

An abstract graphic consisting of numerous thin black lines that originate from a central point at the top and fan out towards the bottom. Interspersed among these lines are several blue circles of varying sizes. Some circles are solid blue, while others are smaller and appear as dots. The overall effect is a complex, web-like structure that suggests connectivity and flow.

THE EFFECT OF CONGRUENCE BETWEEN STORE DESIGN AND SCENT ON CONSUMER RESPONSES TOWARDS FASHION STORES

MASTER THESIS

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Master thesis

July 11, 2016

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ABSTRACT

Previous research in the environmental psychology and consumer behavior has shown positive effects of environmental features such as color, lighting and scent on consumer perceptions in retail settings. However, the effect of congruence between these environmental features in fashion stores is unknown. This study examines the effect of congruence between store design and scent on consumer responses towards fashion stores. Six moodboards of fashion stores were created, composed of a 2 (*store design: dark vs. light*) x 3 (*scent: dark vs. light vs. neutral*) between subject design with gender as moderator and processing fluency as mediator. 156 participants were asked about their perceptions regarding the store environment, the scent, intention to visit the store, emotional state (pleasure, arousal, dominance), merchandise perception, value for money and time perception. The results indicate that the use of scent positively influences consumers' evaluation of the store, value for money, time perception and the feeling of arousal. Regarding to the congruence, congruent combinations of store design and scent lead to a better evaluation of the store than incongruent combinations. The congruence in the light condition positively influences consumers' specific evaluation of the store, general scent evaluation, time perception and the feelings of pleasure and arousal. The findings provide valuable starting points for retail managers to use scent as a sensory cue in combination with the design of fashion stores as a means to attract and please consumers.

Keywords: *store design, scent, processing fluency, consumer responses, emotional states*

ACKNOWLEDGEMENT

After five months of hard work I finished my master thesis about multisensory marketing with the focus on the congruence between store design and scent. During the master Marketing Communication, I became interested in the effects of environmental features in the retail setting. Together with my first supervisor, dr. Thomas van Rompay, I came up with the idea to investigate the effects of scent in fashion stores with the main focus on the congruence between light and dark dimensions. I have learned a lot by conducting this study and the knowledge I have gained from the bachelor Communication Science and the Master Marketing Communication implemented in practice. Looking back to this research, it was a challenge to create the stimuli. However, the study was nice to perform. This motivated me to work enthusiastically to deliver a thesis of good quality.

I would like to thank my first supervisor dr. Thomas van Rompay for his good guidance and support throughout the process. He was always enthusiastic and provided me with useful feedback. Furthermore, I would like to thank my second supervisor prof. dr. Ad Pruyn for his critical view and feedback. I also would like to thank all the participants who have ensured that my experiment was successful. Without the cooperation of the participants, this study was not possible. Finally, I would like to thank my family and friends for the help. Their words motivated me to continue working on my thesis.

I hope you will enjoy reading my master thesis about the effects of the congruence between store design and scent on consumer responses towards fashion stores.

Lisan Joustra

Enschede, July 11, 2016

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1. INTRODUCTION

The fashion store of old tennis player Björn Borg has developed strongly in recent years. Selling sportswear and underwear have led to increasing sales. Since a short period of time, Björn Borg distributed scent in the stores to get a better experience of the image of the brand. The look of the stores is bright, colorful and sporty. The scent is therefore adjusted by providing a fresh, sporty scent that matches both the clothing and the store. The fit between the scent and the store design makes the success of Björn Borg (AllSens, 2012).

The above success of Björn Borg is due to the deployment of a scent in the store that fits the store design. To examine whether more fashion stores make use of scent in the store, an interview study among fashion stores in Enschede is conducted in preparation for the study. The results show that only five of the 32 fashion stores use scent in the store to attract consumers. It even appears that the largest part of the fashion stores is unfamiliar with the possible influence of scent in the store. The results were the reason to examine the effects of scent in fashion stores on consumer behavior.

Companies have attained significant competitive advantage through the use of scent in stores (Pine & Gilmore, 1999). Scent can be seen as the sense that has the strongest association with emotions in the brain (Mitchell, Kahn & Knasko, 1995). Research showed that the use of scent increased the sales of products (Bone & Jantrania, 1992). Knasko (1989) found that consumers spend more time in a jewelry store when the store makes use of scent. Although the findings are promising, relatively little fashion stores make use of scent.

Scientific research has shown that the pleasantness of a scent affects consumer behavior (Spangenberg, Crowley & Henderson, 1996; Morrin & Ratneshwar, 2003). Spangenberg, Crowley and Henderson (1996) examined the influence of scent on consumers' mood in a simulated retail environment. The results showed that pleasant environmental scents resulted in good moods with the consequence that respondents evaluate the store more positively. Also higher approach behavior was showed. The study of Morrin and Ratneshwar (2003) demonstrated that a pleasant environmental scent led to the fact that people take more time to observe brand names. In addition, it was found that the presence of an environmental scent improved the recognition and recall of brand names.

These studies show that the impact of scent in relation to products and mood has been studied previously. However, little is known about the use and effects of scent in fashion stores. This study attempts to reduce these gaps in the literature by examining the influence of scent on consumer responses in fashion stores.

Most of the studies in the literature have focused on examining the influence of one stimulus on consumer behavior. Few studies have focused on the extent to which various environmental stimuli interact with each other. This phenomenon is also known as multisensory marketing (Krishna, 2010). Multisensory marketing is important, because research has shown that appealing to multiple senses leads to more pleasant product experiences, improved memory, more positive emotions and attitudes towards products or brands (Krishna, 2010). Multisensory cues can also affect consumers' time perception. Research showed that people may feel that the time passes faster in a pleasant environment compared to an unpleasant environment (Borges, Herter & Chebat, 2015). The focus of this research will be on multisensory marketing, where visual elements and scent will be integrated in one study.

The notion of congruence between scent and store design is of special importance to this research. The extent to which a scent is appropriate (congruent) or not appropriate (incongruent) to the environment affects the way consumers evaluate the environment (Spangenberg, Grohmann & Sprott, 2005). Mitchell, Kahn and Knasko (1995) have examined the influence of a congruent, as opposed to an incongruent, scent for chocolate and flowers. The findings showed that consumers spend more time processing the data and make better choices when the scent is congruent with the product compared to a scent incongruent to the product (Mitchell, Kahn & Knasko, 1995). One of the reasons why congruence induces more positive evaluations relates to processing fluency (Reber, Schwarz & Winkielman, 2004). It is expected that the congruence simplifies the information processing whereby it is easier for consumers to form an image of the store environment when different aspects match rather than mismatch.

The current research aims to analyze the influence of store design – scent congruence on consumer responses. More specifically, congruence of the store design expects simplification of processing fluency, and in turn, high processing fluency is proposed to improve consumer evaluations. In order to examine the propositions, an experimental study is conducted in which different store design aspects and scents are manipulated. The focus of this study is the difference between dark and light dimensions. Research showed that people often classify scents based on their intensity and they primarily associate odors with dark and light dimensions (Kemp & Gilbert, 1997). In addition, the emerging trend of dark designs in stores make the contrast between dark and light store designs larger. It is relevant to examine the extent to which the congruence of a dark and light store design and a dark and light scent has an effect on consumer behavior.

Based on the information, the research question of the study is:

What is the effect of congruence between store design and scent in fashion stores in terms of product and store evaluation?

This research is relevant to the literature, because it will extend previous work on scent and retail environments within consumer behavior and further contribute to the emerging literature on multisensory interactions. The study is new, because the congruence of store design and scent in fashion stores has not been previously examined. The findings may provide valuable starting points for retail managers to use scent as a sensory cue in fashion stores as a means to attract and please consumers. In addition, this study may provide insights into the effects of the appropriateness of the scent with the store design. Before introducing the study, the key constructs involved will be elaborated.

2. THEORETICAL FRAMEWORK

2.1 Store environment and consumer behavior

The store environment plays a major role in influencing consumers' emotions and behavior. Studies showed that consumers may display two kinds of behavior: approach or avoidance. Approach behavior is the desire to stay, to explore and to affiliate; avoidance behavior is the desire to leave (Bitner, 1992; Mehrabian & Russel, 1974; Spangenberg, Crowley & Henderson, 1996). Spangenberg, Crowley and Henderson (1996) used the Stimulus-Organism-Response (SOR) model to explain approach and avoidance behavior. The model states that the environment is the stimulus (S) that affects consumers' evaluation (O) by giving environmental and atmospheric cues, and causes a behavioral response (R) (Bitner, 1992; Mehrabian & Russell, 1974; Spangenberg, Crowley & Henderson, 1996).

Mehrabian and Russell (1974) have developed a model to measure the influence of the environment on consumer behavior. The consequences of the environmental features on behavior are mediated by three kinds of emotions: *pleasure*, *arousal* and *dominance* (Ang, Leong & Lim, 1997; Bitner, 1992; Mehrabian & Russell, 1974). Pleasure refers to the degree to which a person feels good or comfortable, arousal is the degree to which a person feels stimulated or active, and dominance is defined as the degree to which a person feels in control (Ang, Leong & Lim, 1997; Mehrabian & Russell, 1974; Turley & Milliman, 2000).

Pleasure and arousal are the common emotions in empirical research to measure consumer experiences (Hines & Mehrabian, 1979; Van Kenhove & Desrumaux, 1997). Sherman, Mathur and Smith (1997) have found that arousal can increase the purchase intention and buying behavior in fashion stores. Mehrabian and Russell (1974) showed that people spend more time and money in environments that stimulate people and give people pleasant feelings. Ryu and Jang (2007) demonstrated that emotions evoked by the environment have significant impact on the extent to which guests have the intention to return to the restaurant, recommend the restaurant and the money they spend in the restaurant. It is expected that the addition of scent has a positive impact on consumers' emotions and behavior, because it adds an additional stimulus for the retail environment.

2.2 Multisensory marketing and store image

The physical environment consists of different environmental features that influence consumers' behavior. These environmental features are also known as atmospherics. Atmospherics affect the way in which consumers make decisions and evaluate products and

brands (Kotler, 1973). The atmosphere describes the quality of the environment and can be used to create a consumer experience (Kotler, 1973). In this manner, the atmosphere determines the store image (Baker, Grewal & Parasuraman, 1994). Store image is the sum of all attributes based on consumers' experiences and perceptions with the store (Bloemer & Odekerken-Schroder, 2002). It is the set of attitudes based on the evaluation of the attributes of a store that are of interest to consumers (James, Durand & Dreves, 1976). Creating a positive store image is desired to obtain and retain customers and to distinguish the store from other stores.

According to Golden and Zimmer (1988), store image can be influenced by the store environment, service quality and merchandise quality. Consumers draw conclusions on the quality and merchandise of the store based on the store environment, which leads to an overall evaluation of the store. For instance, Gardner and Siomkos (1985) showed that a perfume is evaluated more favorable when the product was sold in an environment with a prestige image than when the product was sold in an environment with a discount image.

The store image can also be influenced by elements of the atmosphere. The atmosphere can be classified into three groups (Baker & Cameron, 1996): *ambient elements*, *design elements* and *social elements*. Ambient elements are background conditions in the environment that cannot be perceived visually, such as music, scent and light (Wineman, 1982; Yalch & Spangenberg, 1990). Design elements are elements that can be observed visually, such as layout, color and style (Baker, Grewal & Parasuraman, 1994). Social elements are elements of the people and service (Baker, Grewal & Parasuraman, 1994).

In this study, the influence of the ambient elements lighting/color and scent on consumer responses towards fashion stores will be examined. Because the store design will represent an image consisting of the combination of lighting and color, color will not be seen as a design element in this study but as an ambient element that is integrated in the design.

2.2.1 Ambient element: lighting and color

Ambient elements are important determinants for consumer evaluation and satisfaction. One of the most fundamental differences for influencing the store image is the light-dark dimension. For instance, the clothing stores of the brand Abercrombie & Fitch created a luxury image through designing a dark environment with dimmed lighting, black painted wood floors, brown leather chairs and the deployment of sexy men (Driessen, 2005). A more attractive store with illuminated merchandise and colors may seduce consumers to visit the store, linger and make purchases (Summers & Hebert, 2001).

Many studies have focused on separately investigating color and lighting in retail environments. Research showed that dark environments are mostly associated with mystery and seduction (Yalch & Spangenberg, 2000). Yildirim, Akalin-Baskava and Hidayetoglu (2007) found that dark environments are associated with the impression of a smaller and more crowded environment. The study of Lin (2004) investigated the influence of light and dark environments on children's associations with the environment. The findings showed that children associate dark environments and dark colors with negative emotions while light environments and light colors were associated with positive emotions.

Bellizzi, Crowley and Hasty (1983) demonstrated the extent to which different colors affect the evaluation of a store. The results showed that people feel drawn to warm colors (red, yellow, orange), but judge these colors as unpleasant (Bellizzi, Crowley & Hasty, 1983). Park and Farr (2007) investigated the influence of color quality and lighting on consumers' emotional states and behavioral intention. The results showed that color appearance and color temperature influence consumers' emotional states and behavioral intention. Older adults experience a higher color temperature as less cool than younger adults. In addition, older adults prefer a light appearance in all conditions, while the preference for light appearance varies among young adults.

LaGuisa and Perney (1974) conducted an experiment in which products were placed under bright lighting and dim lighting. The results indicated that products seem more investigated and touched when they are placed under bright lighting than under dim lighting (LaGuisa & Perney, 1974). Areni and Kim (1994) also found that consumers examined more products under bright lighting conditions compared to products under soft lighting conditions. The research was carried out at a restaurant that featured a wine cellar. The wine cellar was well visible through a floor of glass where people could visit the cellar, taste wines or buy bottles of wine. In this setting, the impact of in-store lighting was examined on consumers' reaction regarding the cellar, their purchasing behavior and the tendency to sample the wines. More wines were tasted and purchased when the bottles of wine were placed under bright lighting compared to soft lighting.

Lighting can influence the size and quality of a store as well. Boyce, Lloyd, Eklund and Brandston (1996) investigated how lighting could be used to create a certain atmosphere in a store. The lighting was measured through consumer opinions and merchandise sales. The results showed that consumers thought that the store seemed bigger, more comfortable and more pleasant to the eye when bright lighting was used as opposed to the use of dim lighting. Wheatley and Chiu (1977) examined the influence of

dark and light carpeting on consumers' perceived quality. The results showed that consumers evaluate the dark carpet sample as higher quality than the light carpet sample.

Finally, lighting studies show the impact on consumers' time spending in stores. In the study of Summers and Hebert (2001), consumers were subjected to merchandise in the store. Different types of lighting surrounded the products and video cameras recorded consumer behavior. The findings showed that consumers spend more time in the store when additional accent lighting is present in the display (Summers & Hebert, 2001).

2.2.2 Ambient element: scent

Another ambient element that plays a major role in the retail environment is scent. Scent can be seen as the sense with the strongest connection to emotions in the brain (Mitchell, Kahn & Knasko, 1995). Retailers use scent to attract consumers and encourage them to make purchases (Davies, Kooijman & Ward, 2003). Research showed that scent is a powerful tool to influence consumer behavior, specifically consumers' emotional state, product and store evaluations (Bitner, 1992; Zeithaml & Bitner, 2000; Bradford & Desrochers, 2009).

Ambient scents have the potential to influence consumers' perception of the entire store and products (Parsons, 2009). Studies of Hirsch (1990) and Miller (1993) examined the use of scent on consumers' purchase intentions. The results showed that the likelihood to purchase sports shoes increased when consumers tried to wear the shoes in a mixed floral-scented room as opposed to a room without a specific scent. Spangenberg, Crowley and Henderson (1996) examined the influence of different fragrances on consumers' evaluation of the environment. Four fragrances were measured: ginger, lavender, mint and orange. The results indicated that the environment with a fragrance was experienced as more pleasant than the environment where no fragrance was added. No differences were found between the four fragrances. The use of scent leads to positive shopping evaluations and approach behavior. Hirsch (1995) studied the influence of scents in a casino. The casino made use of a pleasant scent, an unpleasant scent and a control condition where no specific scent was added. It was examined to what extent the use of scent affects the revenue in a weekend. The results showed that a pleasant ambient scent in the casino gave 45% more revenue compared to the presence of an unpleasant scent or no scent (Hirsch, 1995).

