977	<0.05	0.04
<b>Q13</b>	3.99	3.96	3.90	4.06	3.93	3.88	4.18	3.98	0.406	0.899	
<b>Q14</b>	2.49	2.76	2.73	2.85	2.61	2.59	2.78	2.63	0.599	0.757	
<b>Q15</b>	4.51	4.41	4.45	4.87	4.59	4.55	4.74	4.31	1.010	0.423	
<b>Q16</b>	4.40	4.38	4.42	4.61	4.57	4.62	4.70	4.31	0.623	0.737	
<b>Q17</b>	4.03	4.09	4.37	4.38	3.83	4.47	4.31	3.95	2.156	<0.05	0.03
<b>Q18</b>	3.13	3.66	3.77	3.67	3.33	3.47	3.83	3.21	1.752	0.095	

There was a significant effect of the three packaging elements on Q4 ( $F(7,519)=5.611$ ,  $P<0.05$ ,  $\eta^2=0.07$ ) and Q6 ( $F(7,518)=2.489$ ,  $P<0.05$ ,  $\eta^2=0.03$ ) which were intended to measure the affective dimension of customer experience; on Q7 ( $F(7,519)=2.719$ ,  $P<0.05$ ,  $\eta^2=0.04$ ) and Q8 ( $F(7,519)=4.029$ ,  $P<0.05$ ,  $\eta^2=0.05$ ) which were intended to measure the cognitive dimension of customer experience; on Q10 ( $F(7,518)=2.689$ ,  $P<0.05$ ,  $\eta^2=0.04$ ) and Q11 ( $F(7,518)=3.502$ ,  $P<0.05$ ,  $\eta^2=0.05$ ) which were intended to measure the behavioural dimension of customer experience; on Q12 ( $F(7,519)=2.977$ ,  $P<0.05$ ,  $\eta^2=0.04$ ) which was intended to measure the social dimension of customer experience; and on Q17 ( $F(7,517)=2.156$ ,  $P<0.05$ ,  $\eta^2=0.03$ ) which was intended to measure the purchase intention of healthy juice.

#### 4.2.2 Constructs

Most of the measures used in the experiment were derived from other researches, so exploratory factor analysis was used to verify the structure of the measures. Principal component analysis (PCA) was conducted on the 18 items (items measuring participants' perception of the product) with both orthogonal rotation (varimax) and oblique rotation (direct oblimin). Both results verified the structure of the scales. Principal component analysis (PCA) was also conducted on the 11 items (items measuring individual differences) with both orthogonal rotation (varimax) and oblique rotation (direct oblimin). Both results basically verified the structure of the scales. But one item (Q27) was deleted in order to purify the structure. The factor loadings after rotation were displayed in the appendix.

In order to check the reliability of the scales, the Cronbach's alpha was used. The Cronbach's alpha estimates if the items in one scale measures the same construct. If the Cronbach's alpha value is not

acceptable ( $<0.7$ ), items can be deleted in order to get a higher Cronbach's alpha, thus a higher reliability of the scale.

Table 6 shows the constructs, the amounts of items used in the questionnaire and corresponding Cronbach's alpha, the mean and the standard deviation. Moreover, when the Cronbach's alpha can be increased by deleting items, new alpha value and the corresponding new mean and standard deviation were presented.

Two constructs were more reliable with fewer items. Affective dimension of CE Scale had a good internal consistency after deleting one item ( $\alpha = 0.720$  with item Q5 deleted). And the Style of Processing Scale had a good internal consistency after deleting three items ( $\alpha = 0.771$  with items Q19, Q20, Q23 deleted).

Two constructs, the Social Dimension of CE Scale ( $\alpha = 0.638$ ) and the Purchase Intention of Healthy Juice Scale ( $\alpha = 0.691$ ), did not have good enough internal consistency. But these two scales were still kept in the further analysis, as they were derived from other researches and the internal consistency would not increase after deleting items.

The Health Status Scale did not have a satisfying internal consistency ( $\alpha = 0.515$ ). Item Q28 was derived from another research and it was positively framed. Compared to that, item Q29 was not derived from existing researches and it was negatively framed. So item Q29 was deleted, which means item Q28 was used as the measure of health status in the analysis.

**Table 6 Cronbach's Alpha of Constructs**

Constructs	Amount of items in construct in experiment	Cronbach's Alpha	Deleted item (number)	Cronbach's Alpha after deleted item	M	SD
<b>Sensory Dimension of CE (SE)*</b>	3	0.793			11.79	3.928
<b>Affective Dimension of CE (AF)*</b>	3	0.673	1	0.720	6.19	2.801
<b>Cognitive Dimension of CE (CO)*</b>	3	0.769			8.49	3.751
<b>Behavioural Dimension of CE (BE)*</b>	2	0.807			7.43	2.820
<b>Social Dimension of CE (SO)*</b>	3	0.638			9.52	3.024
<b>Perceived Healthiness of Product (PH)*</b>	2	0.940			9.05	2.799
<b>Purchase Intention of Healthy Juice (PI)*</b>	2	0.691			7.66	2.576
<b>Style of Processing (SOP) **</b>	6	0.577	3	0.771	5.98	1.715
<b>Importance of Orange Juice (IMPO)***</b>	2	0.778			6.71	2.254
<b>Health Status (HS)****</b>	2	0.551			7.21	1.203



\* Using seven-point Likert scale

\*\* Using four-point scale

\*\*\* Two items in this scale use five-point Likert scale and seven-point Likert scale separately

\*\*\*\* Using five-point Likert scale

### 4.3 Results of hypotheses

In order to analyse whether purchase intention of healthy juice is influenced by customer experience (CE), a bivariate analysis between dimensions of CE and with purchase intention was conducted. The following table indicated that there were positive relationship among the dimensions of CE and there was a positive relationship between the dimensions of CE and the purchase intention of healthy juice, with high levels of purchase intention of healthy juice associated with higher dimensions of CE.

Table 7 Pearson Correlations between Measures of Dimensions of CE and with Purchase Intention of Healthy Juice

Scale	1	2	3	4	5	6
<b>1 Sensory dimension of CE</b>	-					
<b>2 Affective dimension of CE</b>	0.340**	-				
<b>3 Cognitive dimension of CE</b>	0.358**	0.439**	-			
<b>4 Behavioural dimension of CE</b>	0.357**	0.165**	0.234**	-		
<b>5 Social dimension of CE</b>	0.361**	0.271**	0.326**	0.476**	-	
<b>6 Purchase intention of healthy juice</b>	0.583**	0.199**	0.325**	0.426**	0.480**	-

\*\*p<0.001 (2-tailed).

Then, in order to analyse how purchase intention of healthy juice is influenced by customer experience (CE), a standard multiple regression analysis was conducted using purchase intention of healthy juice (PI) as dependent variable, and using dimensions of CE (SE,AF,CO,BE,SO) as independent variables. The results were presented in Table 9.

The results again verified that all five dimensions of CE had influence on purchase intention of healthy juice. The sensory dimension, social dimension, behavioural dimension and cognitive dimension of CE had positive influence on purchase intention of healthy juice, whereas affective dimension of CE had negative influence on purchase intention of healthy juice.

As the relation between affective dimension of CE and purchase intention of healthy juice is different in two circumstances (positive in bivariate context and negative in multivariate analysis), the possibility of multicollinearity among the predictors were detected. However, no multicollinearity was found. Then the partial correlation values were checked, and this value of affective dimension of CE was found to be negative (Table 8). It was possible that the affective dimension of CE get affected by other dimensions of CE in influencing PI. Specifically, the affective dimension individually has negative influence on PI. But it has positive influence on PI via the effects of other dimensions. In the context of multivariate analysis, the partial correlation values which control for the effects of other variables are more suitable. So the relation of affective dimension of CE between PI was negative.

