I was soaping you would recognize

The effect of sound symbolism, shape and colour on the consumer experience of solid soap.

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Abstract

Nowadays, people are exposed to unfamiliar and foreign brand names that are meaningless to them. However, these unfamiliar brand names can create certain associations in the mind of the consumer due to sound symbolism. As Fenko, Lotterman and Galetzka (2016) showed that congruency between product attributes leads to higher product expectations and these products tend to be more likely to be purchased in case of (healthy) food products, it is questionable if this is also generalizable for personal care products. If so, this would be a crucial element to take in mind for designers and marketers since consumers often switch between brands within personal care products.

In this study the focus will be on solid body soap and the effect of congruency between name, shape and colour. For this study a 2 x (round versus sharp shape) 2 x (soft sound versus sharp sound name) 2 (white versus blue) design is used. The perception of cleansing power, perception of femininity/ masculinity, product liking, product attitude and purchase intention were measured. The moderator is gender since it can be expected that females are more attracted by soaps with feminine characteristics and for males vice versa. It was expected that the congruent combinations between gender characteristics of the soaps will be more liked, purchased, have a more positive attitude and a higher expected cleansing power over the incongruent combinations.

The results of the study show that congruency between name, shape and colour had no main effect. It turned out that colour had a significant effect for many dependent variables and therefore can be perceived as dominant.

Keywords: sound symbolism, congruency, product design, solid soap

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1. Introduction

Soap has a rich history in the field of marketing as the soap branch Ivory already launched appreciated campaigns back in 1898 (Coombs & Batchelor, 2014). This brand was even one of the first who made use of atmospherics and soft sell advertising (Wänke, 2008). However, developments within the marketing industry have continued during this time: the way products are advertised has greatly changed since then. An example of a thought-provoking marketing object is product naming. This forms more of a challenge today due to the continuous flow of upcoming new products and brands introduced to the global marketplace, which creates a heightened need to generate effective new names for them. These are new developments in the marketing world and there is a potential relevance of sound symbolism for fields of product naming and product design (Spence, 2012). The theory of sound symbolism refers to the phenomenon that the sound of a word conveys a certain meaning and even meaningless words can create certain associations (Yorkston & Menon, 2004; Jakobson & Waugh, 2002).

However, limited academic research has been conducted in the area of sound symbolism (Klink, 2000). In marketing business it is important to think about the name of the product since sound symbolism helps consumers to create a meaning before even trying the product (Hinton, Nichols & Ohala, 1994). Furthermore, it is a critical step for marketers to select the right name for their product since a good brand name enhance memorability, create favourable images, increase preference for products and they are an important component in building brand equity (Aaker, 1996). So it can be concluded that the name of a product can be of great importance. Nevertheless, tons of research has confirmed that the colour and shape of a product also can be of great significance. The appearance of a product, if there is a package or not, is of great importance since it attract and sustain attention of consumers. It applies as a vehicle for communication and it concerns marketing communication (Silayoi & Speece,

2007). Moreover, a lot of research has confirmed that visual aspects of a product such as colour and shape influence consumers' evaluation of products (Madden, Hewett, & Roth, 2000; Becker, Van Rompay, Schifferstein & Galetzka, 2011). Therefore brands make use of these aspects to create more favourable evaluations (Becker et al., 2011). So the colour, shape and name of a product are cues to communicate and create a better evaluation of the product.

Next to creating a better evaluation, the colour, shape and name can be used to be distinctive. By this brands generate differentiation which is important for a brand to stand out and to be evaluated more positively than its competitors (Karjalainen, 2007). This is extra relevant in the soap branch since consumers switch frequently between brands to try soaps with different shapes, colours and packages. For example, Schoonbrood (2016) showed that (the soap related product) shower gel is seen as a product category where variety-seeking behaviour is dominant. Variety seeking behaviour means that consumers have the tendency to switch brand within a category (Zhang, Krishna & Dhar, 2000). And there is enough choice as there is an extensive offer of brands and products within bath and shower products (Sahoo, 2013). Therefore it is extremely important for a soap brand to communicate strongly that the soap fulfils all the needs of a consumer. Moreover, price can be influenced by shape and colour in a way that a product will look more valuable and luxurious (Van Rompay & Pruyn, 2008). So shape and colour can enhance the image of the product and can create visual appeal. Also congruency between product attributes can create a preference in choice which is important since, as mentioned above, consumers frequently switch between soap brands (Becker et al., 2011). The decision for a certain name, shape and colour for a product like soap is endless. Products for personal care can be seen as more masculine or feminine based on the characteristics the product has. A soft light white pampering product can be more appealing to women then to man and therefore this is important for designers and marketers how they position their product.