The use of scent in retail stores can determine consumers' time spending and time estimation in the environment. Two theories in the literature can explain the estimated time. The Attentional Model implies that the time seems to go faster when much attention is paid to the environment (Pruyn & Smidts, 1998). The time seems to slow down when

much attention is paid to the time (Pruyn & Smidts, 1998). The Contextual Change Model assumes that a longer perceived time duration is the result of a large number of contextual changes (Block & Zakay, 1996). These contextual changes can be changes in the stimulus as well as changes in consumers' mood or emotion (Block & Zakay, 1996).

Spangenberg, Crowley and Henderson (1996) investigated the effect of ambient scent on the perceived time duration. The results showed that the presence of a pleasant odor had no influence on the actual time consumers spent in the store, but it decreased consumers' time estimation. The time estimation was 11 minutes when no scent was present and was reduced to 9.6 minutes in the presence of scent. Guéguen and Petr (2006) studied the effects of odor on the length of stay and the buying behavior of consumers. Two different fragrances were distributed in a restaurant: lemon scent and lavender scent. The study examined how much time consumers remained seated and what was purchased. The results showed that lavender increased the length of stay of customers and the amount of purchases (Guéguen & Petr, 2006).

Scents can also be classified into different types, each containing a particular dimension. Many odors used in studies include lavender, vanilla, jasmine, sandalwood and cinnamon. These odors are often selected on an arousal dimension. In line with the focus on color and lighting, the starting point in this study will be on scent with a distinction between fresh, light scents and dark, heavy scents. When people are asked to distinguish between odors, people will have direct associations with dark and light dimensions of scents. People associate dark scents with dark colors and environments and light scents with light colors and environments (Kemp & Gilbert, 1997). Research showed that people experience rosemary and lavender as dark, intense and sultry scents, while vanilla, lemon and sandalwood are perceived as soft and light scents (Higuchi, Shoji & Hatayama, 2002). Torii, Fuduka, Kanemoto, Miyanchi, Hamazu and Kawasaki (1988) examined the image of lavender and jasmine scent. The findings suggested that lavender could be seen as a heavy, sedative scent while jasmine is supposed to be a light, stimulating scent.

2.3 Congruence and processing fluency

Although research has shown that each of the atmospheric elements, design and scent, has effect on consumers store evaluation and emotions, it is expected that these elements interact when they are used simultaneously. Many of the studies of atmospheric elements have explored one element, while only a few studies have combined multiple atmospheric elements. Previous research conducted in retail settings showed that consumers experience

more positive emotions, approach behavior, impulse buying and satisfaction when two environmental variables are congruent (Mattila & Wirtz, 2001).

The congruence between scent and products in stores is important to improve the store image and to create a positive attitude regarding the store. Some scents are perceived as pleasant but are inappropriate in a particular environment. Gulas and Bloch (1995) showed that the scent of flowers is generally perceived as pleasant, but is not suitable to spread in, for example, a motorcycle shop. Pomerantz (1981) indicated that misfit between odor and product leads to contradictions resulting in inadequate evaluations of the product or store. Spangenberg, Grohmann and Sprott (2005) investigated the fit between scent and components of the environment and found that a 'Christmas scent' was evaluated more positively when more Christmas characteristics were present.

Spence, Puccinelli, Grewal and Roggeveen (2014) showed that congruent multisensory store environments, such as vision and olfaction, are rated as more pleasant and inviting than store environments that make less use of consumers' senses. Bone and Jantrania (1992) examined the congruence by linking advertising of sunscreen or household cleaners with coconut or lemon scent. The results showed that matching scents are more able to improve evaluations than incongruent scents (Bone & Jantrania, 1992). Specifically, the evaluations of consumers of products are more positive when the products are scented. Bradford and Desrochers (2009) investigated the congruence between different ambient scents and the evaluation of products. The findings suggested that the congruence between ambient scents and products leads to increasing time and money consumers spend in a store and a more positive product evaluation.

When a scent does not fit the environment and is not congruent, people can feel uncomfortable and the scent can have a negative influence on the product or store evaluation (Spangenberg, Grohmann & Sprott, 2005). Processing fluency is the ease with which information can be processed to create a clear image in the mind of consumers (Reber, Schwarz & Winkielman, 2004). Reber, Schwarz and Winkielman (2004) developed the processing fluency theory about the ease with which information is processed in the human mind. The theory assumed that attributes that can be easily processed are evaluated more positively and can create more pleasurable attitudes than attributes that are difficult to process (Reber, Schwarz & Winkielman, 2004).

Overall research on interaction effects of the difference between light and dark store environments in combination with light and dark scents in fashion stores is rare and

further research is needed to evaluate the possible interaction effects for different fashion stores. In general, consumers shop for pleasure and want a pleasant environment with a good image. When atmospheric elements, such as color/lighting and scent, can make this environment more pleasant, it can be expected that the combination of both may have positive effects on consumers' emotions and the evaluation of the store environment.

2.4 Hypotheses

Based on the reviewed literature in the previous sections, a number of hypotheses can be derived. In order to investigate these hypotheses, store design and scent will be manipulated. It is expected that the use of scent in fashion stores positively influences the evaluation of the store as opposed to the use of no scent (neutral scent). The following hypothesis is formulated:

H1: *The presence as opposed to the absence of scent positively influences consumers' evaluation of the store environment, intention to visit the store, emotional state (pleasure, arousal, dominance), merchandise perception, value for money and time perception.*

The extent to which scent affects the store evaluation depends on the fit of the scent with the store. It is important to follow the concept of congruence (Oakes & North, 2008). In this study, it will be expected that a scent congruent with the store design, as opposed to an incongruent scent, positively influences the store evaluation and emotions of consumers. The following hypothesis is formulated:

H2: *Congruence as opposed to incongruence between store design and scent positively influences consumers' evaluation of the store environment, intention to visit the store, emotional state (pleasure, arousal, dominance), merchandise perception, value for money, evaluation of the scent and time perception.*

In addition, it is expected that congruence of store design and scent enhances the ease of processing. Incongruence among store design and scent will decrease processing fluency and has negative impact on consumer evaluations and emotions. It is also expected that processing fluency positively influences consumers' time estimation. When information can be easily processed, consumers will feel that the time passes more quickly than when information is difficult to process. Processing fluency will mediate the influence of

congruence among store design and scent on consumer responses towards the store. The following hypothesis is formulated:

H3: *Processing fluency mediates the effect of store design – scent congruence on consumers' evaluation of the store environment, intention to visit the store, emotional state (pleasure, arousal, dominance), merchandise perception, value for money, evaluation of the scent and time perception.*

Because consumers respond differently to environmental features, it is possible that store and product evaluations differ between gender. Gender will moderate the influence of congruence between store design and scent. The following hypothesis is formulated:

H4: *Gender moderates the effect of store design – scent congruence on consumers' evaluation of the store environment, intention to visit the store, emotional state (pleasure, arousal, dominance), merchandise perception, value for money, evaluation of the scent and time perception.*

2.5 Research design

Figure 1 presents an overview of the variables that will be examined in this study. Store design and scent are the independent variables that are manipulated to examine whether they affect the consumer responses through the processing fluency as mediator. The consumer responses are the dependent variables consisting of: emotional state, evaluation of the store environment, evaluation of the scent, intention to visit the store, merchandise perception, value for money and time perception. Gender is the moderator in this study.

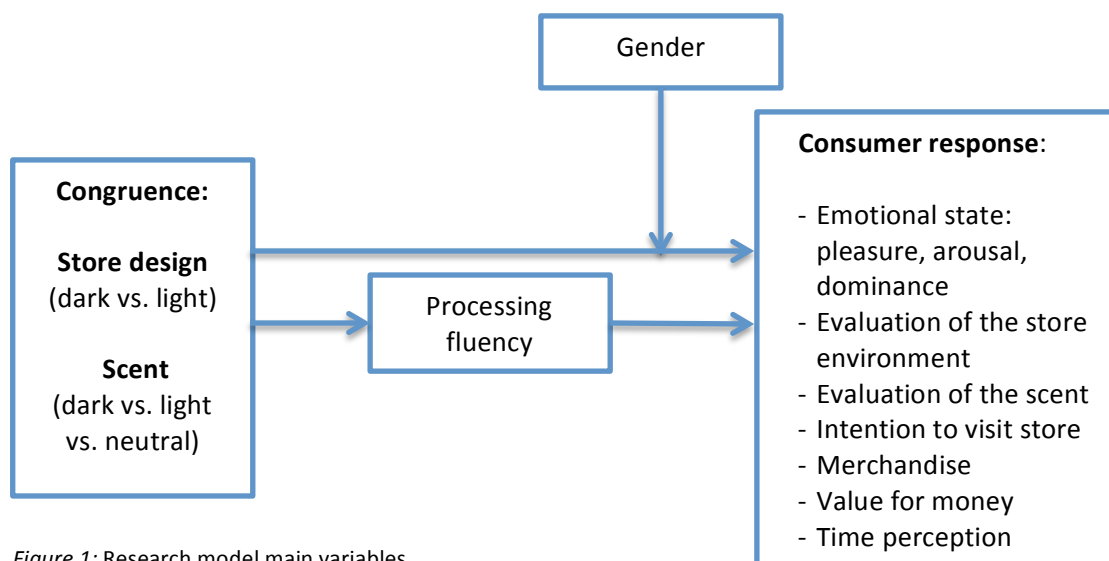


Figure 1: Research model main variables

3. METHOD SECTION PRE-STUDY

A pre-study is necessary to examine which store designs and scents are suitable for the main study. Three pre-studies have been conducted to gain insight into these variables.

3.1 Store design

The goal of this pre-study was to validate and select two store designs appropriate for the main study, which differ from each other on dark and light dimensions of the store.

3.1.1 Method

In order to select store designs varying on light and dark dimensions, six moodboards of store designs were created to be included in the pre-study: three moodboards with a dark store design and three moodboards with a light store design. The store designs vary based on store atmosphere. By means of a questionnaire it was found which store design was perceived as the most light store design and which store design was perceived as the most dark store design. The store designs are shown in Appendix A.

In total, 20 respondents participated in the pre-test, consisting of 6 males (30%) and 14 females (70%). The average age was 40.40 years ($SD = 19.14$) in the age category of 18 and 78 years. The procedure was as follows: the questionnaire started with a short introduction of the experiment. After the introduction instructions were given about the procedure of the pre-test. Subsequently, participants were randomly shown six moodboards representing the store designs of fashion stores. The moodboards were shown on a large hard copy of A3 size. For each moodboard 12 items investigated the perceptions of consumers regarding the store design. Examples of the items were: *Light – Dark*, *Transparent – Mysterious*, *Warm – Cold* and *Open – Closed*. Participants answered the items on a 5-point scale. All items from the questionnaire can be found in Appendix B.

3.1.2 Results

A one-way between subjects ANOVA was conducted to compare the effects of store design on consumer perceptions regarding the store based on light and dark dimensions. 12 items formed a reliable scale and their average scores were measured. The results show a significant effect of store design on store perception for the six conditions ($F(5, 14) = 96.83$, $p < .001$). The store designs that differed the most from each other according to the store perception were selected for the next pre-study and main study. Figure 2 shows the results of the consumer perceptions regarding the light and dark store designs.

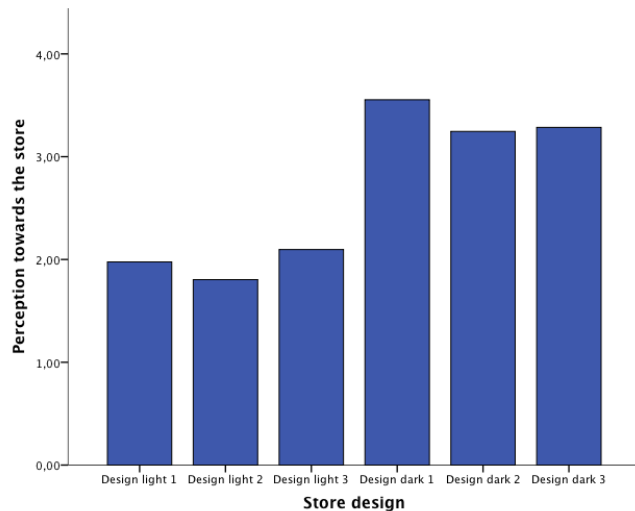


Figure 2: Mean Scores Light and Dark Store Designs on Store Perception

When comparing the three light store designs in Figure 2, the results show that moodboard design light 2 ($M = 1.80$, $SD = 0.28$) scores the lowest on store perception and can be seen as the most light store design. When comparing the three dark store designs, the results in Figure 2 show that moodboard design dark 1 ($M = 3.55$, $SD = 0.41$) scores the highest on store perception and can be seen as the most dark store design. Based on these findings, the two moodboards in Figure 3 were selected for pre-study 3 and the main study.

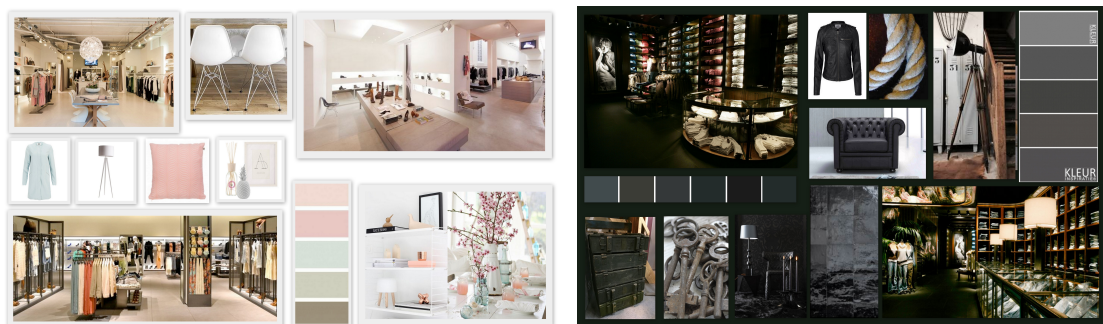


Figure 3: Pre-selection Light Store Design and Dark Store Design

3.2 Scent

A small interview study has been carried out to examine which scents were used in fashion stores. Based on the results the type of scent for the main study was chosen. 30 fashion stores in the city centre of Enschede and two stores outside Enschede were approached with the question whether they make use of scent in the store, which type of scent they use and the reason why they make use of scent or not. This resulted in a short interview, which showed that only five of the 32 fashion stores make use of scent. Hunkemöller, Abercrombie & Fitch and Scotch & Soda developed their own perfume that is sprayed in the store. Sissy

Boy and Aktiesport use fragrance oils. Detailed information of the interviews with the fashion stores is shown in Appendix C.

The results indicated that the majority of the fashion stores do not make use of scent to attract consumers. This is because they have no knowledge of the effects of scent, they never have thought of the use of scent or they do not find it of added value. The fashion stores that make use of scent in the store use different types of scents: perfumes and fragrance oils. The use of perfumes in stores has the risk that people cannot stand the intensity of the smell, the perfumes contain too many chemicals and people get stinging eyes (Wolkoff, Wilkins, Clausen & Nielsen, 2006). Therefore, fragrance oils will be used in this study, which vary on scent intensity.

3.3 Store design and scent

The third pre-study aims to investigate what scents best fit the dark store design and light store design resulting from pre-study 1. Appendix D shows the store designs.