**Table 8 Partial Correlation Between Dimensions of CE and PI**

	Sensory	Affective	Cognitive	Behavioural	Social
PI	0.453	-0.092	0.102	0.164	0.266

In order to find out how the packaging elements (image of healthy people, healthy choice logo and health claim) influence each dimension of CE, perceived healthiness and purchase intention of healthy juice, several standard multiple regression analyses were carried out. The results were presented in Table 9.

The results indicated that the sensory dimension, social dimension of CE and perceived healthiness of the product cannot be explained by the packaging elements. Though the other three dimensions of CE and purchase intention of healthy juice can be explained by the packaging elements, the explanatory power was weak. This weak power may resulted from the nature of the between-group experiment. Thus, in order to correct the effects of the psychographic characteristics (style of processing, importance of orange juice and health status) and demographic information, and to examine the hypotheses of the style of processing and importance of orange juice, these variables would be included in the next stage of analysis.

Table 9 Standardized Regression Coefficients, P-values and Model Summary Information for the CE Influence PI Model and Packaging Elements Influence CE Models

Consequent																
	PI		Sensory		Affective		Cognitive		Behavioural		Social		PI		PH	
Antecedent	$\beta$	p	$\beta$	p	$\beta$	p	$\beta$	p	$\beta$	p	$\beta$	p	$\beta$	p	$\beta$	p
Sensory	0.438	0.000														
Affective	-0.079	0.038														
Cognitive	0.089	0.022														
Behavioural	0.145	0.000														
Social	0.246	0.000														
Image			-0.002	0.955	0.239	0.000	0.064	0.145	0.116	0.007	0.169	0.000	-0.031	0.470	0.055	0.207
Label			0.034	0.437	0.020	0.635	0.056	0.197	-0.086	0.047	0.053	0.224	0.110	0.012	0.057	0.194
Claim			0.067	0.130	-0.019	0.647	0.010	0.815	0.070	0.105	0.031	0.479	0.058	0.180	0.046	0.295
	R <sup>2</sup> =0.448 F(5,503)=81.657 p=0.000		R <sup>2</sup> =0.006 F(5,510)=0.972 p=0.406		R <sup>2</sup> =0.057 F(3,521)=10.542 p=0.000		R <sup>2</sup> =0.027 F(3,522)=4.792 p=0.003		R <sup>2</sup> =0.032 F(3,520)=5.665 p=0.001		R <sup>2</sup> =0.007 F(3,521)=1.244 p=0.293		R <sup>2</sup> =0.017 F(3,519)=2.929 p=0.033		R <sup>2</sup> =0.008 F(3,522)=1.438 p=0.231	

### *The influence of packaging elements on dimensions of customer experience*

In this part, the influence of packaging elements on dimensions of customer experience are explained. The standardized regression coefficients, P-values and R square values from the multiple regression analyses of packaging elements (image of healthy people, healthy choice logo and health claim) influencing dimensions of customer experience were displayed in Table 11.

It was expected that healthy choice logo has positive influence on behavioural and social dimensions of customer experience. However, this was not verified by the results of the multiple regression analysis (Behavioural:  $\beta=0.051$ ,  $p=0.230$ ; Social:  $\beta=0.054$ ,  $p=0.216$ ). So Hypothesis 1 and Hypothesis 2 were not verified to be true.

It was expected that health claim has positive influence on cognitive and affective dimensions of customer experience. However, this was also not verified by the results of the multiple regression analysis (Cognitive:  $\beta=0.073$ ,  $p=0.095$ ; Affective:  $\beta=-0.002$ ,  $p=0.963$ ). To conclude, Hypothesis 3 and Hypothesis 4 were not verified to be true.

It was expected that image of healthy people has positive influence on the affective and sensory dimensions of customer experience. Image of healthy people was not found to have positive influence on the sensory dimension of customer experience ( $\beta=0.000$ ,  $p=0.998$ ). Thus, Hypothesis 5 was not verified to be true. The results of the multiple regression analysis indicated that image of healthy people has positive influence on the affective dimension of customer experience ( $\beta=0.245$ ,  $p<0.05$ ). So Hypothesis 6 holds.

### *The influence of packaging elements on purchase intention of healthy juice*

The results from the multiple regression analyses of packaging elements influencing dimensions of customer experience was displayed in Table 11. It was expected that the three packaging elements have positive influence on purchase intention of healthy juice. However, positive influence was not found in health claim and image of healthy people influencing purchase intention of healthy juice (Health claim:  $\beta=0.059$ ,  $p=0.170$ ; Image of healthy people:  $\beta=-0.027$ ,  $p=0.529$ ). Only healthy choice label was found to have positive influence on purchase intention of healthy juice ( $\beta=0.108$ ,  $p<0.05$ ). So Hypothesis 7 holds, but Hypothesis 8 and Hypothesis 9 were not verified to be true.

### *CE as mediator in the process of packaging elements influencing purchase intention of healthy juice*

In this part, the results of the mediation analysis were explained. Results of the mediation analysis were shown in the appendix.

According to the causal steps approach, the mediation analysis was only applicable when there was effect of the independent variable on the dependent variable, and effect of the independent variable on the mediator. So the mediation analysis was carried out on three variables (independent variable: healthy choice label, mediator: cognitive dimension of CE, dependent variable: purchase intention of healthy juice). The results were displayed in Table 10.

In step 1 of mediation analysis, the regression of healthy choice logo on purchase intention of healthy juice, ignoring the mediators (dimensions of CE), was significant ( $B=0.1780$ ,  $p < 0.05$ ). In step 2, the regression of healthy choice logo on cognitive dimension of CE was significant ( $B=-0.2511$ ,  $p$

<0.05). In step 3, the cognitive dimension of CE, controlling for the effects of healthy choice logo, was not significant ( $B=0.0691$ ,  $p=0.0944$ ). Thus, the cognitive dimension of CE was not found to mediate the relationship between healthy choice logo and the purchase intention of healthy juice. So Hypothesis 10 was not verified to be true.

**Table 10 Model Summary of Mediation Analysis with Healthy Choice Label as Independent Variable, Cognitive Dimension of CE as Mediator**

Consequent								
M (Cognitive)					Y (PI)			
Antecedent		Coeff.	SE	p		Coeff.	SE	p
<b>X (Label)</b>	$a_3$	-0.2511	0.1129	0.0266	$c'$	0.1780	0.0874	0.0422
<b>M (Cognitive)</b>					$b$	0.0691	0.0412	0.0944
<b>C<sub>1</sub> (Age)</b>	$f_1$	0.0075	0.0154	0.6249	$g_1$	-0.0194	0.0119	0.1030
<b>C<sub>2</sub> (Gender)</b>	$f_2$	-0.0853	0.1176	0.4688	$g_2$	-0.0099	0.0899	0.9125
<b>C<sub>3</sub> (SOP)</b>	$f_3$	-0.1729	0.0989	0.0811	$g_3$	-0.0974	0.0761	0.2013
<b>C<sub>4</sub> (IMPO)</b>	$f_4$	0.1627	0.0509	0.0015	$g_4$	0.1197	0.0401	0.0030
<b>C<sub>5</sub> (HS)</b>	$f_5$	-0.0084	0.0718	0.9068	$g_5$	-0.0766	0.0553	0.1669
<b>Constant</b>	$i_{M_3}$	2.7503	0.5617	0.0000	$i_Y$	1.1345	0.4538	0.0128
$R^2 = 0.0424$					$R^2 = 0.4748$			
$F(6,479) = 3.5330$ $P=0.0020$					$F(11,474) = 38.9585$ $P=0.0000$			

#### *Style of processing moderates how packaging elements trigger dimensions of CE*

It was expected that respondents with visual-oriented processing style would perceive higher customer experience when they see the image of healthy people. It was also expected that respondents with verbal-oriented processing style would perceive higher customer experience when they see the healthy choice logo and the health claim.