So when consumers want to buy a new soap they are faced with this choice every time, which soap fulfils their needs?

In practice, soap branches are using all variations of marketing techniques, but little is known about which combination of shape, name and colour is perceived as cleanest as this is the main goal of soap. When it comes to naming a product, different aspects have to be taken into account since a name of a product can create associations. Therefore it is important to find out which name fits the product the most. Fenko et al.(2016) found that the interaction of shape and name does matter when designing (healthy) food and it is questionable if this also goes up for products like soap. So if the interaction between naming and shaping of a product is generalizable for other domains like personal care products. Next to this, the results of the study of Fenko et al. (2016) was based on research executed online, but if people see the product physically will the shape and sound symbolism produce the same positive congruency results? Also, research so far did not focus on the influence of sound symbolism towards perceived cleansing power of a product.

To conclude, this will be an exploratory study on existing foreign soap names and if congruency between product attributes matters for soap. Next to this, this study will examine how shapes and colours in combination with names can support the communication of the power of cleanliness and to stimulate product liking, product attitude and the purchase intention. The main research question is: *To what extent does congruency between the name, shape and colour have an effect when it comes to consumer responses towards solid soap?*

2. Theoretical framework

Solid soap, which belongs to personal care category, can be seen as utilitarian product, but also as a more hedonic product. As the research of Lim & Ang (2008) suggests: in a utilitarian way soap is for protection against bacteria, but in the hedonic attribute soap will give a fresh fragrance. The upgrade of soap from a daily needed product to a more luxurious one can be done by colour, shape and scent. In store consumers have no time or motivation to gather product information and to process this so they buy products on the base of recognition to make a quick purchase decision and on the base of intuitive connections between sensory perceptions (Charters, Lockshin & Unwin, 1999).To refer to the cross-model correspondence (Schifferstein & Spence, 2008) where a symbolic meaning of a product can be communicated trough attributes. In the specific situation of soap: perceived cleansing power can be communicated through colour, shape, name and in this research it will focus on what the consequences of these traits are for the consumer perceptions of solid soap.

2.1 Sound symbolism

Phonemes (sound units) provide meaning themselves through sound symbolism. Sound symbolism refers to the phenomenon that the sound of a word conveys a meaning and even meaningless words can create meaning (Yorkston & Menon, 2004). As stated by Yorkston & Menon (2004, p.43) 'brand names are composed of individual sounds called phonemes'. These sounds are providing cues about how the brand may perform on specific attribute dimensions (Yorkston & Menon, 2004). It stands for the direct link between sound and a meaning. In other words: sound symbolism is the "the linguistic process in which the sounds of a word provide cues about the words' meaning" (Yorkston & Menon, 2004 p. 43).

Consumers use information they gather from phonemes in brand names and by this they presume product attributes and evaluate the brands. When showing

individuals unfamiliar words they will consistently use sound symbolism to interpret meanings from the name about the referenced object (Jakobson & Waugh, 2002). Even meaningless words can create certain associations. Research confirms the importance of sound symbolism since the brand and product names can create certain associations and since consumers like products more since it meet their expectations than not, the name is of importance. Besides this, research of Yorkston & Menon (2004) confirmed that consumers gather and process information from product names in effortless and in an automatic way and therefore expectations about the product. McNeil (2003) stated that sound and shape symbolism operates at an implicit and unconscious level.

Additionally, sound symbolism affects the overall evaluations of products (Yorkston & Menon, 2004). Therefore Yorkston & Menon (2004) advice that a successful brand name exist of a name that is congruent with the product category and one that is phonetically fitting the positioning of the brand within that product category.

Sound symbolism has been observed to exist in several native languages, from North America, Latin America, Africa, Asia, and within European languages (Hinton, Nichols & Ohala, 1994). Furthermore Klink (2000) showed that the basic phenomenon of sound symbolism has been confirmed for a widespread range of sounds across multiple dimensions. However, Wan, Woods, van den Bosch, McKenzie, Velasco & Spence (2014) claims that the interpretation depends on cultural backgrounds. Therefore it is suggested to do further research within this field to find out whether sound symbolism is a universal principle.