3.3.1 Method

In order to find out which scent best fit the light store design and which scent best fit the dark store design, seven scents were evaluated in the third pre-study. The seven selected scents differ from each other based on fragrance notes. Some scents include light and fresh notes and other scents heavy and dark notes. The seven scents used in this pre-test were: *sandalwood, jasmine, hammam, fig, passionflower, lavender* and *avocado*. By means of a questionnaire it was examined which odor was perceived as the lightest smell matching the light store design and which odor was perceived as the most heavy and dark smell matching the dark store design. The scents are shown in Appendix D.

In total, 20 respondents participated in the pre-test, consisting of 9 males (45%) and 11 females (55%). The average age was 37.05 years ($SD = 15.45$) in the age category of 18 and 78 years. The procedure was as follows: the questionnaire started with a brief introduction of the experiment. After the introduction several instructions were given about the procedure of the study. Subsequently, participants had to identify with the store that represented the moodboard and smell seven fragrance oils on special fragrance sticks. The study was carried out in a meeting room where no added scent was present. Before the procedure started, participants were asked to write down the letter (A-G) that was present on the fragrance oil. When participants got the scent stick, they had to keep them 10-15 cm from the nose and move them a few times back and forth. After smelling the scent,

participants had to indicate on a 5-point scale to what extent the smell matched moodboard 1. After each odor, participants were asked to smell their own skin to neutralize the nose. This was possible because participants were instructed not to use perfume on the skin prior to the study. The same procedure was performed for moodboard 2. The questionnaire can be found in Appendix E.

3.3.2 Results

A one-way between subjects ANOVA was conducted to investigate what scents best fit the dark and light store design. There was a significant effect of scent on the dark store design ($F(1, 18) = 79.22, p < .01$) and the light store design ($F(1, 18) = 34.21, p < .01$). The average scores of the scents were measured in order to determine which scents best fit the store designs. The scents with the highest mean scores on appropriateness to the two store designs were selected for the main study. Figure 4 presents the mean scores of the scents on the fit with the dark and light store design.

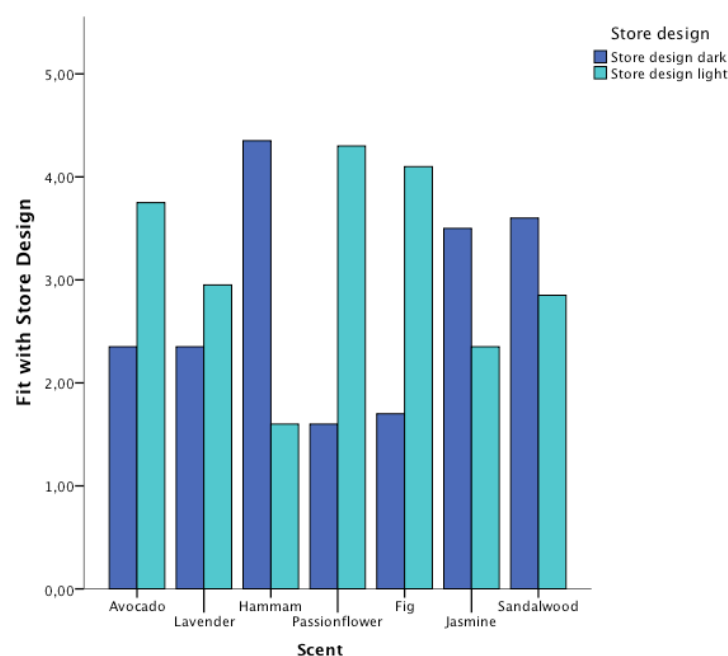


Figure 4: Mean Scores Fit Scent on Dark and Light Store Design

Comparing the scents on the dark store design showed that hammam scent ($M = 4.35, SD = 0.99$) has the highest mean score on the fit with the dark store design. Comparing the scents on the light store design showed that passionflower scent ($M = 4.30, SD = 0.98$) reached the highest mean score on the fit with the light store design. Based on these results, hammam scent represented the dark scent and passionflower scent the light scent in the main study.

4. METHOD SECTION MAIN STUDY

4.1 Experimental design

To explore the congruence of store design and scent, the study consisted of a 2 (*dark store design vs. light store design*) x 3 (*dark scent vs. light scent vs. neutral scent*) between subject design with gender (*male vs. female*) as moderator. Store design and scent were the independent variables. The dependent variables were the consumer responses consisted of: evaluation of the store environment, merchandise perception, value for money, intention to visit the store, emotional state (pleasure, arousal and dominance), evaluation of the scent and time perception. Processing fluency was the mediator.

The influence of store design and scent on consumer responses towards fashion stores was examined by means of a scenario study. In this study, the scenario was about a new fashion store located in the hometown of the participant. Participants had to imagine themselves in the situation and then they were shown the design of the fashion store through a moodboard including a particular scent. The moodboards and scents emerged from the pre-studies were used to create four experimental conditions and two control conditions. The research conditions are shown in Table 1. Appendix F shows the visual stimuli of the six research conditions.

Table 1:
Research conditions experiment

	Dark scent (hammam)	Light scent (passionflower)	Neutral scent
Dark store design	Condition 1:	Condition 2:	Condition 3:
	Congruence	Incongruence	Control
Light store design	Condition 4:	Condition 5:	Condition 6:
	Incongruence	Congruence	Control

4.2 Participants

The sample population included men and women of 18 years and older who live in the Netherlands. The total number of participants in the experiment was 156 consisting of 78 males (50%) and 78 females (50%). The average age was 33.17 years ($SD = 13.38$) in the age category of 18 and 78 years. Furthermore, the most common level of education is WO (50.6%) followed by HBO (24.4%). One respondent simply followed no or primary school (0.6%). Table 2 shows the characteristics of the participants.

Table 2:
Demographic characteristics participants

		N	%
Gender	Male	78	50.0
	Female	78	50.0
Education	No/primary school	1	0.6
	VMBO/MAVO/LBO	8	5.1
	HAVO/VWO	17	10.9
	MBO	13	8.3
	HBO	38	24.4
	WO	79	50.6

All six conditions consisted of 26 people including 13 males and 13 females. The mean age of the participants was the highest in condition 4 ($M = 37.69$, $SD = 15.76$) and the lowest in condition 3 ($M = 29.31$, $SD = 10.55$). Because the sample characteristics were the same in all conditions, no significant differences between participants were found.

4.3 Procedure

The experiment was conducted in a shopping centre located in the city centre of Enschede. Consumers in the age category of 18 years and older participated in the study.

Before the data were collected, preparation of the research conditions was needed. The dark and light store designs presented through the moodboards were printed three times in a copy shop and plasticized. Subsequently, special scent sticks were placed on the bottom of the six moodboards. These sticks were injected with a passionflower scent, a hammam scent or no scent depending on the condition in which participants were located.

The research proceeded as follows: consumers who walked through the city centre of Enschede were asked whether they were willing to cooperate in the study. If the participants were willing to participate, they were told what was expected from them. The participants were informed about the anonymity and voluntariness of the study. After agreement to participate, participants were given a questionnaire.

Participants were randomly assigned to one of the six conditions and they read a scenario about a new fashion store located in the city. They were asked to imagine themselves in the situation depicted. Subsequently, participants were presented a

moodboard with a store design and a scent. The scent was manipulated and not used in the control conditions. Next, participants had to fill in the questionnaire. Completing the questionnaire took place in five to ten minutes. Once participants completed the questionnaire, it could be handed to the researcher and the participants were thanked for their participation.

4.4 Measures

Evaluation of the store environment was divided into a general evaluation of the store and a specific evaluation of the store.

General evaluation of the store was measured with four items. These items came from Fisher's (1974) environmental scale. The items were: *Attractive – Unattractive*, *Pleasant – Unpleasant*, *Dull – Bright* and *Positive – Negative*. On a 7-point scale, participants had to indicate their impressions towards the store.

Specific evaluation of the store was divided in two dimensions: *lighting* and *arousal*. The lighting dimension was measured with four items formed by the researcher. These items were: *Light – Dark*, *Darkness – Bright*, *Transparent – Mysterious* and *Open – Closed*. The arousal dimension was also measured with four items. These items were: *Lively – Unlively*, *Ordinary – Intense*, *Much Atmosphere – No Atmosphere* and *Exciting – Boring*. On a 7-point scale, participants had to indicate their impressions towards the store.

Merchandise was tested with four items. Two items from Park and Rabolt (2009) were used: *Modern – Outdated* and *Elegant – Inelegant*. Also two items from the study of D'Astous and Levesque (2003) were adopted: *Conservative – Innovative* and *Stylish – Styleless*.

Value for money was measured with the item '*I expect that I have to pay a lot for the clothes in this store*'. On a 7-point scale, participants had to indicate the expectations regarding the merchandise of the store.

Emotional state was divided into pleasure, arousal and dominance.

Pleasure was measured with four items on a 7-point scale. The items were derived from the scale of Mehrabian and Russell (1974). The items were: *Satisfied – Unsatisfied*, *Pleased – Annoyed*, *Contented – Melancholic* and *Hopeful – Despairing*.

Arousal was tested with three items on a 7-point scale. These items also came from the emotional-scale of Mehrabian and Russell (1974). The items included: *Excited – Calm, Jittery – Dull, Aroused – Unaroused*.

Dominance was tested with three statements from the study of Van Rompay, Galetzka, Pruyn and Garcia (2008). The items included: *'In this store, I can easily find what I am looking for', 'In this store, I feel in control over the situation' and 'In this store, I am the center of attention'*. On a 7-point scale, participants had to indicate their feelings towards the store.

Intention to visit the store was measured with two statements from the scale of Dodds, Monroe and Grewal (1991). These items were: *'I am considering to visit the fashion store'* and *'I would definitely visit this fashion store'*. Participants had to indicate on a 7-point scale how likely or unlikely it was they would visit the store.

Evaluation of the scent was divided in a general scent evaluation and a specific scent evaluation.

General evaluation of the scent was tested with four items. These items came from the scale of Spangenberg, Crowley and Henderson (1996). These items were: *Attractive – Unattractive, Comfortable – Uncomfortable, Positive – Negative and Pleasant - Unpleasant*. Respondents had to indicate on a 7-point scale to what extent they considered these items applicable to the scent.

Specific evaluation of the scent was tested with six items on a 7-point scale. The items were: *Cold – Warm, Heavy – Light, Sensual – Not Sensual, Fresh – Sultry, Fruity – Not Fruity, Seductive – Not Seductive*.

Time perception was measured by the actual time and the estimated time. The estimated time was measured by asking participants, *'Please provide an estimate of how long you think it took you to fill out this questionnaire'*. The actual time for completing the questionnaire was measured by the researcher.

Processing fluency measures the ease with which participants could form an impression of the store. Three statements from Ellen and Bone (1991) were used in adapted form to measure this construct: *'When I see the store, I get a clear picture of the store', 'The store*

gives a coherent whole’ and *‘When I see the store, I can easily process the impressions’*. Respondents had to answer on a 7-point scale the extent they disagree or agree.

Table 3 gives an overview of the Cronbach's Alpha's and the number of items a variable consisted. Table 3 showed all variables have a Cronbach's Alpha higher than .7, which corresponds to reliable constructs (Tavakol & Dennick, 2011).

Table 3
Cronbach's Alpha Mediator and Dependent Variables

Variable	Cronbach's Alpha	Number of items
General evaluation of the store	.867	4
Specific evaluation of the store: lighting	.957	4
Specific evaluation of the store: arousal	.746	4
Merchandise	.721	4
Value for money*	-	1
Pleasure	.922	4
Arousal	.767	3
Dominance	.791	3
Intention to visit the store	.905	2
General evaluation of the scent	.927	4
Specific evaluation of the scent	.788	6
Processing fluency	.832	3

* No Cronbach's Alpha is possible because this variable is measured with one item

5. RESULTS

A multivariate analysis of variance (MANOVA) with $\alpha = .05$ was performed to examine the relationship between the variables in the research model. The dependent variables were: evaluation of the store environment, merchandise, value for money, intention to visit the store, emotional state (pleasure, arousal and dominance), evaluation of the scent and time perception. The independent variables were: store design and scent. Gender was the moderator. Table 4 shows the results.

Table 4
Effects Multivariate Analysis of Variance with independent variables Store design, Scent and Gender (moderator)

Effect		Value	<i>F</i>	<i>df</i>	Error <i>df</i>	<i>p</i>	Partial eta Squared
Type store design (dark, light)	Pillai's Trace	.871	47.999	12	85	.000	.874
	Wilks' Lambda	.129	47.999	12	85	.000	.874
	Hotelling's Trace	6.776	47.999	12	85	.000	.874
	Roy's Largest Root	6.776	47.999	12	85	.000	.874
Type scent (dark, light, neutral)	Pillai's Trace	.468	6.231	12	85	.000	.468
	Wilks' Lambda	.532	6.231	12	85	.000	.468
	Hotelling's Trace	.880	6.231	12	85	.000	.468
	Roy's Largest Root	.880	6.231	12	85	.000	.468
Gender (male, female)	Pillai's Trace	.155	1.301	12	85	.233	.155
	Wilks' Lambda	.845	1.301	12	85	.233	.155
	Hotelling's Trace	.184	1.301	12	85	.233	.155
	Roy's Largest Root	.184	1.301	12	85	.233	.155
Type store design *	Pillai's Trace	.178	1.529	12	85	.130	.178
Type scent	Wilks' Lambda	.822	1.529	12	85	.130	.178
	Hotelling's Trace	.216	1.529	12	85	.130	.178
	Roy's Largest Root	.216	1.529	12	85	.130	.178
Type store design *	Pillai's Trace	.251	2.379	12	85	.011	.251
Gender	Wilks' Lambda	.749	2.379	12	85	.011	.251
	Hotelling's Trace	.336	2.379	12	85	.011	.251
	Roy's Largest Root	.336	2.379	12	85	.011	.251
Type Scent * Gender	Pillai's Trace	.183	1.587	12	85	.111	.183
	Wilks' Lambda	.817	1.587	12	85	.111	.183
	Hotelling's Trace	.224	1.587	12	85	.111	.183
	Roy's Largest Root	.224	1.587	12	85	.111	.183
Type store design *	Pillai's Trace	.102	.803	12	85	.647	.102
Type scent * Gender	Wilks' Lambda	.898	.803	12	85	.647	.102
	Hotelling's Trace	.113	.803	12	85	.647	.102
	Roy's Largest Root	.113	.803	12	85	.647	.102

The results showed a significant difference between the dark store design and light store design on the combined dependent variables ($F(12, 85) = 48.00, p = .000$, Wilks' Lambda = .13, partial $\eta^2 = .87$). Also a significant difference between the dark scent, light scent and neutral scent was found on the dependent variables ($F(12, 85) = 6.23, p = .000$, Wilks' Lambda = .53, partial $\eta^2 = .47$). No significant difference was found between males and females ($F(12, 85) = 1.30, p = .233$, Wilks' Lambda = .85, partial $\eta^2 = .16$).

In addition, the interaction effects were studied. The results showed a significant interaction effect between store design and gender on the dependent variables ($F(12, 85) = 2.38, p = .011$, Wilks' Lambda = .75, partial $\eta^2 = .25$). No interaction effects were found between store design and scent ($F(12, 85) = 1.53, p = .130$, Wilks' Lambda = .82, partial $\eta^2 = .18$), scent and gender ($F(12, 85) = 1.59, p = .111$, Wilks' Lambda = .82, partial $\eta^2 = .18$) and store design, scent and gender ($F(12, 85) = .80, p = .65$, Wilks' Lambda = .90, partial $\eta^2 = .10$) on the dependent variables.

The main effects and interaction effects from the multivariate analysis of variance (MANOVA) resulted into a more detailed investigation into the effects of the dependent variables. A two-way univariate analysis of variance (ANOVA) $\alpha = .05$ was conducted with store design, scent and gender as independent variables and respectively evaluation of the store, merchandise, value for money, emotional state (pleasure, arousal, dominance), intention to visit the store, evaluation of the scent and time perception as the dependent variables. The results will be reported per variable.