The results of the multiple regression of packaging elements influencing dimensions of customer experience show that the interaction term of healthy choice logo and style of processing (SOP) had statistically significant influence on the sensory dimension and affective dimension of CE (Sensory dimension:  $\beta = -0.133$ ,  $p < 0.05$ ; affective dimension:  $\beta = -0.126$ ,  $p < 0.05$ ). SOP was a continuous variable. According to Childers (1985), the lower level of SOP represented visual-oriented processing style (VIO), the medium level of SOP represented no preference of processing style (NP), and the higher level of SOP represented verbal-oriented processing style (VEO) (Childers et al. 1985). The interaction effect of SOP and healthy choice logo was plotted in Figure 3.

Figure 3a shows an enhancing effect that the perceived sensory dimension of CE increased when there was a healthy choice label on the package for the respondents with visual oriented (VIO) processing and no preference of processing style (NP), while the perceived sensory dimension of CE decreased when there was a label on the package for the respondents with verbal oriented (VEO) processing style. When there was no label on the package, respondents with VEO processing style perceived higher sensory dimension of CE than people with NP processing style and VIO processing

style. When there was a label on the package, respondents with VIO style perceived higher sensory dimension of CE than respondents with NP and VEO processing style. The interaction effect of the healthy choice label and SOP had similar pattern on the affective dimension of CE (Figure 3b).

To conclude, respondents with VEO processing style perceived lower customer experience than respondents with VIO processing style when they see the healthy choice label on the package. This was contrary to Hypothesis 11a and 11b. So Hypothesis 11a and 11b were not verified.

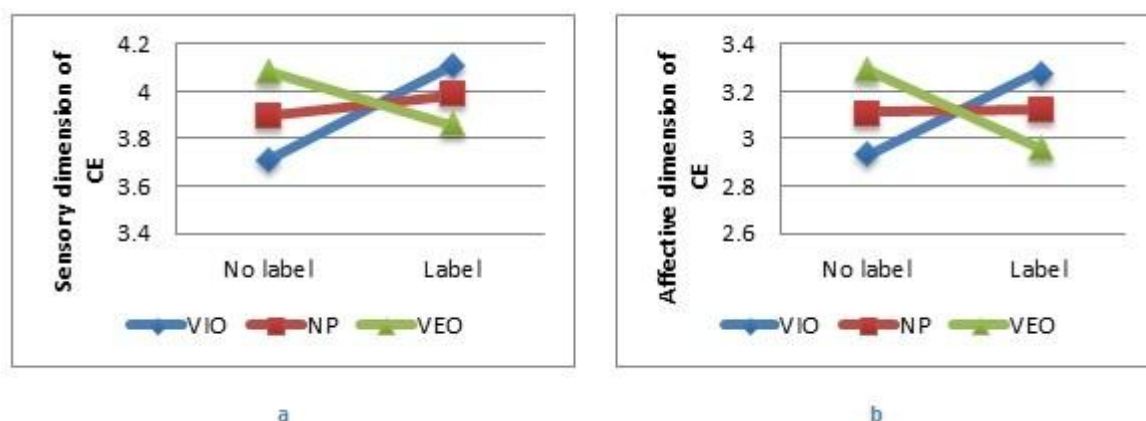


Figure 3 Interaction Effect of SOP × Label on Sensory and Affective Dimensions of CE

*Importance of orange juice moderates how packaging elements evoke purchase intention of healthy juice*

It was expected that the respondents with higher level of orange juice would perceive higher purchase intention of healthy juice.

The results in table 10 show that the interaction term of packaging elements and the importance of orange juice (IMPO) did not have statistically significant influence on the purchase intention of healthy juice (Image×IMPO:  $\beta=0.008$ ,  $p=0.849$ ; Label×IMPO:  $\beta=0.080$ ,  $p=0.061$ ; Claim×IMPO:  $\beta=0.067$ ,  $p=0.115$ ). So Hypothesis 12 was not verified to be true.

Table 11 Standardized Regression Coefficients, P-values and Model Summary Information for the CE Influence PI Model and Packaging Elements Influence PH and PI Models

Antecedent	Consequent															
	Sensory		Affective		Cognitive		Behavioural		Social		PI		PH		PI	
	$\beta$	p	$\beta$	p	$\beta$	p	$\beta$	p	$\beta$	p	$\beta$	p	$\beta$	p	$\beta$	p
<b>Image</b>	0.000	0.998	0.245	0.000	0.128	0.003	0.171	0.000	0.068	0.119	-0.027	0.529	0.066	0.115		
<b>Label</b>	0.032	0.467	0.019	0.649	-0.085	0.048	0.051	0.230	0.054	0.216	0.108	0.011	0.050	0.232		
<b>Claim</b>	0.071	0.111	-0.002	0.963	0.073	0.095	0.029	0.505	0.017	0.703	0.059	0.170	0.029	0.491		
<b>Image×SOP</b>	-0.050	0.263	0.002	0.967	-0.036	0.405	-0.081	0.059	0.039	0.367						
<b>Label×SOP</b>	-0.133	0.003	-0.126	0.003	-0.030	0.486	-0.014	0.745	-0.073	0.094						
<b>Claim×SOP</b>	0.009	0.836	0.035	0.423	0.022	0.616	0.006	0.894	-0.002	0.963						
<b>Image×IMPO</b>											0.008	0.849				
<b>Label×IMPO</b>											0.080	0.061				
<b>Claim×IMPO</b>											0.067	0.115				
<b>Sensory</b>															0.434	0.000
<b>Affective</b>															-0.069	0.073
<b>Cognitive</b>															0.073	0.062
<b>Behavioural</b>															0.135	0.001
<b>Social</b>															0.231	0.000
<b>SOP</b>	0.026	0.555	-0.005	0.904	-0.094	0.031	-0.035	0.420	-0.002	0.961	-0.050	0.244	-0.015	0.718	-0.042	0.204
<b>Importance of orange juice</b>	0.157	0.000	0.053	0.217	0.154	0.000	0.204	0.000	0.218	0.000	0.262	0.000	0.312	0.000	0.113	0.001
<b>Health status</b>	0.033	0.460	-0.022	0.607	-0.012	0.785	0.091	0.035	0.047	0.282	0.002	0.966	-0.050	0.231	-0.036	0.275
<b>Age</b>	-0.006	0.886	0.124	0.004	0.030	0.490	-0.047	0.283	-0.035	0.423	-0.054	0.216	-0.132	0.002	-0.034	0.319
<b>Gender</b>	-0.027	0.545	-0.029	0.492	-0.038	0.380	0.004	0.930	-0.023	0.592	-0.009	0.831	-0.043	0.304	0.006	0.849
	R <sup>2</sup> =0.049 F(11,495)=2.296 p=0.010		R <sup>2</sup> =0.095 F(11,504)=4.836 p=0.000		R <sup>2</sup> =0.068 F(11,504)=3.348 p=0.000		R <sup>2</sup> =0.087 F(11,504)=4.383 p=0.000		R <sup>2</sup> =0.063 F(11,504)=3.081 p=0.001		R <sup>2</sup> =0.097 F(11,504)=4.926 p=0.000		R <sup>2</sup> = 0.117 F (8,507)= 8.436 p=0.000		R <sup>2</sup> = 0.463 F (10,496)=42.83 p=0.000	

#### 4.4 Other results

When analysing the results, other potential relations came up. In this part, these results were displayed.