2.1.1 Sound and associations

To go deeper into the theory of sound symbolism, research showed that brand names that begin with hard consonants, for example Kodak and Pepsi elicit a higher recognition (Vanden Bergh et al. 1984). This is relevant in terms of brand salience: when naming a product in the category of soap brands strive to come up

in the mind. Brand salience has thereafter an effect on purchase intention (Alba & Chattopadhyay, 1986) which is important within this branch. Moreover, research of Klink (2000) showed that the use of front vowels in a brand name create associations as smallness, lightness, mildness, femininity and prettiness. Front vowels are words produced in the front of the mouth and examples are beat, ease, man, and gel. Examples of central vowels are boat and above, examples of back vowel words are rule and pole and they are produced in the back of the mouth. Moreover, to quote Wu, Klink & Guo (2013, p.319) 'when sound in a brand name is congruent with the gender target of the brand, consumers indicate a greater preference for the brand name and exhibit more favourable responses toward the brand.' This will provide a gender brand personality through brand names, which facilitates gender targeting efforts (Wu, Klink & Guo, 2013). So, assuming from the theory of congruency between product attributes and the gender of the user, create preferences in choice (Becker et al., 2011) this will be tested.

The success of new product depends not only on a product name, but also on other factors including shape. Therefore, it is important to consider sound symbolism in combination with other product characteristics, such as product shape and product colour.

2.2 Shape

2.2.1 Sound and shape

Various researchers mention a difference between round and sharp shapes and the perceptions it evokes. Köhler (1929) was one of the first researchers who studied about the cross-model correspondence between sound and shape and after that a lot of research followed. When people hear a certain sound they spontaneously relate it to specific shapes (Ramachandran & Hubbard, 2001). Parise & Spence (2009) found out that there is a correspondence between lower pitched and higher pitched sounds and the objects. Lower

pitched sounds were correlated with larger objects and higher pitched sounds were correlated to smaller objects. In research of Köhler (1929) it was found out that soft sounding words like the meaningless word 'Maluma' was matched by round, cloud-like shapes, while the sharp sound word 'Taketa' was matched to spiky, star-like shapes. Based on the certain need for congruence among consumers (Van Rompay & Pruyn, 2011) it is expected that 'round sounded words' are more preferred combined with products with a round shape and 'sharp sounded words' are more preferred combined with products with an sharp shape. This can be supported by the research of Fenko et al. (2016) which showed that congruency between the name and the shape of a product is liked over the incongruent combination (Fenko et al. 2016). When a product is liked more it has a higher rate of purchase intention (Bower & Turner, 2001).

2.2.2 Soap and shape associations

Research concerning soap and the care of wounds suggest that a plain white soap in combination with sterile water is the best to clean wounds. The emphasis is on the white and gentleness of soap in here and so that are attributes which are sought in soap (Peterson, 1945). In addition, there is set up a list with qualities soaps claims to have. Examples of these are 'deep cleans and leaves a pleasant sensation of softness and freshness', 'kills bacteria and germs', 'wash away dirt and bacteria and so gentle to the skin that it can be used on the face', 'gently cleanses and moisturizes leaving the skin feeling clean, soft and refreshed (Lai, 2005). These are all attributes from brands to differentiate and promote their soaps. So soap has to be intense in such a way that it is effective but at the same time mild and gentle to the skin. Shape can help to strengthen or weaken these qualities. For example, round shapes symbolize harmony and references to nature. Further associations with round shapes are friendliness, harmony, gentle and accessibility (Berlyne, 1976; Bar & Neta, 2006; Zhang, Feick & Price, 2006). Robust, energy, strong and

modern are associations with sharp shapes (Berlyne, 1976). Osgood (1957) showed that sharp shapes are generally perceived as more masculine or potent in comparison with rounded shapes which are generally perceived as more gentle, soft and feminine. Schmitt & Simonson (1997) underline the findings that sharp shapes are associated with masculinity and round shapes with femininity. In the next session about hypotheses, this will be tested.

Consumers might prefer round shaped packages, however, sharp shaping has its advantages. Firstly for the practical reason for easy storage and transport. Besides this it easily grabs the attention and is noticed quickly in the environment (Westerman, 2013). This for the reason that sharp shapes stand out. Sharp corners attract attention driven by fear, they almost innate an avoidance response in terms of the sharp edges (Bar & Neta, 2007). Bar & Neta (2007) suppose that there is a general preference for rounded versus sharp shaped objects.