5.1 Evaluation of the store

General evaluation of the store. The results showed a significant main effect of store design on the general store evaluation ($F(1, 144) = 15.77, p < .001$, partial $\eta^2 = .10$). Participants evaluate the light store design ($M = 5.38, SD = 1.16$) significantly higher than the dark store design ($M = 4.72, SD = 1.11$), $t(154) = -3.66, p < .01$. The main effect for scent is not significant ($F(2, 144) = .23, p = .795$, partial $\eta^2 = .00$).

In addition, Figure 5 shows a significant interaction effect between store design and gender on the general evaluation of the store ($F(1, 144) = 22.73, p < .001$, partial $\eta^2 = .14$). As can be seen in Figure 5 (partly in line with predictions), female participants preferred the light store design, whereas male participants did not clearly distinguish between the store designs. There is no interaction effect between store design and scent, but the results in Figure 6 showed a marginal effect ($F(2, 144) = 2.45, p < .10$, partial $\eta^2 = .03$). This figure suggests that (in line with predictions) the dark store design was evaluated more positively

when paired with a dark scent whereas the light store design was evaluated more positively when paired with a light scent. No significant differences were found between the scents. There were also no interaction effects between scent and gender ($F(2, 144) = .65, p = .523$, partial $\eta^2 = .01$) and between store design, scent and gender ($F(2, 144) = .59, p = .556$, partial $\eta^2 = .01$).

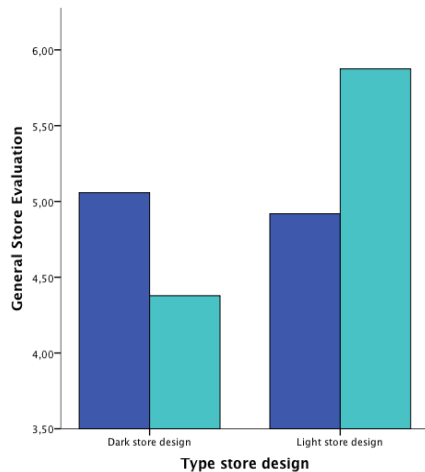


Figure 5: Interaction effects of Store Design and Gender on General Store Evaluation

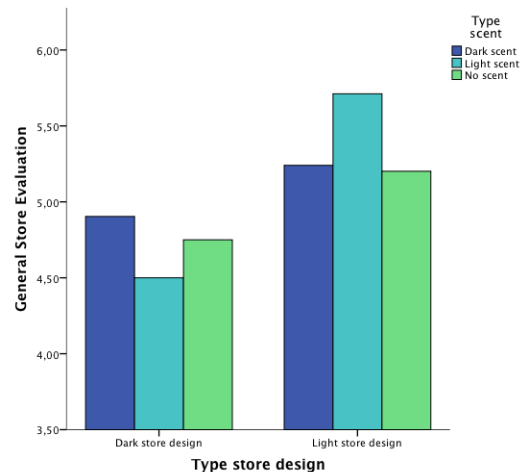


Figure 6: Marginal Interaction effects of Store Design and Scent on General Store Evaluation ($p < .10$)

Specific evaluation of the store: lighting. The results showed a significant main effect of store design on the lighting dimension of consumers' specific evaluation of the store ($F(1, 144) = 743.24, p < .001$, partial $\eta^2 = .84$). Participants evaluate the light store design ($M = 6.07, SD = .80$) as more bright, transparent and open than the dark store design ($M = 2.47, SD = .89$), $t(154) = -26.51, p < .001$. There was no significant effect of scent on the lighting dimension of consumers' specific evaluation of the store ($F(2, 144) = 2.98, p = .540$, partial $\eta^2 = .04$).

In addition, Figure 7 shows a significant interaction effect between store design and gender on the lighting dimension of consumers' specific evaluation of the store ($F(1, 144) = 4.17, p < .05$, partial $\eta^2 = .04$). The figure shows that female participants distinguished more strongly between the two store designs than male participants and they both prefer the light store design. This was partly in line with the predictions. No interaction effects were found between store design and scent ($F(2, 144) = 1.32, p = .270$, partial $\eta^2 = .02$), scent and gender ($F(2, 144) = .30, p = .742$, partial $\eta^2 = .00$), and store design, scent and gender ($F(2, 144) = .17, p = .843$, partial $\eta^2 = .00$).

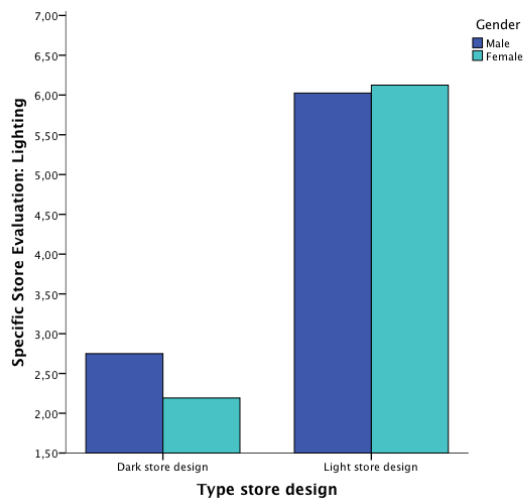


Figure 7: Interaction effects of Store Design and Gender on Specific Store Evaluation: Lighting

Specific evaluation of the store: arousal. The results showed no significant main effect of store design on the arousal dimension of consumers' specific evaluation of the store ($F(1, 144) = .57, p = .450$, partial $\eta^2 = .00$). There was also no significant main effect of scent on the arousal dimension of consumers' specific evaluation of the store ($F(2, 144) = 1.67, p = .191$, partial $\eta^2 = .02$).

In addition, Figure 8 shows a significant interaction effect between store design and scent on the arousal dimension of consumers' specific evaluation of the store ($F(2, 144) = 3.46, p < .05$, partial $\eta^2 = .05$). The figure shows, in line with predictions, that the light store design was evaluated as more lively and exciting when the light scent was used as opposed to the use of a dark scent or no scent. There were no significant differences between the scents in the dark store design on the arousal dimension. There was also a significant interaction effect of store design and gender on the arousal dimension of consumers' specific evaluation of the store ($F(1, 144) = 5.00, p < .05$, partial $\eta^2 = .03$). Figure 9 shows, in line with predictions, that male participants evaluate the dark store design as more lively and exciting than the light store design while female participants evaluate the light store design as more lively, ordinary and exciting than the dark store design. Male participants distinguished more strongly between the store designs.

No interaction effects were found between scent and gender ($F(2, 144) = 1.67, p = .192$, partial $\eta^2 = .02$) and between store design, scent and gender ($F(2, 144) = .04, p = .961$, partial $\eta^2 = .00$).

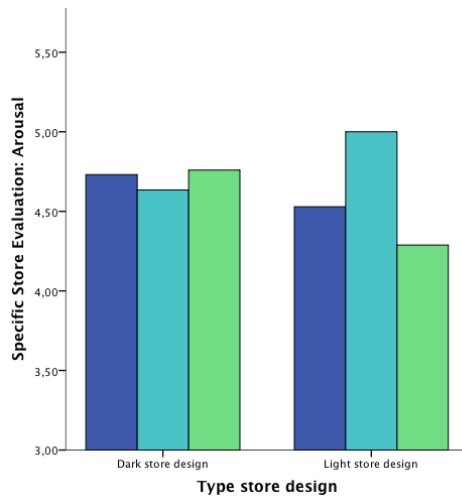


Figure 8: Interaction effects of Store Design and Scent on Specific Store Evaluation: Arousal

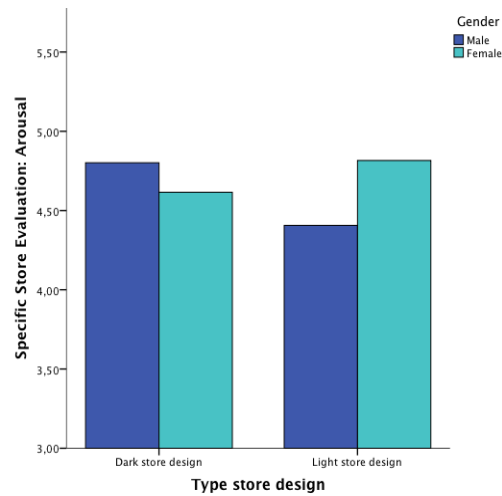


Figure 9: Interaction effects of Store Design and Gender on Specific Store Evaluation: Arousal

5.2 Merchandise

There was a significant main effect of store design on merchandise perception ($F(1, 144) = 23.95, p < .001$, partial $\eta^2 = .14$). Merchandise perception scored significantly higher in the light store design ($M = 5.72, SD = .84$) than in the dark store design ($M = 5.08, SD = .80$), $t(154) = -4.87, p < .001$, which means participants assess the merchandise in the light store design as more modern, innovative and stylish than in the dark store design. No main effect of scent was found on merchandise perception ($F(2, 144) = 1.20, p = .305$, partial $\eta^2 = .02$).

In addition, no significant interaction effects were found between store design and scent ($F(2, 144) = 2.10, p = .126$, partial $\eta^2 = .03$), store design and gender ($F(1, 144) = .09, p = .765$, partial $\eta^2 = .00$), scent and gender ($F(2, 144) = 1.01, p = .367$, partial $\eta^2 = .01$) and store design, scent and gender ($F(2, 144) = .27, p = .760$, partial $\eta^2 = .00$).

5.3 Value for money

The results showed no significant main effect of store design on value for money ($F(1, 144) = 1.91, p = .169$, partial $\eta^2 = .01$). There is also no significant main effect found of scent on value for money ($F(2, 144) = 1.94, p = .148$, partial $\eta^2 = .03$).

In addition, no significant interaction effects were found between store design and gender ($F(1, 144) = .02, p = .90$, partial $\eta^2 = .00$), scent and gender ($F(2, 144) = .08, p = .927$, partial $\eta^2 = .00$) and store design, scent and gender ($F(2, 144) = .52, p = .60$, partial $\eta^2 = .01$) on value for money. There was also no significant interaction effect of store design and scent, but the results in Figure 10 showed a marginal effect ($F(2, 144) = 2.51, p < .10$, partial $\eta^2 = .03$). The figure showed no differences between the scents in the light store design on

the value for money. In the dark store design, participants expected they had to pay a lot of money for few clothes when a scent was present as opposed to no scent. There were no significant differences found in the dark store design between the dark scent ($M = 5.46$, $SD = 1.24$) and the light scent ($M = 5.85$, $SD = 1.12$), $t(50) = -1.17$, $p = .264$.

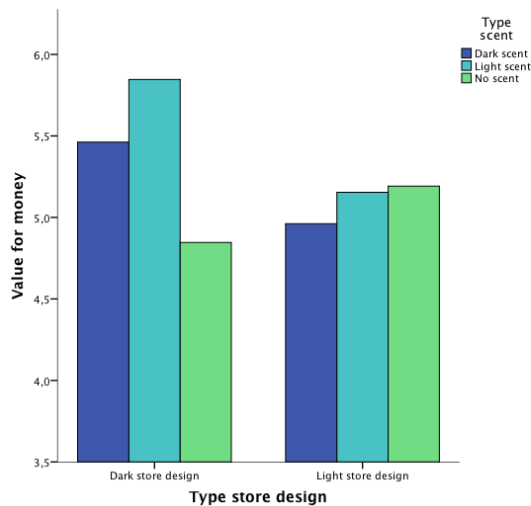


Figure 10: Marginal Interaction effects of Store Design and Scent on Value for Money ($p < .10$)

5.4 Emotional state: Pleasure, Arousal, Dominance

Pleasure. A main effect is found of store design on pleasure ($F(1, 144) = 24.47$, $p < .001$, partial $\eta^2 = .15$). Pleasure scored significantly higher in the light store design ($M = 5.16$, $SD = 1.17$) than in the dark store design ($M = 4.37$, $SD = 1.12$), $t(154) = -4.34$, $p < .001$. The results showed no main effect of scent on pleasure ($F(2, 144) = .52$, $p = .595$, partial $\eta^2 = .01$).

An interaction effect is found between store design and scent on pleasure ($F(2, 144) = 4.58$, $p < .05$, partial $\eta^2 = .06$). In line with predictions, Figure 11 shows that participants have a more pleasurable experience when the store design and scent matched. This effect was particularly pronounced in the light store design condition. Figure 12 shows an interaction effect between scent and gender on pleasure ($F(1, 144) = 26.58$, $p < .001$, partial $\eta^2 = .16$). Not in line with predictions, male participants judge the light scent as more pleasant than the dark scent or no scent condition, while female participants judge the dark scent as more pleasant than the light scent or no scent condition. Also an interaction effect is found between store design and gender on pleasure ($F(2, 144) = 4.65$, $p < .05$, partial $\eta^2 = .06$). Figure 13 shows, partly in line with predictions, that females feel more pleasant in the light store design than in the dark store design, while there are no differences in preference between males.

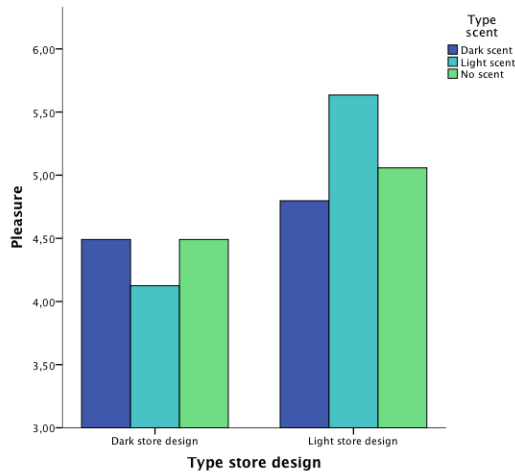


Figure 11: Interaction effects of Store Design and Scent on Pleasure

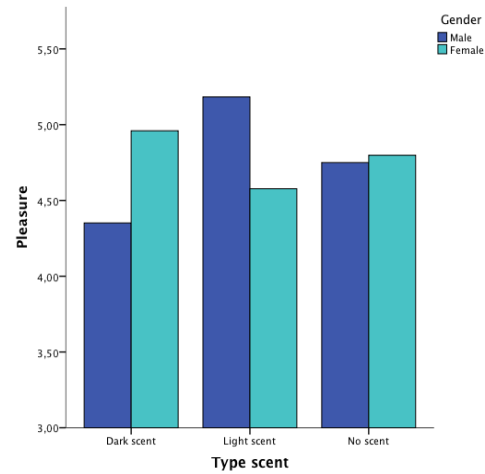


Figure 12: Interaction effects of Scent and Gender on Pleasure

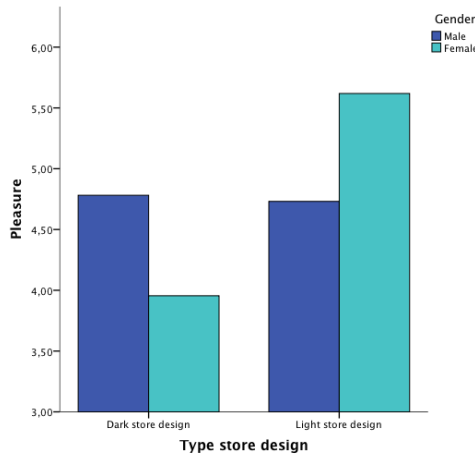


Figure 13: Interaction effects of Store Design and Gender on Pleasure

Arousal. A significant main effect is found of store design on arousal ($F(1, 144) = 39.38, p < .001$, partial $\eta^2 = .22$). Arousal scored significantly higher in the light store design ($M = 5.21, SD = .96$) than in the dark store design ($M = 4.22, SD = 1.3$), $t(154) = -5.94, p < .001$. The results showed also a significant main effect of scent on arousal ($F(2, 144) = 7.60, p < .001$, partial $\eta^2 = 1.00$). The light scent ($M = 4.96, SD = 1.13$) and no scent ($M = 4.92, SD = 1.00$) conditions scored significantly higher than the dark scent condition ($M = 4.27, SD = 1.23$).