##### *The influence of dimensions of CE on the purchase intention of healthy juice*

The results of the regression of dimensions of CE on the purchase intention of healthy juice were displayed in Table 11. It was found that the sensory dimension ( $\beta = 0.434$ ,  $p < 0.05$ ), social dimension ( $\beta = 0.231$ ,  $p < 0.05$ ), and behavioural dimension ( $\beta = 0.135$ ,  $p < 0.05$ ) of customer experience had positive influence on the purchase intention.

##### *The influence of packaging elements on the perceived healthiness*

In Table 11, the results of the regression of packaging elements on the perceived healthiness revealed that the healthy choice label, health claim and the image of healthy people had no influence on the perceived healthiness of the product.

##### *Not predicted influence of the packaging elements on dimensions of CE*

Besides the predicted effects of packaging elements on dimensions of CE, there were some other effects. In Table 11, the image of healthy people was found to have positive influence on the cognitive dimension of CE ( $\beta = 0.128$ ,  $p < 0.05$ ) and the behavioural dimension of CE ( $\beta = 0.171$ ,  $p < 0.05$ ). The healthy choice label was found to have negative influence on the cognitive dimension of CE ( $\beta = -0.085$ ,  $p < 0.05$ ).

##### *The main effects of the psychographic characteristics and demographic information*

The importance of orange juice (IMPO) was found to have positive influence on the sensory dimension of CE ( $\beta = 0.157$ ,  $p < 0.05$ ), on the cognitive dimension of CE ( $\beta = 0.154$ ,  $p < 0.05$ ), on the behavioural dimension of CE ( $\beta = 0.204$ ,  $p < 0.05$ ), and on the social dimension of CE ( $\beta = 0.218$ ,  $p < 0.05$ ). IMPO was also found to have positive influence on the perceived healthiness of the product ( $\beta = 0.312$ ,  $p < 0.05$ ) and the purchase intention of orange juice (Packaging elements influencing PI:  $\beta = 0.262$ ,  $p < 0.05$ ; Dimensions of CE influencing PI:  $\beta = 0.113$ ,  $p < 0.05$ ).

SOP was found to have negative influence on the cognitive dimension of CE ( $\beta = -0.094$ ,  $p < 0.05$ ).

Health status was found to have positive effect on the behavioural dimension of CE ( $\beta = 0.091$ ,  $p < 0.05$ ).

Age was found to have positive effect on the affective dimension of CE ( $\beta = 0.124$ ,  $p < 0.05$ ) and negative effect on the perceived healthiness of the product ( $\beta = -0.132$ ,  $p < 0.05$ ).



## 5 Discussion

In this chapter, the answers to the following questions were given and explained: 'How does customer experience influence purchase intention of healthy juice?', 'How do packaging elements stimulate customer experience?', 'How do packaging elements evoke the purchase intention of healthy juice', and 'How do packaging elements stimulate customer experience, which in turn influence consumers' purchase intention of healthy?'. Followed by some other findings and several implications.

### 5.1 Discussion concerning main results

#### *CE influencing purchase intention of healthy juice*

Ignoring the effects of individual differences, all five dimensions of customer experience were found to have significant influence on the purchase intention of healthy juice, which corresponds to the findings of Stuart-Menteth et al. (2006). However, after controlling for the effects of individual differences, only three dimensions (sensory dimension, behavioural dimension and social dimension) of customer experience were found to have positive influence on purchase intention of healthy juice.

The finding that the affective dimension of customer experience did not have influence on the purchase intention of healthy juice conflicts with the findings of Nasermodeli et al. (2013). Nasermodeli et al. (2013) investigated how dimensions of customer experience influence purchase intention, and they found that affective dimension of customer experience had positive influence on purchase intention (Nasermodeli et al. 2013). In their research, the affective dimension was measured using descriptions of specific emotions (e.g. happy, pleased, contented and satisfied). The measures of affective dimension of customer experience were derived from the research of Brakus et al. (2009). However, they used the scale to measure perceived affective component in wellknown brands. Compared to those brands, the same measures might not have fitted that well for the simulation in our research. The measures may sound general and vague for the respondents. So modifying the measures to fit our simulation may give us the expected result that the affective dimension of customer experience influencing purchase intention of healthy juice.

In the research of Brakus et al. (2009), the cognitive dimension was expected to predict creative usages of the brand. The higher the cognitive dimension of customer experience was evoked, the higher brand loyalty of the brand would be (Brakus et al. 2009). However, in this thesis, the consequence of customer experience is purchase intention of healthy juice. Although modern consumers are paying more attention to the label information as they are more concerned about health and nutrition, they prefer more simplified information to form their purchase decisions (Silayoi and Speece 2004). This indicated that consumers prefer to spend lower cognitive effort at-the-point-of-sale. So cognitive dimension of customer experience was not found to have significant influence on purchase intention of healthy juice in our research.

#### *Packaging elements stimulating CE*

It was expected that the packaging elements would trigger different dimensions of customer experience. Hypotheses 1 to 6 stated that the healthy choice label would trigger behavioural and

social dimensions of customer experience; the health claim would trigger cognitive and affective dimensions of customer experience and the image of healthy people would trigger affective and sensory dimensions of customer experience. However, the only hypothesis that holds is that the presence of image of healthy people stimulate trigger higher affective dimension of customer experience than without the image. The reasons are discussed below.

Healthy choice label was expected to remind the respondents of the healthy lifestyle, and thus lead to higher perceived behavioural dimension of customer experience. However, this was not verified by the results. The reason of this might be that the presence of this label did not increase the perceived healthiness of the product, thus did not remind the respondents of the healthy lifestyle.

Healthy choice label was also expected to evoke social dimension of customer experience, as the consumption of orange juice with healthy choice label was expected to be a mean to be positively perceived by the respondents' social group and to confirm the respondents' social identity. However, according to Gentile (2007), the social dimension of customer experience is not salient for products with low customer involvement and customer commitment (Gentile et al. 2007). Customer commitment is the effort the customer makes to use the product, especially in terms of resources. Customer involvement is the level of importance an object means to the customer (Gentile et al. 2007). Fast moving consumer goods, such as orange juice and potato chips are products with low customer involvement and commitment. So it makes sense that the presence of healthy choice label was not found to increase the perceived social dimension of customer experience. Thus this hypothesis was wrong.

Health claim was expected to trigger higher cognitive dimension of customer experience, as processing the verbal information would increase the respondents' cognitive effort. However, this was not verified. According to Silayoi and Speece (2004), compared to informational packaging elements, visual package elements play a major role in consumers' information-processing and decision-making process (Silayoi and Speece 2004). The respondents possibly did not carefully examine the verbal information provided by the health claim. So the presence of health claim did not increase the respondents' cognitive effort, thus no higher cognitive dimension of customer experience was triggered.

Health claim was also expected to trigger higher affective dimension of customer experience, as a gain-framed promotion would stimulate more positive emotional reaction of people than a loss-framed prevention claim (Lee and Aaker 2004). This hypothesis was not verified. In this experiment, there were two levels of the variable health claim: absence or presence of the health claim. It is possible that the perceived affective dimension of customer experience did not differ that much between these two levels. According to Lee and Aaker (2004), the perceived affective dimension of customer experience differs between a gain-framed promotion claim and a loss-framed prevention claim. However, a loss-framed prevention claim such as a reduction of disease risk claim was not allowed to be used as health claim, so the comparison between these two kinds of claims has no practical meaning.