Becker, Van Rompay, Schifferstein & Galetzka (2011) stated that shape and colour do influence product evaluation. This study focuses on sound symbolism in combination with two attributes of the product soap, namely colour and shape. Lots of research confirms that product expectations can be based on the colour and shape of a product. This makes it relevant especially in the interaction with each other.

2.3 Colour

The selection of colour is inevitable by producing a new product. As mentioned before, colour reveals product attributes. Kotler (1973) stated that the tangible product is only a small part of the total consumption and that consumers respond to the total product including pleasantries, imagery and collateral. Furthermore Cheskin & Masten Inc (1987) argued that product quality is the ultimate determinant of consumer satisfaction, but imagery is the vehicle that generates interest via sensational system. This means the emotional response is triggered by colours of products, packages and logos which influence the perception and

believes of the consumer in product and the brand behind. Therefore interactions between product attributes will be tested. In this section the focus will be on the importance of colour and the meanings behind different colours.

In marketing colour can effectively be used to communicate certain product characteristics (Ruumpol, 2014) or can be used to communicate a desired image in the head of the consumer (Madden et. al). Next to this, the use of colour can be powerful, for example adding just a subtle use of red can be of enormous influence (Aslam, 2006). Furthermore colour causes differentiation from the environment and the competitor (Aslam, 2006). Colour plays also an important role in the purchase process. Marketers use colour to trigger unconsciousness associations with grocery shoppers who make the purchase decision in the blink of an eye (McDaniel, Lamb & Hair, 2012). An example of using colour in personal care is the sunlight soap and detergent of Unilever. These products are not only highly purchased because of advertising but also because of its attractive bright yellow colour (Kuttin, 2013).

Colour is an important cue in brand recall (Tavassoli and Han, 2002). Another factor of colour is that it communicates products attributes and it also influences thereby the perceptions about price and quality (Kerfoot, Davies & Ward, 2003). And an additional advantage of colour is that it is in many objects the least expensive way of changing a product (Parmar, 2004).

But colour can have various meanings differing between cultures. According to Madden et. Al (2000) the liking of white is not culture related. But at the same time, the colour white is in Asia associated with death but in the Anglo-Saxon world it stands for purity (Aslam, 2006). Additionally, white stands for peaceful, calming, cleanness, hygiene and soft (Madden, Hewett, & Roth, 2000; Mahnke, 1996). Other associations with white are bright, enlightened, peace and sterility. White is also associated with clean, pure, simple, harmonious and refreshing concepts and a colour preferred by female participants (He, Zhang, Zhu, Xu, Yu, Chen, Liu &Wang, 2011; Kaya & Epps, 2004).

The colour blue belongs to the cool colours (Aslam, 2006) and it is found out that cool colours tend to be soothing (Levy, 1984). Besides the colour blue is viewed as calming (Elliot, Maier, Moller, Friedman & Meinhardt, 2007) and linked to competence and associated with factors as intelligence, communication, trust, efficiency, duty and logic (Fraser and Banks 2004; Mahnke 1996; Wright 1988). Furthermore the colour has a calming and soothing effect and stands for of honestly and expertise (de Boer, n.d). In the west of the world blue is seen as a colour which evokes a lot of trust. Guilford & Smith (1959) found out that blue is one of the most preferred colours. Hogg (1969) also found that blue is one of the most preferred colours.

Another research of Kaya and Epps (2004) among students concluded that in 79,6% of respondents the colour blue evoked positive emotions against 61,2% with the colour white. Next to this, blue was less associated with negatives words. When comparing blue with white it was found that people have more of a feeling of privacy in a blue environment compared to a white environment (Stone, 2001). Soap is a part of personal care which often is used during private time.

As described before, soap can be indicated as a refreshing product. The fresh qualities of a product, such as the colours blue and white, can be associated with particular environments such as a blue sky or activities such as sailing (Fenko, Schifferstein, Huang & Hekkert, 2009). So the colour blue is linked to refreshing activities that are similar to soap.

In the survey of Gatti, Bordegoni & Spence (2014) it was tested which effects colour have on the intensity of liquid bath soap in means of fragrance. They concluded that the bottle with the highest saturated colour (red) had the most intense fragrance compared to pink and white bottles of bath soap. In this case the more saturated colour did have an effect on the perception of intensity.