A significant interaction effect is found between store design, scent and gender on arousal ($F(2, 144) = 3.56, p < .05$, partial $\eta^2 = .05$). Figure 14a shows the results of male participants and Figure 14b the results of female participants. As can be seen in Figure 14a, not in line with predictions, male participants display more arousal in the light store design in combination with a light scent or no scent than in the dark store design. Figure 14b shows particularly the same results for female participants. The difference is that male participants

did not clearly distinguish between the dark scents while female participants display more arousal when the dark scent is in the light store design.

No significant interaction effects were found between store design and scent ($F(2, 144) = .136, p = .873$, partial $\eta^2 = .00$), store design and gender ($F(1, 144) = 1.75, p = .188$, partial $\eta^2 = .01$), and scent and gender ($F(2, 144) = .372, p = .690$, partial $\eta^2 = .01$).

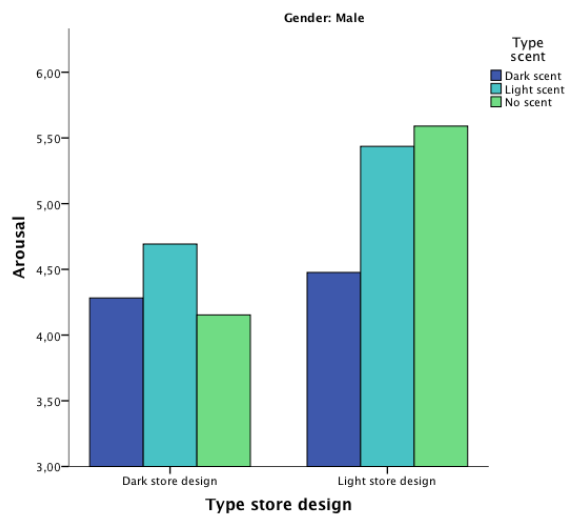


Figure 14a: Interaction effects of Store Design, Scent and Gender on Arousal: Male

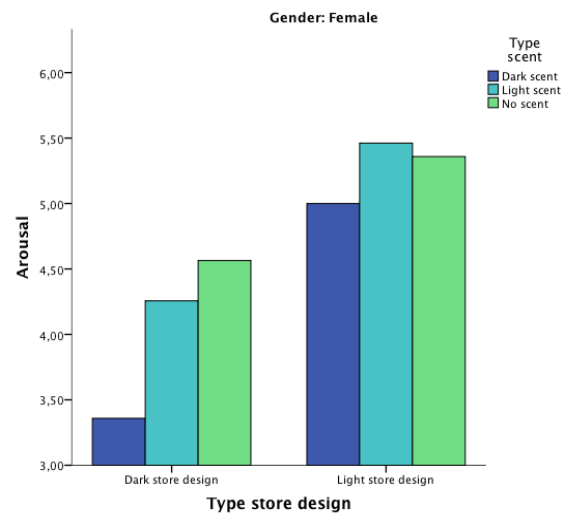


Figure 14b: Interaction effects of Store Design, Scent and Gender on Arousal: Female

Dominance. A significant main effect is found of store design on dominance ($F(1, 144) = 23.68, p < .001$, partial $\eta^2 = .141$). Dominance scored significantly higher in the light store design condition ($M = 4.65, SD = 1.29$) than in the dark store design condition ($M = 3.59, SD = 1.44$), $t(154) = -4.84, p < .001$. No significant main effect is found of scent on dominance ($F(2, 144) = .16, p = .853$, partial $\eta^2 = .00$).

In addition, no significant interaction effects were found between store design and scent ($F(2, 144) = 1.35, p = .262$, partial $\eta^2 = .02$), store design and gender ($F(1, 144) = 3.52, p = .063$, partial $\eta^2 = .02$), scent and gender ($F(2, 144) = .74, p = .481$, partial $\eta^2 = .01$), and store design, scent and gender ($F(2, 144) = .178, p = .837$, partial $\eta^2 = .00$).

5.5 Intention to visit the store

The results showed a significant main effect of store design on the intention to visit the store ($F(1, 144) = 10.76, p < .001$, partial $\eta^2 = .07$). The intention to visit the store scored significantly higher in the light store design condition ($M = 4.62, SD = 1.75$) than in the dark store design condition ($M = 3.79, SD = 1.67$), $t(154) = -3.002, p < .001$. No significant main

effect was found of scent on the intention to visit the store ($F(2, 144) = .924, p < .399$, partial $\eta^2 = .01$).

A significant interaction effect is found between store design and gender on the intention to visit the store ($F(1, 144) = .80, p < .001$, partial $\eta^2 = .14$). Figure 15 shows the results. This figure shows, in line with predictions, that the intention of female participants to visit the store is higher in the light store condition than in the dark store condition. The intention of male participants to visit the store is lower than female participants and they do not distinguish between the store designs. No significant interaction effects were found between store design and scent ($F(2, 144) = .42, p = .658$, partial $\eta^2 = .01$), scent and gender ($F(2, 144) = .803, p = .450$, partial $\eta^2 = .01$), and store design, scent and gender ($F(2, 144) = .782, p = .459$, partial $\eta^2 = .01$) on the intention to visit the store.

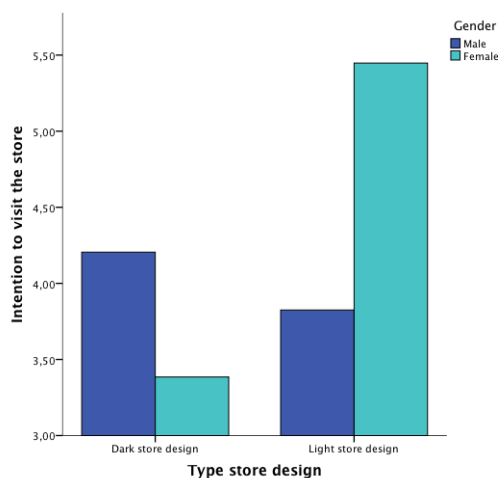


Figure 15: Interaction effects of Store Design and Gender on Intention to Visit the Store

5.6 Evaluation of the scent

General evaluation of the scent. A significant main effect was found of scent on the general scent evaluation ($F(1, 96) = 17.98, p < .001$, partial $\eta^2 = .16$). Participants evaluate the light scent ($M = 4.82, SD = 1.42$) more positively than the dark scent ($M = 3.70, SD = 1.39$), $t(102) = -4.07, p < .001$. No significant main effect was found of store design on the general scent evaluation ($F(1, 96) = 1.51, p = .223$, partial $\eta^2 = .02$).

In addition, Figure 16 shows a significant interaction effect of store design and scent on the evaluation of the scent ($F(1, 96) = 5.50, p < .05$, partial $\eta^2 = .05$). The results in Figure 16 show (partly in line with predictions) that the light scent is evaluated more positively in the light store design than in the dark store design while there are few differences between

the dark scents. The congruence is visible in the light store design condition, but not in the dark store design condition. No significant interaction effects were found between store design and gender ($F(1, 96) = 1.99, p = .162$, partial $\eta^2 = .02$), scent and gender ($F(1, 96) = .002, p < .96$, partial $\eta^2 = .000$), store design, scent and gender ($F(1, 96) = 1.25, p = .266$, partial $\eta^2 = .01$).

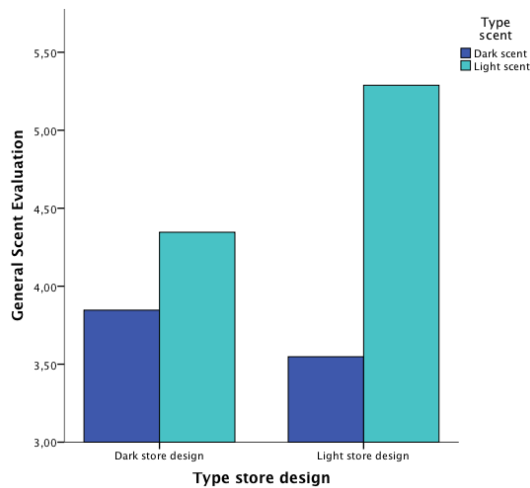


Figure 16: Interaction effects of Store Design and Scent on General Evaluation of the Scent

Specific evaluation of the scent. A significant main effect is found of scent on the specific scent evaluation ($F(1, 96) = 25.61, p < .001$, partial $\eta^2 = .21$). Participants evaluate the light scent ($M = 4.35, SD = 1.28$) as a more fresh, fruity and cold scent than the dark scent ($M = 3.20, SD = 1.01$), $t(102) = -5.12, p < .001$. No main effect is found of store design on the specific evaluation of the scent ($F(1, 96) = .694, p = .407$, partial $\eta^2 = .01$).

No significant interaction effects were found between store design and scent ($F(1, 96) = 2.16, p = .145$, partial $\eta^2 = .02$), store design and gender ($F(1, 96) = .002, p = .961$, partial $\eta^2 = .00$), scent and gender ($F(1, 96) = .25, p = .339$, partial $\eta^2 = .00$), and store design, scent and gender ($F(1, 96) = .92, p = .339$, partial $\eta^2 = .01$).

5.7 Time perception

No significant main effect was found of scent on consumers' time perception ($F(2, 144) = .40, p = .674$, partial $\eta^2 = .01$). There was also no significant main effect of store design on consumers' time perception, but the results showed a marginal effect ($F(1, 144) = 2.66, p = .10$, partial $\eta^2 = .02$). The estimated time was higher in the dark store design ($M = 47.71, SD = 65.76$) than in the light store design ($M = 25.74, SD = 97.88$), $t(154) = 1.65, p < .01$.

In addition, Figure 17 shows a significant interaction effect between store design and scent on time perception ($F(2, 144) = 3.75, p = .026$, partial $\eta^2 = .05$). Figure 17 shows the difference between the actual time and the estimated time of the participants as a result of completing the questionnaire. These data should be interpreted as the higher the difference in time perception, the slower the time has gone in consumers' mind. In line with predictions, Figure 17 indicates that the use of scent, as opposed to no use of scent, gives the feeling that the time goes faster in the light store design. However, the results are opposite in the dark store design. Figure 17 shows that the estimated time is higher in the dark store design when a scent is present as opposed to no scent in the store. There are no significant differences between the dark and light scent in the dark store design. The differences in the dark store design are less strong than in the light store design.

Based on these results, it can be assumed that consumers have the feeling that the time slows down in the dark store design when a dark or light scent is present. In the light store design, the time slows down when no scent is present in the store. The use of scent in the dark store design leads to a higher estimate of time while scent in the light store design leads to lower estimate of time.

No significant interaction effects were found between store design and gender ($F(1, 144) = 2.68, p = .104$, partial $\eta^2 = .02$), scent and gender ($F(2, 144) = 1.99, p = .140$, partial $\eta^2 = .03$), and store design, scent and gender ($F(2, 144) = .62, p = .538$, partial $\eta^2 = .01$).

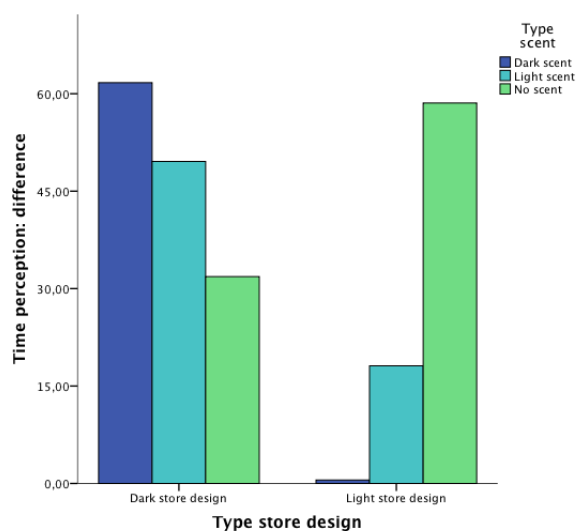


Figure 17: Interaction effects of Store Design and Scent on the difference in Time Perception

5.8 Mediating effects of processing fluency

The impact of store design, scent and gender on processing fluency was measured with a two-way ANOVA. The results showed a significant main effect of store design on processing fluency ($F(1, 144) = 16.41, p < .001$, partial $\eta^2 = .10$). The light store design ($M = 5.71, SD = 1.23$) scored significantly higher on processing fluency than the dark store design ($M = 4.91, SD = 1.22$), $t(154) = -4.07, p < .05$. No significant main effect was found of scent on processing fluency ($F(2, 144) = .14, p = .872$, partial $\eta^2 = .00$).

In addition, no significant interaction effects were found between store design and scent ($F(2, 144) = 1.06, p = .351$, partial $\eta^2 = .01$), store design and gender ($F(2, 144) = 1.88, p = .173$, partial $\eta^2 = .01$), scent and gender ($F(2, 144) = .85, p = .431$, partial $\eta^2 = .01$), and store design, scent and gender ($F(2, 144) = .62, p = .539$, partial $\eta^2 = .01$).

Because no significant interaction effects were found on processing fluency, it can be assumed that the influence of store design and scent congruence on consumer responses was not mediated by processing fluency. The potential mediating role of processing fluency for the main effects could possibly be tested according to the research procedure of Baron and Kenny (1986), which developed four criteria that must be fulfilled for a mediating effect. The four criteria are:

1. There must be a correlation between the independent variable and the dependent variable(s)
2. There must be a correlation between the independent variable and the mediator
3. The mediator must influence the dependent variable(s)
4. The significant effect of the independent variable on the dependent variable(s) weakened in the presence of a mediator

Table 5 shows the results of the mediation analysis and indicates that the independent variable store design had a significant effect on the dependent variables general store evaluation ($\beta = .67, p < .001$), specific store evaluation lighting ($\beta = 3.60, p < .001$), merchandise ($\beta = .64, p < .001$), pleasure ($\beta = .18, p < .001$), arousal ($\beta = .99, p < .001$), dominance ($\beta = 1.06, p < .001$), and intention to visit the store ($\beta = .82, p < .003$). Moreover, store design significantly influenced the expected mediator processing fluency ($\beta = .80, p < .001$). Processing fluency also affect the general store evaluation ($\beta = .24, p < .001$), specific store evaluation lighting ($\beta = .50, p < .001$), merchandise ($\beta = .24, p < .02$), pleasure ($\beta = .21, p < .02$), arousal ($\beta = .24, p < .001$), dominance ($\beta = .46, p < .02$), intention to visit the store ($\beta = .29, p < .01$) and specific scent evaluation ($\beta = .24, p < .02$). However, only the significant

effect of the independent variables on general store evaluation ($\beta = .53, p = .006$), merchandise ($\beta = .01, p = .974$) and dominance ($\beta = .76, p = .001$) weakened in the presence of processing fluency. Because general store evaluation, merchandise and dominance meet the criterion of Baron and Kenny (1986), it can be assumed that the influence of store design on these three dependent variables is mediated by processing fluency.

The results in Table 5 also indicate that the independent variable scent had a significant effect on arousal ($\beta = .32, p < .001$), general scent evaluation ($\beta = 1.12, p < .001$) and specific scent evaluation ($\beta = 1.16, p < .001$). However, scent did not affect the expected mediator processing fluency. Because of this, it can be assumed that the consumer responses were not mediated by processing fluency.