Image of healthy people had positive influence on the affective dimension of customer experience just as expected, as it reminds the respondents of positive emotions such as joy and happiness.

The presence of image of healthy people was also expected to trigger higher sensory dimension of customer experience. This was not verified. It is possible that the package background was already sensory appealing to the respondents. The presence of the chosen healthy people image was not more sensory appealing to them.

In addition, one major reason for all the hypotheses which were not significant was the nature of the between-group design. Each individual may differ in several aspects, for example, the different starting point and scoring pattern would lead to this result.

#### *Packaging elements evoking PI*

The three packaging elements were expected to evoke purchase intention of healthy juice, as they provide information that relevant to healthy (juice). However, only healthy choice label was found to have positive influence on purchase intention of healthy juice.

The main reason of why the other two hypotheses did not hold might be out of the nature of the between-group experimental design. At first the author planned to execute a within-subject design. Instead, a between-group experiment was designed to avoid the fatigue and impatience of the respondents in answering the questionnaire. However, each respondent differed in several aspects, such as the measured psychographic characteristics (importance of orange juice, style of processing and health status) and demographic information (gender and age), different pattern in scoring, preference of colour and image and so on. All these factors may affect our investigation of analysing how packaging elements influencing purchase intention.

Adding a ranking task in the end of the experiment may resolve this problem. After the respondents answered the questions concerning that product shown to them, they would be invited to rank eight packagings in terms of purchase intention of healthy juice. Then the results of this task would be used to conduct a conjoint analysis using SPSS (IBM 2011), so we would know the relative importance of these three elements in deciding the purchase intention. However, respondents could potentially notice the aim of this task, and give the 'right' answer, thus leading to fake conclusions.

#### *CE as a mediator in packaging elements influencing PI*

The healthy choice label was found to have positive influence on the purchase intention of healthy juice. The label was found to have negative influence on the cognitive dimension of customer experience, but there was no evidence that the cognitive dimension of customer experience has influence on the purchase intention of healthy juice. Thus CE was not verified to be the mediator in the influence of label on purchase intention of healthy juice, and also not in the influence of other two packaging elements on purchase intention of healthy juice.

It is possible that the customer experience is not the mediator between packaging elements and the purchase intention of healthy juice, so the hypothesis 10 concerning the mediation function of customer experience is wrong.

#### *Interaction effects*

It was expected that people with visual-oriented processing style would perceive higher customer experience when they see the image of healthy people (visual packaging element). Subsequently,

people with verbal-oriented processing style would perceive higher customer experience than they see the healthy choice logo and the health claim (informational packaging elements). However, there was no finding for the interaction effect of visual-oriented processing style and image. The results show that the respondents with visual-oriented processing style perceived higher sensory dimension of customer experience than respondents with verbal-oriented processing style when the label was on the package. The same can be concluded for the perceived affective dimension of customer experience, which is contrary to the hypotheses.

The healthy choice label was not found to have influence on the purchase intention of healthy juice. So the interaction effect of the label and visual-oriented processing style did not exist accordingly.

The reason for this contradictory finding might be that the healthy choice logo was perceived by the respondents as an visual element on the package, not as other FOP labels which might be perceived as informational element. So the respondents with visual-oriented processing style were triggered higher sensory and affective dimension of customer when there was a healthy choice label on the package.

It was also expected that people with higher importance of orange juice would perceive higher purchase intention. The results indicated that the level of importance of orange juice did not moderate how packaging elements influence the respondents' purchase intention of healthy juice. However, the importance of orange juice was found to have a main effect on the purchase intention of healthy juice, which means consumers who consider the orange juice as more important are more likely to buy the healthy orange juice, no matter what kind of packaging the product has.

## **5.2 Discussion concerning unexpected effects**

Besides the predicted effects of packaging elements on dimensions of customer experience, some unexpected effects were found. The image of healthy people was found to have positive influence on the cognitive dimension and behavioural dimension of customer experience. The healthy choice label was found to have negative influence on the cognitive dimension of customer experience.

The image of healthy people was found to have positive influence on the cognitive dimension of customer experience might be that the image activated the respondents' memory and activated their thinking and association of the value and lifestyle represented by this image. This process increased their cognitive effort, thus the image of healthy people evokes higher cognitive dimension of customer experience.

The image of healthy people was also found to have positive influence on the behavioural dimension of customer experience. This makes sense as this image represented the healthy lifestyle, which affirmed their value and beliefs about living healthy (Gentile et al. 2007). Consequently, the respondents who have seen this image perceived higher behavioural dimension of customer experience.

The reason for the healthy choice label triggering lower cognitive dimension of customer experience might be that the healthy choice label is the simplest form of FOP label, which provides the consumers with an evaluative interpretation of the products' healthiness (Feunekes et al. 2008). Thus the presence of this label decreased the respondents' cognitive effort to interpret it. As a result, the

respondents perceived lower cognitive dimension of customer when there was a healthy choice logo on the package.

### 5.3 Implication

In this part, several theoretical implications and managerial implications were forwarded base on the interpretation of the results above.

*Theoretical implication* Two of the three packaging elements (image of healthy people and health claim) were not found to have positive influence on the purchase intention of healthy juice as expected. The effects of individual differences resulted from the between-group experimental design may accounts for this failure. The cognitive dimension of customer experience was not found to have positive influence on the purchase intention of healthy juice. This is because the cognitive dimension of customer experience was not necessary for having purchase intention for products with low customer commitment and involvement, such as orange juice.

*Managerial implication* There are several tips that might be helpful to make healthy choice easier for consumers. The healthy choice logo was found to have positive influence on the purchase intention of healthy juice. Thus the healthy choice logo should be widely used on the package of healthy food and drink products by the manufacturers. Besides, the importance of orange juice was found to have positive influence on the purchase intention of healthy juice, no matter what types of packaging elements there are. Organizations that are dedicated to increase the healthy consumption of the consumers should pay attention to educate the consumers to value the importance of healthy consumption. The more people value healthy consumption, the easier it is for them to make healthy food ( and drinks) choices.

## 6 Further recommendation

It is encouraged to develop specific scales measuring customer experience for products. Existing measures for dimensions of customer experience were mostly used for measuring perceived experience with brands (Brakus et al. 2009), or perceived experience of service (e.g. employee service and servicescape) in the circumstances of retailing (Stuart-Menteth et al. 2006). The scales of customer experience used in this experiment were partially derived from the research of Brakus et al. (2009) and partially developed based on the concepts of the dimensions of customer experience in the research of Gentile et al. (2007). So some of the measures did not fit in the circumstance of specific products. For example, the scale of affective dimension of customer experience would be more suitable if it was framed more clear and specific. To include, it is engouranged to develop more specific scales used to measure customer experience for products.

## 7 Conclusion

In the circumstances of hyper choice in the market, providing positive customer experience was seen as a way to help people to make healthy choices easier. Packaging elements of the products were found to have positive influence on the customer experience and the purchase intention. Accordingly, the aim of this thesis has been to investigate whether and how customer experience acts as mediator between packaging and consumers' purchase intention of healthy juice. Thus a between-group experiment has been carried out in the form of an online questionnaire.

The results of the experiment verified that the healthy choice label had positive influence on the purchase intention of healthy juice. Moreover, two packaging elements were found to have influence on customer experience: presence of a healthy choice label had negative influence on the cognitive dimension of customer experience and presenting an image of healthy people was found to have positive influence on affective dimension, cognitive dimension and behavioural dimension of customer experience. However, only sensory dimension, social dimension and behavioural dimension of customer experience were found to have positive influence on the purchase intention of healthy juice. A mediation analysis examined that customer experience was not the mediator between packaging elements and consumers' purchase intention of healthy juice. In addition, the level of importance of orange juice was found to have positive influence on purchase intention of healthy juice.