Comparing blue with white, blue is a more intense and stronger colour. Relevant between colour saturation and potency perception. They stated that highly saturated colours give a boost in the perception of stimulus intensity. This is

relevant for soap because the intensity of colour will give the expectation of the potency of product. Blue could lead to a higher expectation since this colour can be made highly saturated.

2.3.1 Colour & gender

In research it was found out that especially man have a preference for blue (Ellis & Ficek, 2001; He, et. al, 2011). Furthermore there is a tendency worldwide to dress baby boys in blue and this habit increases the preference in later life (Kidwell & Steele, 1989). And also, according to the hunter-gather theory, men as hunters would prefer colours they encounter frequently in natural environments, such as the blue sky (Hurlbert & Ling, 2007). This in contrast with women who tend to have a preference for pink, purple and white (He, et. al, 2011).

Another interesting phenomenon is auditory-visual synaesthesia. Chiou, Stelter & Rich (2013) explain the auditory-visual synaesthesia as an unusual form of cross-modal integration where sounds evoke involuntary visual experience. Specific to colours it is called: the colours' visual-auditory synaesthesia which refers to the natural relationship between colours and sounds. In other words: verbal arousal could lead to visual arousal. Examples are coloured vowels, coloured music and coloured hearing.

Moderator: gender

Gender plays also a role in the perceiving of products. This because it might be that the liking of the product soap differ between male and female since research found out that man and women perceive products in terms of masculine and feminine. A series of studies have shown that consumers attribute masculine and feminine roles to various products (Till & Priluck, 2001). Gentry, Doering and O'Brien (1978) found out that products as cologne, deodorants and soap are categorized as feminine as opposed to beer and boots which were seen as masculine. Therefore gender functions as a moderator.

On the other hand, Alreck, Settle & Belch (1982) categorize soap as a neutral product and did an experiment with soap and gender. One soap was manly in such a way that it was named Tiger and the other soap contained the feminine name Rainbow. Results showed that participants perceived the soap distinctively more masculine or feminine related to the frame and the study concludes that people prefer products associated with their own gender. Gentry et.al (1978) found also out that the frequency of use bar soap depends on the perception of the product. Masculine participants used bar soap more if they perceived it as being more masculine and the same goes up for feminine respondents as they used a bar soap more they perceived it as being more feminine. So the attitude towards a product can differ dependent on gender and if the product is congruence with the user, it will more be used as this is of importance to know for marketing business. To conclude clearly: the product could contain masculine/feminine attributes (name, shape & colour), but the product itself can also be itself masculine (beer & boots) or feminine (cologne & soap).

2.4 Hypotheses

A number of hypotheses could be prepared based on the literature mentioned before. The hypotheses are arranged on level of complexity and will help to answer the main research question:

To what extent does congruency between the name, shape and colour have an effect when it comes to consumer responses towards solid soap?

Name: Brand names containing a front vowel create associations as smallness, lightness, mildness, femininity and prettiness (Klink, 2000). And as sound symbolism affects the overall evaluations of products (Yorkston & Menon, 2004), it interesting to find out if a soap with a feminine name is seen as more feminine than soap with a masculine name. This is also tested the other way around.

H1a: Soap with a feminine name is seen as more feminine than soap with a masculine name.

H1b: Soap with a masculine name is seen as more masculine than soap with a feminine name.

Shape: Based on the findings of Bar & Neta (2007) of a preference for round shape as described above, the following hypotheses is formulated:

H2: The round soap will be more liked than the sharp soap.

Colour: White is related with cleanness, hygiene and soft (Madden, Hewett, & Roth, 2000; Mahnke, 1996). White is also associated with clean, pure, simple, harmonious and refreshing concepts (He, Zhang, Zhu, Xu, Yu, Chen, Liu &Wang, 2011; Kaya & Epps, 2004). Blue is compared to white, more saturated, more intense and stronger colour.

H3a: The perceived cleansing power of a soap is positively affected when the soap is white instead of blue.

H3b: The perceived cleansing power of a soap is positively affected by the presence of blue instead of white.