Table 5
Mediation Analysis Processing Fluency

	Independent variables				Expected mediator	
	Store design		Scent		Processing fluency	
	β	p	β	p	β	p
General store evaluation	.67	.000	-.05	<i>ns</i>	.24	.001
Specific store evaluation: lighting	3.60	.000	.10	<i>ns</i>	.50	.000
Specific store evaluation: arousal	-1.03	<i>ns</i>	-.05	<i>ns</i>	.07	<i>ns</i>
Merchandise	.64	.000	.05	<i>ns</i>	.24	.016
Value for money	-.28	<i>ns</i>	-.10	<i>ns</i>	.01	<i>ns</i>
Pleasure	.18	.000	.06	<i>ns</i>	.21	.015
Arousal	.99	.000	.32	.000	.24	.001
Dominance	1.06	.000	.08	<i>ns</i>	.46	.000
Intention to visit the store	.82	.003	.04	<i>ns</i>	.29	.007
General scent evaluation	.32	<i>ns</i>	1.12	.000	.22	<i>ns</i>
Specific scent evaluation	.19	<i>ns</i>	1.16	.000	.24	.016
Time perception	-21.96	<i>ns</i>	7.05	<i>ns</i>	-7.67	<i>ns</i>

6. CONCLUSIONS AND DISCUSSION

The research question of this study was: *What is the effect of congruence between store design and scent in fashion stores in terms of product and store evaluation?* The findings indicated that the use of scent positively influences consumers' evaluation of the store, value for money, time perception and the feeling of arousal. Results showed that the congruence between store design and scent has positive impact on consumers' general evaluation of the store. The congruence between store design and scent in the light condition has influence on consumers' specific evaluation of the store, general scent evaluation, time perception and feelings of pleasure and arousal. Differences were found between males and females on the general and specific evaluation of the store, intention to visit the store and feelings of pleasure and arousal. Processing fluency played no role in the congruence of the variables, only in the main effects of store design on the general store evaluation, merchandise perception and the feeling of dominance.

6.1 Discussion to the results

The previously described results did not completely confirm hypothesis 1 which stated that the presence as opposed to the absence of scent positively influences consumers' responses towards fashion stores. According to the results, the time estimation is higher in the light store design when no scent is present while the time estimation is higher in the dark store design with the presence of scent. A possible explanation for a high estimate of time in the light store design with no scent is that participants have used one sense (vision) instead of multiple senses in the scent condition (vision and olfaction). Focus on one sense provides more alertness, resulting in a higher time estimation and the feeling that the time slows down. This finding is in line with the study of Spangenberg, Crowley and Henderson (1996), which showed that the presence of an odor, compared to the absence of an odor, reduced the estimated time.

However, the results showed a high estimate of time when a scent is used in the dark store design. This can possibly be explained by the Contextual Change Model, which assumes that a longer perceived time duration is the result of a large number of contextual changes (Block & Zakay, 1996). A dark store design is rarely chosen and there is a large contrast with the environment outside the store. The addition of a specific scent ensures that consumers have to adapt to the environment. In addition, the dark store design consists of dark colors and lighting, which can evoke negative feelings among consumers. Research shows that the time slows down in the mind of consumers when they experience negative

emotions and the time goes faster when consumers experience positive emotions (Borges, Herter & Chebat, 2015).

In addition, participants showed more arousal when no scent was used in the store as opposed to the use of scent. The high level of arousal in the no scent condition is surprising and could be explained by the fact that consumers are specifically focused on the environment with the use of one sense (vision). This makes them more aware of the situation as opposed to multiple senses while focusing on certain parts is less easy.

The results also show that participants evaluate the store more positively when the store make use of scent and participants appreciate the price for the clothing higher when a scent is present in the store compared to the absence of scent. The findings are in agreement with the studies of Bitner (1992), Zeithaml and Bitner (2000) and Bradford and Desrochers (2009) indicating that scent is a powerful tool to influence consumers' emotional state, product and store evaluations. Evaluations of products and environments are more positive when they are scented (Krishna, 2010). The high valuation of the clothes in the store with scent can be explained because consumers associate scents with luxury (Briot, 2011). Luxury is associated with an expensive image. As a result, consumers expect that a fashion store will sell expensive products when the store uses scent.

Hypothesis 2 stated that the congruence as opposed to incongruence between store design and scent positively influences consumers' responses towards the store. The findings showed a significant congruence between store design and scent on consumers' general store evaluation. The positive influence of congruent conditions on consumers' store evaluation can be explained by the study of Spence, Puccinelli, Grewal and Roggeveen (2014), which showed that congruent multisensory store environments are rated as more pleasant and inviting than store environments that make less use of consumers' senses. Bone and Jantrania (1992) showed that congruent scents are more able to improve evaluations than incongruent scents. This can be the reason why the light (dark) scent is preferred in the light (dark) store design for creating positive evaluations.

In addition, the findings show a significant congruence in the light condition between store design and scent on consumers' specific evaluation of the store, general scent evaluation, time perception and feelings of pleasure and arousal. Participants display more feelings of pleasure and arousal, a lower time estimation, and the scent was evaluated more fresh and fruity when the light scent was used in the light store design as opposed to the dark store design. The degree of arousal is surprisingly, because less arousal was

expected in the light environment compared to the dark environment. A possible explanation for a high degree of arousal in the light store design is that participants evaluate the light store design as more pleasant than the dark store design and they experience more pleasant feelings in this store design. Research showed that people with an optimal number of stimuli experience more pleasure than few stimuli (Van Hagen, 2011). This may be the reason why more arousal has been displayed in the light store design.

No significant congruence is found in the dark condition. The results show that the dark design has negative impact on consumers' store evaluation and emotions. This is surprising, because the trend in fashion stores at the moment is based on dark designs to display an attractive and luxurious look. It is possible that dark designs are less suitable for fashion stores, because research shows that dark environments are associated with negative emotions while light environments are associated with positive emotions (Borges, Herter & Chebat, 2015). Dark environments are also associated with impressions of a smaller and more crowded environment (Yildirim, Akalin-Baskava & Hidayetoglu, 2007). Consumers shop mostly for fun and getting pleasant feelings and emotions. This may be the reason that a light store design will attract more consumers than a dark store design.

A notable effect is visible in store design and scent on value for money. The results show that participants believe that the store was expensive when a scent was present in the dark store design as opposed to no scent. This can be explained by the fact that odors are associated with luxury and luxury with an expensive image (Briot, 2011). Consumers will therefore expect that a store with a luxurious interior will sell expensive products. There was no significant difference between the scents, but the light scent scored a little higher on value for money than the dark scent. This means that a light scent in a fashion store with a dark design has a positive influence on the value for money. A possible explanation for this is that the light scent is perceived as more pleasant and attractive than the dark scent and therefore the darkness in the store is alleviated. Because the congruence is not significant on all variables and in all conditions, hypothesis 2 is partly confirmed.

Hypothesis 3 tested whether processing fluency mediates the effect of store design – scent congruence on consumer responses towards fashion stores. The mediation analysis showed no mediation of processing fluency on the congruence between store design and scent. The findings showed only a significant main effect of store design on consumers' general store evaluation, merchandise perception and the feeling of dominance. The light store design was evaluated more positively than the dark store design and participants have more

feelings of dominance in the light store design. Participants also assess the merchandise in the light store design as more modern, innovative and stylish than in the dark store design.

These findings can possibly be explained by the fact that the light store design was easier to process than the dark store design. The concept of perceptual clarity can play a role, which means that the use of bright and peripheral lighting in environments leads to better impressions (Custers, De Kort, Ijsselstein & De Kruiff, 2010). The light store design will therefore be evaluated more positively than the dark store design. Moreover, research showed that bright colors, lots of lighting and space are often associated with new, fresh and modern environments (Yildirim, Hidayetoglu & Capanoglu, 2011). This may explain the results of merchandise in the light store design. Finally, the high sense of dominance in the light store design can, besides the mediation of processing fluency, also be explained by the use of many bright colors, a lot of lighting and space in the store. The open environment provides an organized whole in which participants create a feeling of control. Because no interaction effects of the congruence between store design and scent were found, hypothesis 3 is rejected.

Hypothesis 4 stated that gender moderates the effect of store design – scent congruence on consumers' evaluation of the store environment, intention to visit the store, emotional state (pleasure, arousal, dominance), merchandise perception, evaluation of the scent, value for money and time perception. The results showed a significant interaction effect between store design and gender on the general and specific evaluation of the store, the intention to visit the store and the feelings of pleasure and arousal. Females evaluated the light store design more positively than the dark store design, while there were no differences between the evaluations of the store designs by males. The type of store can explain this because fashion stores were central in the study. The manipulation of the stores focused mainly on females, which made it more complicated for males to evaluate the store designs.

The fact that females evaluate the light store design more positively than the dark store design can be explained by the study of Yalch and Spangenberg (2000) which showed that females often associate dark colors and environments with mystery and negative emotions, and light colors and environments with positive emotions. Because shopping is a social and pleasurable activity by females, they will prefer light store environments.

In addition, the findings show that females feel more pleasure and arousal in the light store design condition than in the dark store design condition, while there were no differences noticeable between the store designs by males. The intention to visit the store

was also higher by females than by males. These findings can be explained by the fact that females find it more enjoyable to shop in fashion stores than males (Rook & Hoch, 1985). Therefore, females judge the store more positively and they create more positive feelings. Meyers-Levy and Maheswaran (1991) found that females are more detail oriented and sensitive to environmental features than males. This makes that females are more critical about the environment and create an informed store image.

It is also possible that males are more utilitarian oriented shoppers who see shopping as a goal oriented activity while females are more hedonically oriented shoppers where shopping can be seen as a social activity (Babin, Darden & Griffin, 1994). Because utilitarian shoppers see shopping as a purposeful activity, they will experience less pleasure while hedonic shoppers who see shopping as a social activity will experience more pleasure and have a higher intention to visit stores.

There was also a significant interaction effect between scent and gender on pleasure. Males judged the light scent as more pleasant than the dark scent, while females judged the dark scent as more pleasant than the light scent. This can possibly be explained by the difference of sex. Males are attracted and aroused by female fragrances while females are attracted and aroused by male fragrances. This may explain why males assess the light scent more positively and females the dark scent. Another explanation is that males are utilitarian oriented shoppers who experience little pleasure from shopping. A light scent, opposed to a dark scent, will not be dominant in the store, something that males find pleasurable. The opposite holds for females who like a dark scent in the store, possibly because they are hedonic oriented shoppers who associate a dark scent with quality. Based on these results, hypothesis 4 is partly confirmed.

6.2 Limitations and suggestions for future research

This study has several limitations. One of the limitations is that the methodology of this research consisted of a scenario study. Although research indicated that simulated store environments with pictures of stores could create useful results (Bellizi, Crowley & Hasty, 1983; Bitner, 1990), this study can be replicated in further research by means of a field study in a real store. It is expected that the congruence between scent and store design will be more important. However, the brand image must be taken into account in order to prevent preconceptions of the brand name.

Furthermore, this study measured the influence of store design and scent in fashion stores and the distinction between gender. The results will most likely be related to the type

of store, because the focus of this study was on fashion stores. Females generally buy more clothes than males and are more often found in fashion stores because they find shopping in fashion stores fun while males see this kind of shopping as a necessity. It is possible that the distinction between males and females has different influence on the same variables in other types of stores. The same type of study can be carried out in stores, such as furniture stores, electronics stores and department stores.

Because the results are different between gender, it is also possible to make a distinction between utilitarian and hedonic shoppers instead of males and females, because there are always males and females who like or do not like shopping and who attach importance to the interior of stores.

Another limitation is that the manipulation of the fashion stores was primarily aimed at females. As a result, it was a complex task for males in order to assess the stores. This makes that there were few differences between the evaluations of the store designs and scents for males. For further research, the fashion stores will have to focus more on males, allowing them to better assess the fashion stores. In this manner, the results can be better compared with females.

In addition, two types of store designs were examined; a dark store design and a light store design. Also two types of scents were used in this study including a control condition without scent (neutral scent). Future research should consider more varieties of store designs with different color/lighting conditions and scents to provide more insights in consumer responses towards fashion stores. It is also possible to include other dimensions of color/lighting (e.g. saturation) and scent (e.g. intensity) in next research.

Finally, other atmospheric variables can be examined. The focus of this study was on the congruence between lighting/color and scent, but future research can focus on other atmospheric variables, for example shape, material or weight of the design and the congruency between two of more variables.

6.3 Practical implications

Based on the results, some suggestions about the store design and the use of scent in fashion stores can be given. Although there is an emerging trend in the number of fashion stores which are going to use a dark design in the store, evidenced by the results of this study that stores with a dark design negatively affect consumers' evaluation of the store and the feelings of pleasure, arousal and dominance. A light store design is evaluated more

positive in all aspects. It is advisable not to go along with the trend, but to use a light store design to attract consumers and provide a pleasant environment.

The study also shows that scent can be strategically deployed in fashion stores to positively influence consumer responses towards the store. It is important that the scent is congruent with the store design. Research shows that participants feel more pleasant in the fashion store when the scent is congruent with the environment. A light scent in a light store design (congruence) will give consumers a more pleasant feeling than a light scent in a dark store design (incongruence). The store will also be evaluated more positively when the light (dark) scent is used in the light (dark) store design (congruence). Also other scents can be used to influence consumers' choices. For example, a fashion store focused on sportswear will have to use a sporty scent; when the store sells sportswear directed to water-based activities an aqua scent can be spread in the store. When a scent matches the store design, scent can have a positive influence on the positioning of the store.

However, differences between the experiences of males and females must be taken into account for a positive store evaluation. Because most fashion stores consist of separate stores for males and females or one store with separate floors, a pleasurable experience by females can be created through a store design consisting of bright colors and good lighting, which creates an open environment. A light scent in a light store design will make that females evaluate the store more positive, have feelings of pleasure and a higher intention to visit the store. In contrast, for a pleasurable experience by males the store design can have both a light store design and a dark store design. Males do not distinguish their evaluation and intention to visit the store based on the store design. Males have a preference for a light scent in the store. For this reason it would be advisable to use a light fragrance.

It is also important to consider how often males and females buy clothes in fashion stores. Based on research, it can be concluded that most consumers in fashion stores are females. Therefore, when a store is both for males and females, it is advised to mainly focus on the preferences of the interior of females.

This research adds value to the existing knowledge in the field of atmospheric features in fashion stores. The results provide valuable insights to marketers and retailers on how to use scent in fashion stores adapted to the store design. This is relevant for the positioning of the store, because the interview study showed that scent is still unused in most of the fashion stores. It can be assumed that a scent that fits the environment of a fashion store may still result in favorable changes in the atmosphere of the store and has a positive impact on consumer behavior.