One major limitation in this research came from the between-group experimental design. It proved difficult to control for all the effects of individual differences in the data analysis. It was also expected to have better results if there were more specific scales of customer experience dimensions for products.

Although not all the hypotheses were verified, the results we achieved can still serve our aim to make healthy choices easier for people. The manufacturers should use the healthy choice logo on the package as this label directly increase consumers' purchase intention of healthy juice. Organizations dedicated to increasing healthy consumption of the consumers should invest more in educating consumers about the importance of healthy consumption. As healthy consumption gains in importance for consumers, they will be more likely to make healthier choices.

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## Appendices

### Appendix I: Results of the PCA

Table 12 Exploratory Factor Analysis: CE Dimensions, PH and PI uses Varimax Rotation

	1	2	3	4	5	6
Q1 This product makes a strong impression on my visual sense or other senses.	0.736					
Q2 I find this product interesting in a sensory way.	0.784					
Q3 I find this product does not appeal to my senses. *	0.759					
Q4 This product includes feelings and sentiments.				0.737		
Q5 I do not have strong emotions for this product. *				0.631		
Q6 This is an emotional product.				0.754		
Q7 I engage in a lot of thinking when I encounter this product.		0.830				
Q8 This product does not make me think. *		0.841				
Q9 This product stimulates my curiosity and problem solving.		0.651				
Q10 This product corresponds with my lifestyle.					0.796	
Q11 This product does not adhere to the value of my lifestyle. *					0.873	
Q12 This product enhances my self-image.						0.504
Q13 My consumption of this product would be perceived positively by my friends.						0.713
Q14 This product helps me to achieve confirmation in my group.						0.780
Q15 This product is healthy.			0.921			
Q16 This product is good for my health.			0.923			
Q17 I believe that most people would like to buy this product.	0.652					
Q18 I would purchase this product.	0.551					

\* Items are negatively phrased and reverse coded.

Notes: Factor analysis uses varimax rotation.

**Table 13 Exploratory Factor Analysis: CE Dimensions, PH and PI uses Oblimin Rotation**

	1	2	3	4	5	6
<b>Q1 This product makes a strong impression on my visual sense or other senses.</b>			- 0.791			
<b>Q2 I find this product interesting in a sensory way.</b>			- 0.791			
<b>Q3 I find this product does not appeal to my senses. *</b>			- 0.759			
<b>Q4 This product includes feelings and sentiments.</b>					0.709	
<b>Q5 I do not have strong emotions for this product. *</b>					0.600	
<b>Q6 This is an emotional product.</b>					0.718	
<b>Q7 I engage in a lot of thinking when I encounter this product.</b>		0.868				
<b>Q8 This product does not make me think. *</b>		0.881				
<b>Q9 This product stimulates my curiosity and problem solving.</b>		0.650				
<b>Q10 This product corresponds with my lifestyle.</b>						- 0.796
<b>Q11 This product does not adhere to the value of my lifestyle. *</b>						- 0.895
<b>Q12 This product enhances my self-image.</b>	0.448					
<b>Q13 My consumption of this product would be perceived positively by my friends.</b>	0.688					
<b>Q14 This product helps me to achieve confirmation in my group.</b>	0.811					
<b>Q15 This product is healthy.</b>				- 0.968		
<b>Q16 This product is good for my health.</b>				- 0.976		
<b>Q17 I believe that most people would like to buy this product.</b>			- 0.638			
<b>Q18 I would purchase this product.</b>			- 0.462			

**\* Items are negatively phrased and reverse coded.**

**Notes: Factor analysis uses oblimin rotation.**

**Table 14 Exploratory Factor Analysis: Psychographic Characteristics uses Varimax Rotation**

	1	2	3	4
Q19 I enjoy doing work that requires the use of words. *			0.794	
Q20 I enjoy learning new words. *			0.746	
Q21 I find it helps to think in terms of mental pictures when doing many things.	0.822			
Q22 When I have forgotten something I frequently try to form a mental 'picture' to remember it.	0.792			
Q23 I prefer activities that don't require a lot of reading.			0.656	
Q24 My thinking often consists of mental 'pictures' or images.	0.859			
Q25 How often do you drink orange juice?		0.906		
Q26 How important orange juice is for you?		0.921		
Q27 How important healthy consumption is for you?				0.556
Q28 How would you best describe your overall health?				0.860
Q29 How often do you get sick? *				0.698

\* Items are negatively phrased and reverse coded.

Notes: Factor analysis uses varimax rotation.

**Table 15 Exploratory Factor Analysis: Psychographic Characteristics uses Oblimin Rotation**

	1	2	3	4
Q19 I enjoy doing work that requires the use of words. *		0.800		
Q20 I enjoy learning new words. *		0.743		
Q21 I find it helps to think in terms of mental pictures when doing many things.	0.826			
Q22 When I have forgotten something I frequently try to form a mental 'picture' to remember it.	0.793			
Q23 I prefer activities that don't require a lot of reading.		0.665		
Q24 My thinking often consists of mental 'pictures' or images.	0.858			
Q25 How often do you drink orange juice?			- 0.917	
Q26 How important orange juice is for you?			- 0.926	
Q27 How important healthy consumption is for you?				0.542
Q28 How would you best describe your overall health?				0.860
Q29 How often do you get sick? *				0.708

\* Items are negatively phrased and reverse coded.

Notes: Factor analysis uses oblimin rotation.

## Appendix II: Model Summary of Mediation Analysis

Table 16 Model Summary of Mediation Analysis with Image as Independent Variable, Controlling for Covariates

	Consequent											
		M <sub>1</sub> (Sensory)			M <sub>2</sub> (Affective)			M <sub>3</sub> (Cognitive)				
Antecedent		Coeff.	SE	p		Coeff.	SE	p		Coeff.	SE	p
X (Image)	<i>a</i> <sub>1</sub>	0.0184	0.1185	0.8768	<i>a</i> <sub>2</sub>	0.7141	0.1224	0.0000	<i>a</i> <sub>3</sub>	0.3408	0.1125	0.0026
M <sub>1</sub> (Sensory)												
M <sub>2</sub> (Affective)												
M <sub>3</sub> (Cognitive)												
M <sub>4</sub> (Behavioural)												
M <sub>5</sub> (Social)												
C <sub>1</sub> (Age)	<i>f</i> <sub>1</sub>	-0.0036	0.0161	0.8239	<i>f</i> <sub>1</sub>	0.0443	0.0166	0.0081	<i>f</i> <sub>1</sub>	0.0067	0.0153	0.6601
C <sub>2</sub> (Gender)	<i>f</i> <sub>2</sub>	-0.0334	0.1232	0.7863	<i>f</i> <sub>2</sub>	-0.0689	0.1272	0.5886	<i>f</i> <sub>2</sub>	-0.1172	0.1170	0.3168
C <sub>3</sub> (SOP)	<i>f</i> <sub>3</sub>	0.0428	0.1038	0.6807	<i>f</i> <sub>3</sub>	0.0045	0.1073	0.9666	<i>f</i> <sub>3</sub>	-0.2020	0.0986	0.0410
C <sub>4</sub> (IMPO)	<i>f</i> <sub>4</sub>	0.1621	0.0534	0.0025	<i>f</i> <sub>4</sub>	0.0576	0.0551	0.2964	<i>f</i> <sub>4</sub>	0.1629	0.0507	0.0014
C <sub>5</sub> (HS)	<i>f</i> <sub>5</sub>	0.0077	0.0753	0.9183	<i>f</i> <sub>5</sub>	-0.1134	0.0778	0.1456	<i>f</i> <sub>5</sub>	-0.0126	0.0715	0.8607
Constant	<i>i</i> <sub>M<sub>1</sub></sub>	3.4115	0.5880	0.0000	<i>i</i> <sub>M<sub>2</sub></sub>	1.9883	0.6073	0.0011	<i>i</i> <sub>M<sub>3</sub></sub>	2.5936	0.5583	0.0000
	R <sup>2</sup> = 0.0194				R <sup>2</sup> = 0.0862				R <sup>2</sup> = 0.0507			
	F (6,479)= 1.5832    p=0.1500				F (6,479)= 7.5276    p=0.0000				F (6,479)= 4.2617    P=0.0003			

Table 17 Model Summary of Mediation Analysis with Image as Independent Variable, Controlling for Covariates (cont.)