Congruency

Name-shape: Various research confirmed that the theory of congruency between product attributes create preferences in choice (Becker et al., 2011; Van Rompay & Pruyn, 2011). The research of Fenko et al. (2016) confirmed that congruency between the name and the shape of a product is liked over the incongruent combination. Based on this, the following hypotheses are formulated:

H4: Congruency between the name and the shape of soap is liked more than incongruence between the name and the shape of soap.

H4a: The round sounding name will be more liked on a round shaped soap than on a sharp shaped soap.

H4b: The sharp sounding name will be more liked on a sharp soap than on a round shaped soap.

Round shapes are more perceived as gentle, soft & feminine (Osgood, 1957; Schmitt & Simonson, 1997). Sharp shapes are perceived as robust, energy, strong, modern and masculine (Berlyne, 1976).

H5a: The round shaped soap, combined with a round name will be perceived as gentler (and therefore more feminine, less cleansing power) than the incongruent combination (sharp shape & round name/ round shape & sharp name).

H5b: The sharp shaped soap, combined with a sharp name will be perceived as having a greater intensity of cleansing power than the incongruent combination (sharp shape & round name or round shape & sharp name.

Shape-colour: Congruency among product attributes facilitates processing (Van Rompay & Pruyn, in press). Processing fluency has been shown to generate positive affect so it can be expected that congruency affect the overall product evaluations as product attitude in a positive way (Reber et al., 2004).

H6: Shape-colour congruency (sharp shape combined with blue or a round shape combined with white) will lead to a more positive overall product attitude compared to shape–colour incongruence (sharp shape combined with white or round shape combined blue).

Gender user-product: Research of Gentry et al. (1978) found out that people prefer products associated with their own gender.

H7: Gender congruency between (soap) product attributes and respondent leads to higher positive attitude compared to incongruence between soap product attributes and respondents

H7a: Male respondents will prefer the masculine soap more compared to the feminine soap.

H7b: Female respondents will prefer the feminine soap more compared to the masculine soap.

Blue is a colour preferred by man (Ellis & Ficek, 2001; He, et. al, 2011). Women who tend to have a preference for white (He, et. al, 2011). A soap with a feminine name/round shape can be preferred by women since people prefer product associated with their own gender (Gentry et al., 1978).

H8: The influence of name, shape and colour of soap on product liking and product attitude is moderated by gender.

Since congruency between product attributes has positive effects (Reber, Schwarz & Winkielman, 2004), the congruent combinations will also be test. The colour white is a soft and gentle colour, match with the characteristics of soap and a colour preferred by women (He, et. al, 2011). Round is also a feminine shape

(Osgood, 1957). The opposite of this, the complete manly version will also be tested:

H9a: The round sounding name will be more liked on a round shaped, white soap.

H9b: The sharp sounding name will be more liked on a sharp shaped, blue soap.

The last hypothesis is an exposition of the research question:

H10: The use of congruent elements within soap (round shape, round name and white or sharp shape, sharp name and blue) will be liked more, having a more positive attitude, more expected cleansing power and a higher purchase intention compared to the a mismatch/incongruence of elements within soap (round shape/sharp name/blue, round shape/round name/blue, sharp shape/white, sharp name etcetera).