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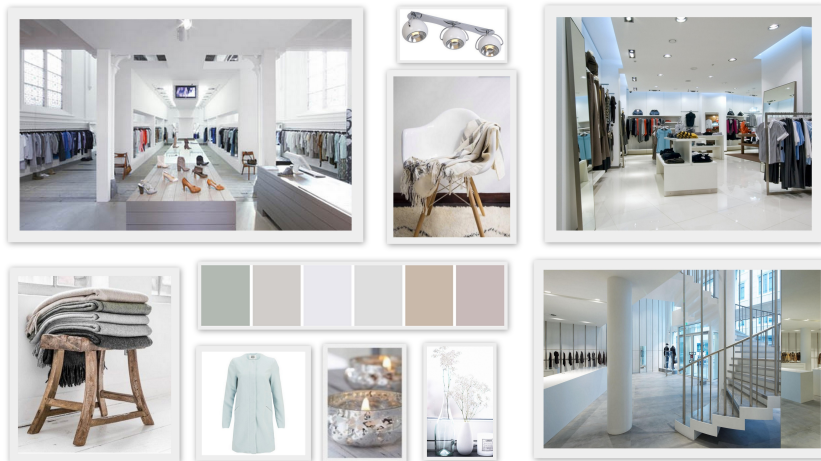
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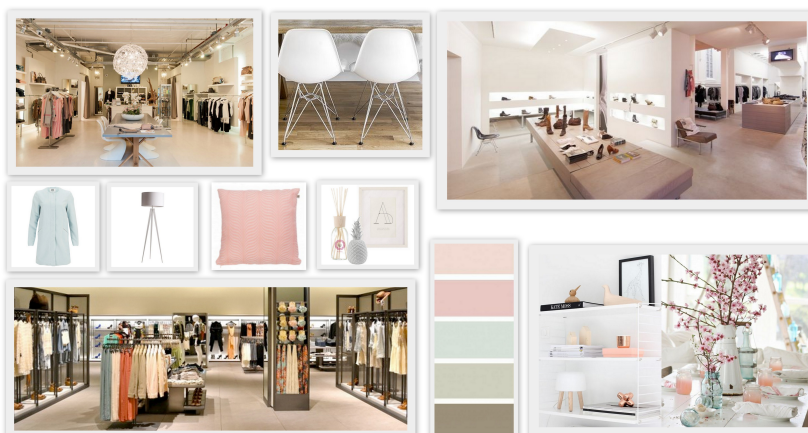
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APPENDICES

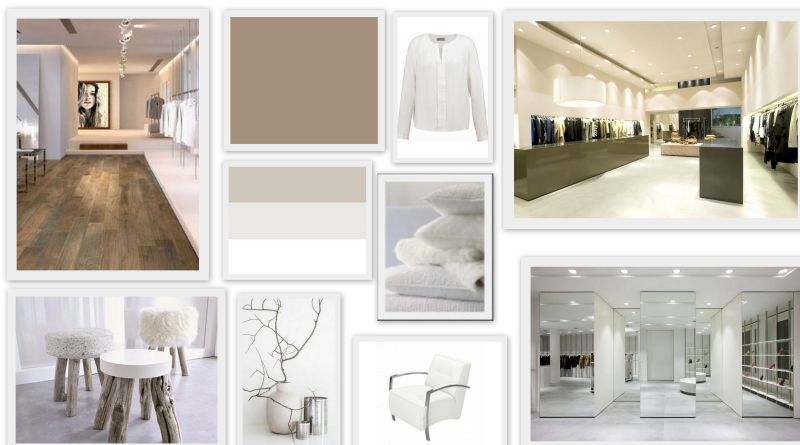
Appendix A: Materials store design pre-test



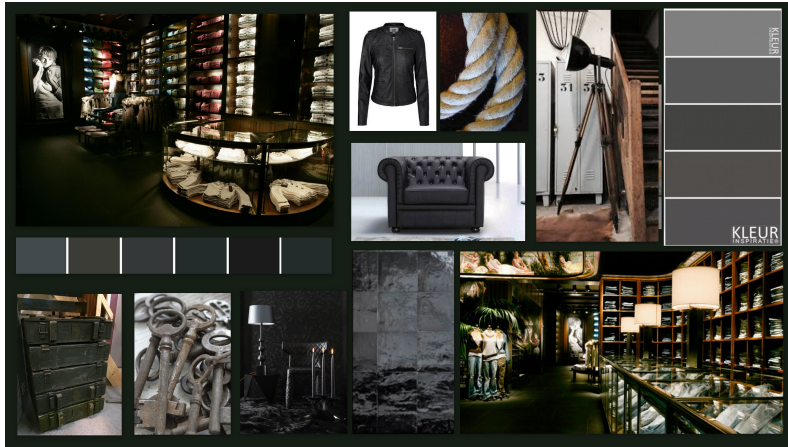
Store design light 1



Store design light 2



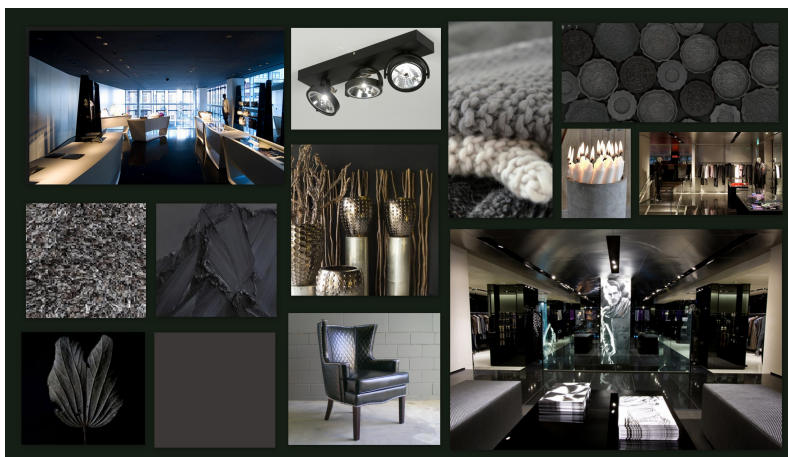
Store design light 3



Store design dark 1



Store design dark 2



Store design dark 3

Appendix B: Questionnaire store design pre-test

UNIVERSITEIT TWENTE.

Beste deelnemer,

In het kader van de masteropleiding Marketing Communicatie aan de Universiteit Twente doe ik onderzoek naar de beleving van consumenten in winkelomgevingen. U zou me een plezier doen als u enige tijd neemt om mij te helpen met dit onderzoek.

Het onderzoek werkt als volgt: ik zal u 6 verschillende moodboards laten zien die inrichtingen van kledingwinkels representeren. Het is de bedoeling dat u zich inleeft in de situatie; dat u zich voorstelt dat u zich in de winkel omgeeft die het moodboard laat zien. Voor elk moodboard zijn er vervolgens 12 vragen die beantwoord moeten worden op een 5-punt schaal. Denk niet te lang na bij het invullen van de antwoorden, het gaat om de eerste indruk. Het invullen van de vragenlijst zal ongeveer 5-10 minuten duren en de gegevens zullen anoniem worden verwerkt.

Alvast hartelijk dank voor uw medewerking!

Lisan Joustra

Vragenlijst onderdeel 1

1. Wat is uw geslacht? ☐ Man ☐ Vrouw

2. Wat is uw leeftijd? jaar

Vragenlijst onderdeel 2

Stelt u zich voor dat u zich in de winkelomgeving bevindt die **moodboard 1** representeert. In hoeverre beoordeelt u de winkelomgeving als:

1. Licht	☐	☐	☐	☐	☐	Donker
2. Duister	☐	☐	☐	☐	☐	Helder
3. Transparant	☐	☐	☐	☐	☐	Mysterieus
4. Warm	☐	☐	☐	☐	☐	Koud
5. Open	☐	☐	☐	☐	☐	Gesloten
6. Rustgevend	☐	☐	☐	☐	☐	Prikkelend
7. Stoer	☐	☐	☐	☐	☐	Knus

8. Tuttig	☐	☐	☐	☐	☐	Cool
9. Alledaags	☐	☐	☐	☐	☐	Bijzonder
10. Afstandelijk	☐	☐	☐	☐	☐	Toegankelijk
11. Onaangenaam	☐	☐	☐	☐	☐	Aangenaam
12. Plezierig	☐	☐	☐	☐	☐	Onplezierig

Stelt u zich voor dat u zich in de winkelomgeving bevindt die **moodboard 2** representeert. In hoeverre beoordeelt u de winkelomgeving als:

1. Licht	☐	☐	☐	☐	☐	Donker
2. Duister	☐	☐	☐	☐	☐	Helder
3. Transparant	☐	☐	☐	☐	☐	Mysterieus
4. Warm	☐	☐	☐	☐	☐	Koud
5. Open	☐	☐	☐	☐	☐	Gesloten
6. Rustgevend	☐	☐	☐	☐	☐	Prikkelend
7. Stoer	☐	☐	☐	☐	☐	Knus
8. Tuttig	☐	☐	☐	☐	☐	Cool
9. Alledaags	☐	☐	☐	☐	☐	Bijzonder
10. Afstandelijk	☐	☐	☐	☐	☐	Toegankelijk
11. Onaangenaam	☐	☐	☐	☐	☐	Aangenaam
12. Plezierig	☐	☐	☐	☐	☐	Onplezierig

Stelt u zich voor dat u zich in de winkelomgeving bevindt die **moodboard 3** representeert. In hoeverre beoordeelt u de winkelomgeving als:

1. Licht	☐	☐	☐	☐	☐	Donker
2. Duister	☐	☐	☐	☐	☐	Helder
3. Transparant	☐	☐	☐	☐	☐	Mysterieus
4. Warm	☐	☐	☐	☐	☐	Koud
5. Open	☐	☐	☐	☐	☐	Gesloten
6. Rustgevend	☐	☐	☐	☐	☐	Prikkelend
7. Stoer	☐	☐	☐	☐	☐	Knus
8. Tuttig	☐	☐	☐	☐	☐	Cool
9. Alledaags	☐	☐	☐	☐	☐	Bijzonder
10. Afstandelijk	☐	☐	☐	☐	☐	Toegankelijk
11. Onaangenaam	☐	☐	☐	☐	☐	Aangenaam
12. Plezierig	☐	☐	☐	☐	☐	Onplezierig

Stelt u zich voor dat u zich in de winkelomgeving bevindt die **moodboard 4** representeert. In hoeverre beoordeelt u de winkelomgeving als:

1. Licht	☐	☐	☐	☐	☐	Donker
2. Duister	☐	☐	☐	☐	☐	Helder
3. Transparant	☐	☐	☐	☐	☐	Mysterieus
4. Warm	☐	☐	☐	☐	☐	Koud
5. Open	☐	☐	☐	☐	☐	Gesloten

6. Rustgevend	☐	☐	☐	☐	☐	Prikkelend
7. Stoer	☐	☐	☐	☐	☐	Knus
8. Tuttig	☐	☐	☐	☐	☐	Cool
9. Alledaags	☐	☐	☐	☐	☐	Bijzonder
10. Afstandelijk	☐	☐	☐	☐	☐	Toegankelijk
11. Onaangenaam	☐	☐	☐	☐	☐	Aangenaam
12. Plezierig	☐	☐	☐	☐	☐	Onplezierig

Stelt u zich voor dat u zich in de winkelomgeving bevindt die **moodboard 5** representeert. In hoeverre beoordeelt u de winkelomgeving als:

1. Licht	☐	☐	☐	☐	☐	Donker
2. Duister	☐	☐	☐	☐	☐	Helder
3. Transparant	☐	☐	☐	☐	☐	Mysterieus
4. Warm	☐	☐	☐	☐	☐	Koud
5. Open	☐	☐	☐	☐	☐	Gesloten
6. Rustgevend	☐	☐	☐	☐	☐	Prikkelend
7. Stoer	☐	☐	☐	☐	☐	Knus
8. Tuttig	☐	☐	☐	☐	☐	Cool
9. Alledaags	☐	☐	☐	☐	☐	Bijzonder
10. Afstandelijk	☐	☐	☐	☐	☐	Toegankelijk
11. Onaangenaam	☐	☐	☐	☐	☐	Aangenaam
12. Plezierig	☐	☐	☐	☐	☐	Onplezierig

Stelt u zich voor dat u zich in de winkelomgeving bevindt die **moodboard 6** representeert. In hoeverre beoordeelt u de winkelomgeving als:

1. Licht	☐	☐	☐	☐	☐	Donker
2. Duister	☐	☐	☐	☐	☐	Helder
3. Transparant	☐	☐	☐	☐	☐	Mysterieus
4. Warm	☐	☐	☐	☐	☐	Koud
5. Open	☐	☐	☐	☐	☐	Gesloten
6. Rustgevend	☐	☐	☐	☐	☐	Prikkelend
7. Stoer	☐	☐	☐	☐	☐	Knus
8. Tuttig	☐	☐	☐	☐	☐	Cool
9. Alledaags	☐	☐	☐	☐	☐	Bijzonder
10. Afstandelijk	☐	☐	☐	☐	☐	Toegankelijk
11. Onaangenaam	☐	☐	☐	☐	☐	Aangenaam
12. Plezierig	☐	☐	☐	☐	☐	Onplezierig

Dit is het einde van de vragenlijst. Hartelijk dank voor uw medewerking!

Appendix C: Interview scent pre-test

A short interview with 30 fashion stores in Enschede and two fashion stores via the Internet:

Store 1: Glamourstyle – Glamourstyle does not use smell in the store. The reason for this is that the store has not previously been thought of in order to make use of scent. The relevance of smell is unknown to them.

Store 2: Vero Moda – Vero Moda does not use smell in the store. No reason was mentioned why they do not make use of odors.

Store 3: Only – Only and Vero Moda have the same owner, which means that Only also does not make use of scent in the store. The reason why they use no odor is unclear.

Store 4: H&M – The fashion store H&M does not use scents in the store. The smell of the clothing has a strong presence and that fragrance need not change their opinion.

Store 5: C&A – C&A does not spray fragrances into the store to attract consumers. The reason for this is unknown.

Store 6: WE fashion (men and women) – WE fashion has two stores in Enschede. Both stores do not make use of scent to attract consumers. The reason is that they have never thought about the relevance and importance of smell in the store. The staff was very interested in this subject and they are going to think about whether they would use scent in the future.

Store 7: S. Oliver – S. Oliver does not use smell in the clothing store. The reason is that consumers who visit the store often have their own perfume on their body. This allows the store will soon smell like the perfumes of the consumers.

Store 8: Esprit – The clothing store Esprit used no smell in the store. This is because they do not want that the clothes in the store will smell to a particular scent.

Store 9: Jack & Jones – Jack & Jones have the same owner as Vero Moda and Only causing that this clothing store does not use scent. The reason for this is unknown.

Store 10: Open32 – Open32 offers a wide variety of clothes, but does not use smell in the store. The reason is that consumers often use perfumes on the body through which the store will smell a certain scent.

Store 11: Blue32 – Blue 32 is a colleague of Open32. No use is made of fragrance in the shop in order to attract consumers. The smells that bring consumers on their body are enough.

Store 12: VILA – VILA sells perfume, but does not spraying any fragrance in the store. The staff could not give a reason why no odor is distributed.

Store 13: Hunkemöller – Upon entering the Hunkemöller, a strong odor comes towards you. The Hunkemöller has developed its own sweet fragrance that is distributed in the store. In addition, the scent is also sold in the store. The Hunkemöller staff indicated that smell is an important element to attract consumers, creating a good atmosphere and experience in the store. Using its own sweet perfume will let consumers remember the store.

Store 14: The Sting – The odor that you smell in the clothing store The Sting comes from the clothes. No other smell is used to attract consumers. The store also has no interest in this.

Store 15: Costes – The fashion store Costes disseminated no smell in the store. The staff indicated that the Costes store is not suitable for smell. In their opinion, smells should only be spread in exclusive and chic stores.

Store 16: Primark – The same applies for Primark as for H&M. There is no use of scent in the fashion store. The strong scent distributed in the store is of the clothing. Due to the fact that Primark is so inexpensive, consumers will continue to visit the store and a lot of purchases will be made.

Store 17: Mango – The trendy fashion store Mango sells scents, but does not spray any fragrance in the store. The smell of the clothing distribution is strongly present in the store. The reason why a pleasant smell is not disseminated in the store is unknown.

Store 18: Zara – The Spanish fashion chain Zara does not use smell in the store. This store sells different perfumes but does not spread them out. The strong smell of the clothes is clearly present, but the reason why no pleasant odor is disseminated is unknown.

Store 19: CoolCat – The staff of CoolCat believes that the scent of the clothes has a good smell to spread. Another smell seems unnecessary, since the environment and the consumers who are shopping contain different scents. The relevance of a different fragrance is not necessary in their opinion.

Store 20: Sissy Boy – The fashion store Sissy Boy uses different scents that are distributed in the store. They do this by means of fragrance oil and oil sticks that occupy a central place in the store. The smells they distribute are: wood, jasmine, myrrh, amber, fig and tea. The choice for these kinds of aromas is because these aromas are less strong than perfumes, causing that consumers will experience the smell probably more enjoyable. The Sissy Boy staff indicated that they hope that consumers positively experience the shop through the smell and will remember the store.

Store 21: America Today – America Today does not make use of smell in the store. This is because they have little knowledge about the use of smell in stores and the consequences.

Store 22: New Yorker – Fashion store New Yorker sells relatively cheap clothes just like Primark. The smell of clothes comes towards you when you walk into the store. Because many consumers shop in the store daily, they make not use of smell to enhance consumers' perceptions.