	Consequent											
		M <sub>4</sub> (Behavioural)				M <sub>5</sub> (Social)				Y (PI)		
Antecedent		Coeff.	SE	p		Coeff.	SE	p		Coeff.	SE	p
<b>X (Image)</b>	$a_4$	0.5116	0.1237	0.0000	$a_5$	0.1422	0.0900	0.1121	$c'$	-0.1149	0.0917	0.2105
<b>M<sub>1</sub> (Sensory)</b>						-	-	-	$b_1$	0.4391	0.0384	0.0000
<b>M<sub>2</sub> (Affective)</b>						-	-	-	$b_2$	-0.0579	0.0370	0.1177
<b>M<sub>3</sub> (Cognitive)</b>						-	-	-	$b_3$	0.0589	0.0409	0.1511
<b>M<sub>4</sub> (Behavioural)</b>						-	-	-	$b_4$	0.1261	0.0369	0.0007
<b>M<sub>5</sub> (Social)</b>						-	-	-	$b_5$	0.3119	0.0517	0.0000
<b>C<sub>1</sub> (Age)</b>	$f_1$	-0.0217	0.0168	0.1986	$f_1$	-0.0109	0.0122	0.3740	$g_1$	-0.0196	0.0119	0.0999
<b>C<sub>2</sub> (Gender)</b>	$f_2$	0.0102	0.1286	0.9366	$f_2$	-0.0075	0.0936	0.9360	$g_2$	0.0061	0.0901	0.9458
<b>C<sub>3</sub> (SOP)</b>	$f_3$	-0.1258	0.1084	0.2462	$f_3$	-0.0112	0.0789	0.8874	$g_3$	-0.0855	0.0765	0.2645
<b>C<sub>4</sub> (IMPO)</b>	$f_4$	0.2455	0.0557	0.0000	$f_4$	0.1836	0.0406	0.0000	$g_4$	0.1193	0.0403	0.0032
<b>C<sub>5</sub> (HS)</b>	$f_5$	0.1670	0.0786	0.0342	$f_5$	0.0456	0.0573	0.4267	$g_5$	-0.0777	0.0555	0.1622
<b>Constant</b>	$i_{M_4}$	2.7888	0.6137	0.0000	$i_{M_5}$	2.6282	0.4468	0.0000	$i_Y$	1.1901	0.4543	0.0091
	$R^2 = 0.0808$				$R^2 = 0.0467$				$R^2 = 0.4720$			
	F (6,479)= 7.0217 P=0.0000				F (6,479)= 3.9149 P=0.0008				F (11,474)= 38.5160 P=0.0000			

Table 18 Model Summary of Mediation Analysis with Label as Independent Variable, Controlling for Covariates

	Consequent											
		M <sub>1</sub> (Sensory)				M <sub>2</sub> (Affective)				M <sub>3</sub> (Cognitive)		
Antecedent		Coeff.	SE	p		Coeff.	SE	p		Coeff.	SE	p
<b>X (Label)</b>	$a_1$	0.1231	0.1183	0.2986	$a_2$	0.0182	0.1266	0.8859	$a_3$	-0.2511	0.1129	0.0266
<b>M<sub>1</sub> (Sensory)</b>												
<b>M<sub>2</sub> (Affective)</b>												
<b>M<sub>3</sub> (Cognitive)</b>												
<b>M<sub>4</sub> (Behavioural)</b>												
<b>M<sub>5</sub> (Social)</b>												
<b>C<sub>1</sub> (Age)</b>	$f_1$	-0.0033	0.0161	0.8363	$f_1$	0.0468	0.0172	0.0068	$f_1$	0.0075	0.0154	0.6249
<b>C<sub>2</sub> (Gender)</b>	$f_2$	-0.0407	0.1232	0.7411	$f_2$	-0.0379	0.1318	0.7741	$f_2$	-0.0853	0.1176	0.4688
<b>C<sub>3</sub> (SOP)</b>	$f_3$	0.0392	0.1036	0.7053	$f_3$	0.0452	0.1109	0.6838	$f_3$	-0.1729	0.0989	0.0811
<b>C<sub>4</sub> (IMPO)</b>	$f_4$	0.1603	0.0533	0.0028	$f_4$	0.0501	0.0571	0.3807	$f_4$	0.1627	0.0509	0.0015
<b>C<sub>5</sub> (HS)</b>	$f_5$	0.0106	0.0752	0.8875	$f_5$	-0.0940	0.0805	0.2435	$f_5$	-0.0084	0.0718	0.9068
<b>Constant</b>	$i_{M_1}$	3.3718	0.5884	0.0000	$i_{M_2}$	2.1244	0.6296	0.0008	$i_{M_3}$	2.7503	0.5617	0.0000
		R <sup>2</sup> = 0.0216				R <sup>2</sup> = 0.0213				R <sup>2</sup> = 0.0424		
		F (6,479)= 1.7631 p=0.1049				F (6,479)= 1.7348 p=0.1110				F (6,479)= 3.5330 P=0.0020		



Table 19 Model Summary of Mediation Analysis with Label as Independent Variable, Controlling for Covariates (cont.)