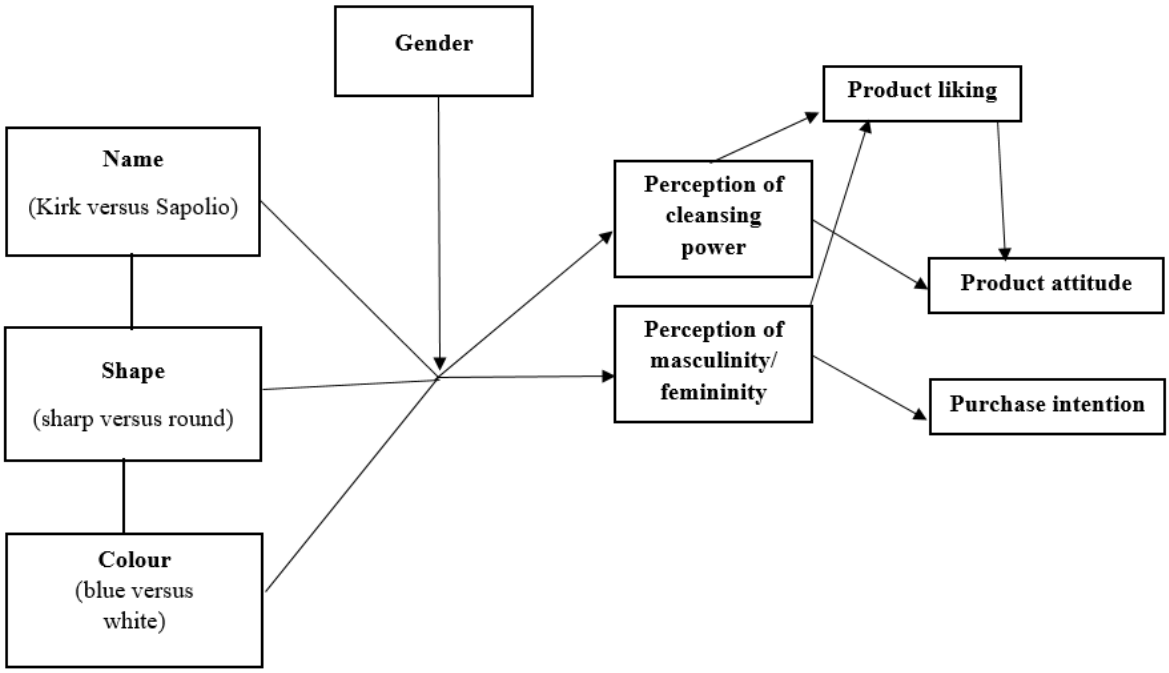

Figure 1: Research model variables

3. Research methodology

In this part the exploring of the names will be set out. Also the search of finding the right shade of blue for the soap will be explained.

3.1 Pre-test names – part 1

A selection of fourteen foreign soap names was pre-tested in two phases. First on the aspects sharpness and softness by using a Q-sort method. The three sharpest and the three softest sounding names were used for the second part of the pre-test.

The fourteen names of soap were found on the internet and the list of the names as well as the Q-sort can be found in Appendix 1. The conditions to participate were that the participants were skilled in the Dutch language and above 18 years old. In total 17 participants filled in the Q-sort, while more women than men participated.

The second phase of the experiment existed of evaluating the names with a semantic differential scale of 5- points. The participants had to assess the names on several variables as like – dislike, sharp – round, mild- intense, luxurious – basic etcetera. This semantic differential pre-test can be found in Appendix 2.

Approximately half of the variables are based on the research of Henderson, Cote, Leong & Schmitt (2003) where the affective response was measured.

Based on 17 times filled Q-sort, the most chosen word for round was ‘Lano’, followed up by ‘Sapolio’ and ‘Faso’. The most chosen word for sharp was ‘Kirk’ followed by ‘Speick’ and ‘Moksa’. With these words resulted from pre-test 1 the second phase of the pre-test was done by means of a semantic differential.

3.2 Pre-test names – part 2

The semantic differential is completed by 13 participants on paper. As the results of Table 7 show (see Appendix 2) the name Kirk is assessed as most masculine in the sense of sharp, masculine and participants perceived this name as most blue. The name Sapolio is seen as most feminine, white and as the second best round name, after Lano. Furthermore the name Sapolio is assessed as the most distinguishing name and perceived as second best rinsing and therefore this name will be part of the main research. The name Lano could also be a decent fit for a round, white, feminine soap, as it is perceived as the best name in good versus bad, seen as most round and as most mild. But after settle down attributes Sapolio (feminine, white, round second best, distinguish and rinsing second best) has more fitted attributes for this study against Lano (good, round, mild). The p-values of the names can be found back in the Appendix 2.

To conclude, the name Kirk is the best name to use for the main research as sharp, blue and manly name. The name Sapolio is advised to be used for the white, feminine and round shaped soap when it comes to congruency.

3.3 Pre-test colours

In the pre-test of colour, the main goal was to find out which shade of blue was intense in the way of cleansing but still fits soap. The pre-test was purely focused on colour and a picture of the five test soaps can be found in Appendix 3. The pre-

test did contain two questions: one about the perceived intensity of cleansing of the presented soap, and another about the expected fragrance of the presented soap (see Appendix 3). In total ten participants evaluated randomly three different soaps out of five. Each soap is judged six times and the results can also be found in Appendix 3.

Notable is that the results show an upward trend by the ratio of saturation and perceived cleansing/fragrances. Based on the results it can be concluded that the more saturation, the more a soap is perceived as intense in cleansing and fragrance and therefore soap 5 (the most saturated) was advised for the main study.