Store 23: Miss Etam – Miss Etam used no smell in the store. By the staff, it was indicated that the environment poses different scents in the store; leaving a smell would be superfluous. The staff of Miss Etam did not see the added value of smell to attract consumers.

Store 24: Perry Sport – Perry Sport does not make use of scent in the store. This is because Perry Sport has not previously been thought of in order to make use of scent. The relevance and consequences of smell are unknown to them.

Store 25: Aktiesport – Aktiesport uses an aqua fresh spray in the store. The reason for this is that the store will smell less to the clothes and shoes that are sold. In addition, they like the smell and aqua fits with the store. With this scent, Aktiesport hopes consumers find it more pleasant to stay in the store.

Store 26: Jeans Centre – Clothing store Jeans Centre uses no smell in the store to lure consumers. The staff told directly that they have never thought to spread fragrances in the store. The relevance and potential consequences are unknown.

Store 27: Tally Weijl – Tally Weijl does not make use of scent in the store. The reason for this is that the store has not previously been thought of in order to make use of scent. The relevance of smell is unknown.

Store 28: Le Ballon – Le Ballon does not use smell in the store. No reason was mentioned why they do not make use of smell.

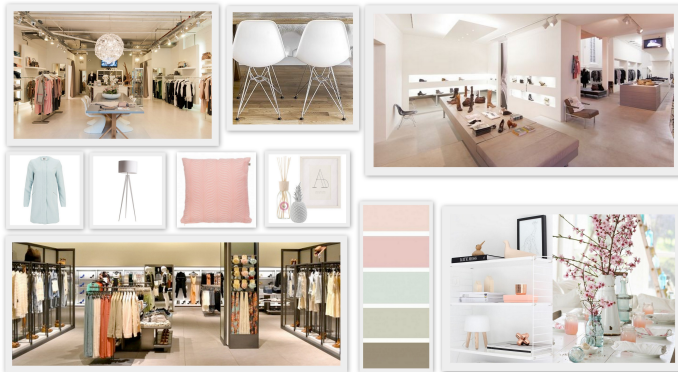
Store 29: Superstar – The clothing store Superstar does not make use of smell in the store. This is because they do not want the clothes in the store smell to a particular scent.

Store 30: Famous – Fashion store Famous does not make use of scent in the store. The reason for this is that the store has not previously been thought of in order to make use of scent. The relevance and importance of smell is unknown.

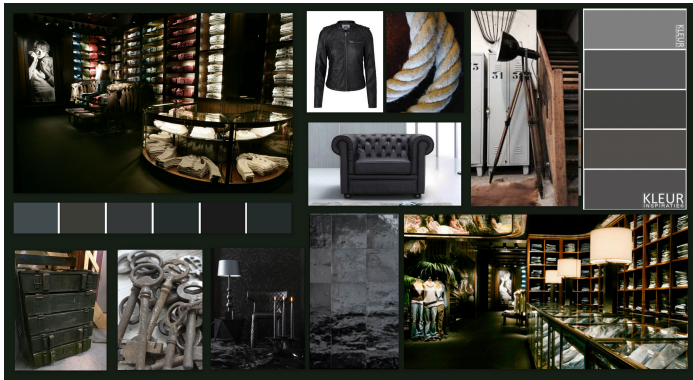
Store 31: Abercrombie & Fitch – Via the Internet, Abercrombie & Fitch was asked to what extent they use smell in the store. The staff indicated that Abercrombie & Fitch have developed their own fragrance 'Fierce' which is distributed in the store to lure consumers. This fragrance is also for sale in the store. The staff hopes that consumers recognize the shop with this smell when people smell the scent.

Store 32: Scotch & Soda – Scotch & Soda are also asked via the Internet about the use of smell in the store. The staff indicated that Scotch & Soda have developed their own perfume 'Barfly' which is spread in the store. This perfume can also be purchased in the store. With this fragrance, the staff hopes consumers stay longer in the shop and make more purchases.

Appendix D: Materials scent – store design pre-test



Store design light



Store design dark



Left to right scents: Jasmin, Fig, Hammam, Avocado, Lavender, Passionflower, Sandalwood



The fragrance sticks to diffuse the scents

Appendix E: Questionnaire scent – store design pre-test

UNIVERSITEIT TWENTE.

Beste deelnemer,

In het kader van de masteropleiding Marketing Communicatie aan de Universiteit Twente doe ik onderzoek naar de geurbeleving van consumenten in winkelomgevingen. U zou me een plezier doen als u enige tijd neemt om mij te helpen met dit onderzoek.

Het onderzoek werkt als volgt: ik zal u twee verschillende moodboards laten zien die inrichtingen van kledingwinkels representeren. Het is de bedoeling dat u zich inleeft in de winkelomgevingen. Vervolgens krijgt u willekeurig 7 geuren te ruiken. Nadat u een geur geroken heeft moet u op een 5-punt schaal aangeven in hoeverre u de geur bij de winkelinrichting vindt passen. Na elke geur zal u uw eigen lichaamsgeur moeten ruiken om uw neus te neutraliseren. Denk niet te lang na bij het invullen van de antwoorden, het gaat om de eerste indruk. Het invullen van de vragenlijst zal ongeveer 5-10 minuten duren en de gegevens zullen anoniem worden verwerkt.

Alvast hartelijk dank voor uw medewerking!

Lisan Joustra

Vragenlijst onderdeel 1

1. Wat is uw geslacht? ☐ Man ☐ Vrouw
2. Wat is uw leeftijd? jaar

Vragenlijst onderdeel 2

Stelt u zich voor dat u zich in de omgeving bevindt die **moodboard 1** representeert. In hoeverre vindt u de geuren bij de omgeving van moodboard 1 passen:

Geur 1: _____

Helemaal niet ☐ ☐ ☐ ☐ ☐ Helemaal wel

Geur 2: _____

Helemaal niet ☐ ☐ ☐ ☐ ☐ Helemaal wel

Geur 3: _____

Helemaal niet ☐ ☐ ☐ ☐ ☐ Helemaal wel

Geur 4: _____

Helemaal niet ☐ ☐ ☐ ☐ ☐ Helemaal wel

Geur 5: _____

Helemaal niet ☐ ☐ ☐ ☐ ☐ Helemaal wel

Geur 6: _____

Helemaal niet ☐ ☐ ☐ ☐ ☐ Helemaal wel

Geur 7: _____

Helemaal niet ☐ ☐ ☐ ☐ ☐ Helemaal wel

Stelt u zich voor dat u zich in de omgeving bevindt die **moodboard 2** representeert. In hoeverre vindt u de geuren bij de omgeving van moodboard 2 passen:

Geur 1: _____

Helemaal niet ☐ ☐ ☐ ☐ ☐ Helemaal wel

Geur 2: _____

Helemaal niet ☐ ☐ ☐ ☐ ☐ Helemaal wel

Geur 3: _____

Helemaal niet ☐ ☐ ☐ ☐ ☐ Helemaal wel

Geur 4: _____

Helemaal niet ☐ ☐ ☐ ☐ ☐ Helemaal wel

Geur 5: _____

Helemaal niet ☐ ☐ ☐ ☐ ☐ Helemaal wel

Geur 6: _____

Helemaal niet ☐ ☐ ☐ ☐ ☐ Helemaal wel

Geur 7: _____

Helemaal niet ☐ ☐ ☐ ☐ ☐ Helemaal wel

Dit is het einde van de vragenlijst. Hartelijk dank voor uw medewerking!

Appendix F: Six store design-scent conditions



Condition 1: Dark store design – Hammam scent (congruence)



Condition 2: Dark store design – Passionflower scent (incongruence)



Condition 3: Dark store design – No scent (control)



Condition 4: Light store design – Passionflower scent (congruence)



Condition 5: Light store design – Hammam scent (incongruence)



Condition 6: Light store design – No scent (control)

Appendix G: Questionnaire main study

UNIVERSITEIT TWENTE.

Beste deelnemer,

In het kader van de masteropleiding Marketing Communicatie aan de Universiteit Twente doe ik onderzoek naar de beleving van consumenten in kledingwinkels. U zou me een groot plezier doen als u enige tijd neemt om mij te helpen met dit onderzoek.

Het onderzoek werkt als volgt: allereerst krijgt u een situatie te lezen over een nieuwe kledingwinkel die gevestigd wordt in uw woonplaats. Vervolgens wordt een impressie van de kledingwinkel weergegeven. Het is de bedoeling dat u zich zo goed mogelijk inleeft in de situatie. Daarna zullen er een aantal vragen gesteld worden over de kledingwinkel. Een invulinstructie staat aangegeven.

Het invullen van de vragenlijst zal ongeveer 5-10 minuten duren. Deelname aan de vragenlijst is anoniem en de gegevens zullen vertrouwelijk behandeld en verwerkt worden. Belangrijk is dat er geen goede of foute antwoorden zijn.

Alvast hartelijk dank voor uw tijd en medewerking aan dit onderzoek.

Lisan Joustra
Student Communicatiewetenschap
Universiteit Twente

Stelt u zich de volgende situatie voor:

Het is zaterdagmiddag en u heeft lekker een dagje vrij. Een vriend belt op met de mededeling dat er een nieuwe kledingwinkel is geopend in de stad waar u woont. Hij vraagt of u zin heeft om mee naar de stad te gaan om te kijken wat voor kledingwinkel het is. U bent wel benieuwd en u besluit om mee te gaan. Tien minuten later zijn jullie aangekomen bij de nieuwe kledingwinkel en stappen jullie naar binnen.

Op het moodboard treft u een impressie van de kledingwinkel aan. Probeer u goed voor te stellen dat u in de kledingwinkel rondloopt. U kijkt om u heen en ziet dat de winkel een bepaalde sfeer uitstraalt. Ook ruikt u een bepaalde geur die verspreid is in de winkel.

Onderstaande begrippen beschrijven verschillende indrukken die u kan vormen ten aanzien van de kledingwinkel. Geef op onderstaande schaal aan wat u van de kledingwinkel vindt.

Ik beoordeel de kledingwinkel als:

1. Aantrekkelijk	☐	☐	☐	☐	☐	☐	☐	Onaantrekkelijk
2. Onaangenaam	☐	☐	☐	☐	☐	☐	☐	Aangenaam
3. Positief	☐	☐	☐	☐	☐	☐	☐	Negatief
4. Oninteressant	☐	☐	☐	☐	☐	☐	☐	Interessant
5. Licht	☐	☐	☐	☐	☐	☐	☐	Donker
6. Duister	☐	☐	☐	☐	☐	☐	☐	Helder
7. Transparant	☐	☐	☐	☐	☐	☐	☐	Mysterieus
8. Open	☐	☐	☐	☐	☐	☐	☐	Gesloten
9. Levendig	☐	☐	☐	☐	☐	☐	☐	Levenloos
10. Oppervlakkig	☐	☐	☐	☐	☐	☐	☐	Intens
11. Sfeervol	☐	☐	☐	☐	☐	☐	☐	Sfeerloos
12. Spannend	☐	☐	☐	☐	☐	☐	☐	Saai

Onderstaande begrippen gaan over de kleding die de winkel verkoopt. Geef op onderstaande schaal uw verwachtingen ten aanzien van de kleding aan.

Op basis van de winkelinrichting verwacht ik dat de kleding die verkocht wordt in de winkel beschikt over de volgende kenmerken:

13. Modern	☐	☐	☐	☐	☐	☐	☐	Ouderwets
14. Conservatief	☐	☐	☐	☐	☐	☐	☐	Vernieuwend
15. Elegant	☐	☐	☐	☐	☐	☐	☐	Onelegant
16. Stijlvol	☐	☐	☐	☐	☐	☐	☐	Stijlloos

Geef aan in hoeverre u het eens bent met onderstaande stelling:

	Helemaal mee oneens						Helemaal mee eens	
17. Ik verwacht dat ik in deze winkel veel geld moet betalen voor weinig kleding	☐	☐	☐	☐	☐	☐	☐	☐

De volgende vragen gaan over uw gevoel bij de kledingwinkel. De begrippen beschrijven allemaal gevoelens. Geef aan in hoeverre uw gevoel het beste de winkelomgeving omschrijft.

In deze kledingwinkel voel ik me:

18. Ontevreden	☐	☐	☐	☐	☐	☐	☐	Tevreden
19. Treurig	☐	☐	☐	☐	☐	☐	☐	Verheugd
20. Wanhopig	☐	☐	☐	☐	☐	☐	☐	Hoopvol
21. Onplezierig	☐	☐	☐	☐	☐	☐	☐	Plezierig
22. Opgewonden	☐	☐	☐	☐	☐	☐	☐	Kalm
23. Nerveus	☐	☐	☐	☐	☐	☐	☐	Relaxed
24. Geprikkeld	☐	☐	☐	☐	☐	☐	☐	Rustig

Geef aan in hoeverre u het eens bent met onderstaande stellingen:

	Helemaal mee oneens						Helemaal mee eens
25. In deze winkel heb ik het gevoel dat ik snel kan vinden wat ik zoek	☐	☐	☐	☐	☐	☐	☐
26. In deze winkel heb ik het gevoel dat ik alles onder controle heb	☐	☐	☐	☐	☐	☐	☐
27. In deze winkel sta ik in het middelpunt van de aandacht	☐	☐	☐	☐	☐	☐	☐

Stelt u zich voor dat u nieuwe kleren wilt kopen. Geef aan in hoeverre u het eens bent met onderstaande stellingen:

	Helemaal mee oneens						Helemaal mee eens
28. Ik overweeg om deze kledingwinkel te bezoeken	☐	☐	☐	☐	☐	☐	☐
29. Ik zou zeker deze kledingwinkel bezoeken	☐	☐	☐	☐	☐	☐	☐

Onderstaande begrippen beschrijven verschillende indrukken die u kan vormen ten aanzien van de geur. Geef op onderstaande schaal aan wat u van de geur vindt.

Ik beoordeel de geur als:

30. Aantrekkelijk	☐	☐	☐	☐	☐	☐	☐		Onaantrekkelijk
31. Onaangenaam	☐	☐	☐	☐	☐	☐	☐		Aangenaam
32. Onplezierig	☐	☐	☐	☐	☐	☐	☐		Plezierig
33. Positief	☐	☐	☐	☐	☐	☐	☐		Negatief
34. Zwaar	☐	☐	☐	☐	☐	☐	☐		Licht
35. Koel	☐	☐	☐	☐	☐	☐	☐		Warm
36. Sensueel	☐	☐	☐	☐	☐	☐	☐		Niet sensueel
37. Fris	☐	☐	☐	☐	☐	☐	☐		Zwoel
38. Fruitig	☐	☐	☐	☐	☐	☐	☐		Niet fruitig
39. Niet verleidelijk	☐	☐	☐	☐	☐	☐	☐		Verleidelijk

De volgende stellingen gaan over het algehele beeld dat u van de kledingwinkel krijgt.
Geef aan in hoeverre u het eens bent met onderstaande stellingen:

	Helemaal mee oneens					Helemaal mee eens	
40. Als ik naar deze winkel kijk dan krijg ik een duidelijk beeld van de winkel	☐	☐	☐	☐	☐	☐	☐
41. De winkel geeft een samenhangend geheel weer	☐	☐	☐	☐	☐	☐	☐
42. Als ik naar deze winkel kijk dan kan ik de indrukken makkelijk verwerken	☐	☐	☐	☐	☐	☐	☐

43. Hoe veel tijd denkt u gedaan te hebben over het invullen van deze vragenlijst?

..... minuten seconden

44. Wat is uw geslacht?

☐ Man

☐ Vrouw

45. Wat is uw leeftijd? jaar

46. Wat is uw hoogst genoten opleiding?

☐ Geen/lager- of basisonderwijs

☐ VMBO/MAVO/LBO

☐ HAVO/VWO

☐ MBO

☐ HBO

☐ WO

Dit is het einde van de vragenlijst. Hartelijk dank voor uw medewerking!