	Consequent											
	M <sub>4</sub> (Behavioural)				M <sub>5</sub> (Social)				Y (PI)			
Antecedent		Coeff.	SE	p		Coeff.	SE	p		Coeff.	SE	p
X (Label)	<i>a</i> <sub>4</sub>	0.1042	0.1257	0.4074	<i>a</i> <sub>5</sub>	0.1012	0.0901	0.2619	<i>c'</i>	0.1780	0.0874	0.0422
M <sub>1</sub> (Sensory)									<i>b</i> <sub>1</sub>	0.4408	0.0381	0.0000
M <sub>2</sub> (Affective)									<i>b</i> <sub>2</sub>	-0.0716	0.0358	0.0461
M <sub>3</sub> (Cognitive)									<i>b</i> <sub>3</sub>	0.0691	0.0412	0.0944
M <sub>4</sub> (Behavioural)									<i>b</i> <sub>4</sub>	0.1162	0.0362	0.0014
M <sub>5</sub> (Social)									<i>b</i> <sub>5</sub>	0.3098	0.0515	0.0000
C <sub>1</sub> (Age)	<i>f</i> <sub>1</sub>	-0.0197	0.0171	0.2497	<i>f</i> <sub>1</sub>	-0.0102	0.0123	0.4041	<i>g</i> <sub>1</sub>	-0.0194	0.0119	0.1030
C <sub>2</sub> (Gender)	<i>f</i> <sub>2</sub>	0.0264	0.1309	0.8401	<i>f</i> <sub>2</sub>	-0.0077	0.0938	0.9343	<i>g</i> <sub>2</sub>	-0.0099	0.0899	0.9125
C <sub>3</sub> (SOP)	<i>f</i> <sub>3</sub>	-0.1001	0.1101	0.3635	<i>f</i> <sub>3</sub>	-0.0067	0.0789	0.9326	<i>g</i> <sub>3</sub>	-0.0974	0.0761	0.2013
C <sub>4</sub> (IMPO)	<i>f</i> <sub>4</sub>	0.2389	0.0567	0.0000	<i>f</i> <sub>4</sub>	0.1809	0.0406	0.0000	<i>g</i> <sub>4</sub>	0.1197	0.0401	0.0030
C <sub>5</sub> (HS)	<i>f</i> <sub>5</sub>	0.1827	0.0799	0.0227	<i>f</i> <sub>5</sub>	0.0514	0.0573	0.3705	<i>g</i> <sub>5</sub>	-0.0766	0.0553	0.1669
Constant	<i>i</i> <sub>M<sub>4</sub></sub>	2.8541	0.6252	0.0000	<i>i</i> <sub>M<sub>5</sub></sub>	2.6210	0.4482	0.0000	<i>i</i> <sub>Y</sub>	1.1345	0.4538	0.0128
	R <sup>2</sup> = 0.0494				R <sup>2</sup> = 0.0442				R <sup>2</sup> = 0.4748			
	F (6,479)= 4.1468		P=0.0004		F (6,479)= 3.6937		P=0.0013		F (11,474)= 38.9585		P=0.0000	

Table 20 Model Summary of Mediation Analysis with Claim as Independent Variable, Controlling for Covariates

	Consequent											
		M <sub>1</sub> (Sensory)				M <sub>2</sub> (Affective)				M <sub>3</sub> (Cognitive)		
Antecedent		Coeff.	SE	p		Coeff.	SE	p		Coeff.	SE	p
<b>X (Claim)</b>	$a_1$	0.1786	0.1186	0.1330	$a_2$	-0.0311	0.1271	0.8069	$a_3$	0.1887	0.1137	0.0976
<b>M<sub>1</sub> (Sensory)</b>												
<b>M<sub>2</sub> (Affective)</b>												
<b>M<sub>3</sub> (Cognitive)</b>												
<b>M<sub>4</sub> (Behavioural)</b>												
<b>M<sub>5</sub> (Social)</b>												
<b>C<sub>1</sub> (Age)</b>	$f_1$	-0.0007	0.0162	0.9664	$f_1$	0.0463	0.0173	0.0079	$f_1$	0.0109	0.0155	0.4815
<b>C<sub>2</sub> (Gender)</b>	$f_2$	-0.0274	0.1228	0.8238	$f_2$	-0.0376	0.1316	0.7754	$f_2$	-0.0963	0.1177	0.4135
<b>C<sub>3</sub> (SOP)</b>	$f_3$	0.0439	0.1034	0.6709	$f_3$	0.0458	0.1107	0.6792	$f_3$	-0.1822	0.0990	0.0664
<b>C<sub>4</sub> (IMPO)</b>	$f_4$	0.1608	0.0533	0.0027	$f_4$	0.0505	0.0570	0.3765	$f_4$	0.1583	0.0510	0.0020
<b>C<sub>5</sub> (HS)</b>	$f_5$	0.0154	0.0753	0.8375	$f_5$	-0.0956	0.0806	0.2362	$f_5$	0.0042	0.0721	0.9540
<b>Constant</b>	$i_{M_1}$	3.2304	0.5989	0.0000	$i_{M_2}$	2.1630	0.6416	0.0008	$i_{M_3}$	2.4664	0.5737	0.0000
		R <sup>2</sup> = 0.0240				R <sup>2</sup> = 0.0213				R <sup>2</sup> = 0.0380		
		F (6,479)= 1.9641 p=0.0692				F (6,479)= 1.7415 p=0.1096				F (6,479)= 3.1560 P=0.0048		

Table 21 Model Summary of Mediation Analysis with Claim as Independent Variable, Controlling for Covariates (cont.)

	Consequent											
	M <sub>4</sub> (Behavioural)				M <sub>5</sub> (Social)				Y (PI)			
Antecedent		Coeff.	SE	p		Coeff.	SE	p		Coeff.	SE	p
X (Claim)	<i>a</i> <sub>4</sub>	0.1468	0.1261	0.2451	<i>a</i> <sub>5</sub>	0.0730	0.0905	0.4208	<i>c'</i>	0.0431	0.0875	0.6228
M <sub>1</sub> (Sensory)									<i>b</i> <sub>1</sub>	0.4446	0.0382	0.0000
M <sub>2</sub> (Affective)									<i>b</i> <sub>2</sub>	-0.0680	0.0360	0.0594
M <sub>3</sub> (Cognitive)									<i>b</i> <sub>3</sub>	0.0557	0.0411	0.1757
M <sub>4</sub> (Behavioural)									<i>b</i> <sub>4</sub>	0.1171	0.0364	0.0014
M <sub>5</sub> (Social)									<i>b</i> <sub>5</sub>	0.3155	0.0517	0.0000
C <sub>1</sub> (Age)	<i>f</i> <sub>1</sub>	-0.0175	0.0172	0.3086	<i>f</i> <sub>1</sub>	-0.0092	0.0124	0.4549	<i>g</i> <sub>1</sub>	-0.0190	0.0120	0.1144
C <sub>2</sub> (Gender)	<i>f</i> <sub>2</sub>	0.0376	0.1306	0.7735	<i>f</i> <sub>2</sub>	0.0011	0.0937	0.9908	<i>g</i> <sub>2</sub>	0.0020	0.0902	0.9823
C <sub>3</sub> (SOP)	<i>f</i> <sub>3</sub>	-0.0961	0.1099	0.3823	<i>f</i> <sub>3</sub>	-0.0028	0.0789	0.9714	<i>g</i> <sub>3</sub>	-0.0933	0.0764	0.2224
C <sub>4</sub> (IMPO)	<i>f</i> <sub>4</sub>	0.2393	0.0566	0.0000	<i>f</i> <sub>4</sub>	0.1817	0.0406	0.0000	<i>g</i> <sub>4</sub>	0.1218	0.0403	0.0026
C <sub>5</sub> (HS)	<i>f</i> <sub>5</sub>	0.1866	0.0800	0.0201	<i>f</i> <sub>5</sub>	0.0523	0.0574	0.3627	<i>g</i> <sub>5</sub>	-0.0786	0.0557	0.1588
Constant	<i>i</i> <sub>M<sub>4</sub></sub>	2.7390	0.6367	0.0000	<i>i</i> <sub>M<sub>5</sub></sub>	2.5813	0.4571	0.0000	<i>i</i> <sub>Y</sub>	1.1503	0.4617	0.0131
	R <sup>2</sup> = 0.0507				R <sup>2</sup> = 0.0430				R <sup>2</sup> = 0.4705			
	F (6,479)= 4.2635    P=0.0003				F (6,479)= 3.5871    P=0.0017				F (11,474)= 38.2878    P=0.0000			

## Appendix III: Packaging profiles



Figure 4 Product No.1 (Package with Image)



Figure 5 Product No.2 (Package with Label)



Figure 6 Product No.3 (Package with Claim)



Figure 7 Product No.4 (Package with Image, Label and Claim)



Figure 8 Product No.5 (Package with Image and Claim)



Figure 9 Product No.6 (Package with Label and Claim)



Figure 10 Product No.7 (Package with Image and Label)



Figure 11 Product No.8 (Package with no manipulation)