4. METHOD SECTION: MAIN RESEARCH

4.1 Experimental design

This study employees the effect of congruency within soap attributes. To examine the hypotheses that are composed a 2 (*soft sounding name vs. sharp sounding name*) x 2 (*white vs. blue*), x 2 (*round shape vs. sharp shape*) experimental design was proposed. The four soaps and nametags can be found in the Appendix 6. The dependent variables were product liking, product attitude and purchase intention. Also the perceived cleansing power and the perception of masculinity/ femininity was measured.

The measurement found place physically and the participants were randomly assigned to one of the eight conditions. For the creation of the stimulus material, the soaps were handmade poured. The soaps did not contain a specific fragrance. This is left out of consideration to focus on the colour, shape and name.

Table 1: Overview of conditions

Conditions	Name	Colour	Shape
1	Kirk	Blue	Sharp
2	Sapolio	Blue	Sharp
3	Kirk	Blue	Round
4	Sapolio	Blue	Round
5	Kirk	White	Sharp
6	Sapolio	White	Sharp
7	Kirk	White	Round
8	Sapolio	White	Round

Measuring instruments

The research that is used is quantitative in the form of a paper questionnaire. The questionnaire was pre-tested by three participants to gather feedback on aspects like comprehensibility of the questions and small mistakes. Feedback from these participants was about the outlining of the questions on one page, the order of the questions and an extra check on the answer possibilities. The feedback has been used to adjust the questionnaire before the start of the definitive research.

4.2 Procedure

The quantitative research was held in the public atmosphere and especially on Saxion Enschede and the University of Twente by means of a printed questionnaire. Before the research started, the participant read the informed consent form and after the consent was given the questionnaire was started. After answering the first general soap questions, a specific condition of soap including name card was presented. All the respondents were randomly assigned to one of the eight conditions. Every participant received the same questionnaire, except a question about the name of the soap, which depended on the condition the participant was assigned to.

4.3 Participants

In total 161 participants were part of the study. The majority of the participants were women (female: 107, male: 54). The sample consisted of participants above the age of 18 and who were skilled in the Dutch language. This because the research was held in the Netherlands. The age of the participants ranged from 18

to 70 years, with a mean age of 23.93 (SD=10.16). No significances were found in age within the eight conditions.

Table 2: Demographic characteristics per condition

Condition	N	Age	
		M	SD
Blue-sharp-Kirk	19*	21.11	2,90
Blue-sharp-Sapolio	20	22.05	3,02
Blue-round-Kirk	20	28.05	14,47
Blue-round-Sapolio	20	33.30	19,50
White-sharp-Kirk	20	21.70	4,81
White-sharp-Sapolio	21	21.48	4,02
White-round-Kirk	20	23.90	7,82
White-round-Sapolio	20	19.85	1,90

**One participants forgot to fill in his age*

As can be seen in Table 3, most participants never or rarely used solid soap as opposed to 40 participants that used solid soap monthly or more often.

Table 3: Frequency of the use of solid soap

Use of soap	Frequency
Never/rarely	103
Monthly	18
Weekly	19
Couple times a week	9
Daily	12
Total	161

4.4 Measures

The questionnaire aimed to measure the effect of the name, shape & colour and the moderating effect of gender on the dependent variables product liking, product attitude, gender perception, hedonic/utilitarian, cleansing power and purchase intention. Appendices 4 & 5 includes the questionnaire in both Dutch and English.

All the questions could be answered on a five point Likert scale, where 1 meant 'totally disagree' and 5 meant 'totally agree'. Except from question masculinity – femininity where a 7 point scale is used. In Table 4 the Cronbach's Alpha can be found.

Table 4. Cronbach's Alpha Dependent Variables

Variables	α	N-items	Deleted items
Product liking	0.87	4	0
Product attitude	0.76	3	1
Gender perception	-	1	0
Purchase intention	0.79	4	0
Hedonic	0.76	4	0
Utilitarian	0.61	4	0
Cleansing power	0.66	3	2

Reliability and validity

For this research a Cronbach's Alpha of 0.70 is used as a threshold to determine reliability, with the aim that all items measure the same concept (Tavakol & Dennick, 2011). Unfortunately two of the variables are under this threshold but after discussion they are still worthy to use for this research.

Product liking

The product liking is measured with the help of the research of Finger (2016). A total of four items were used for product liking and examples of the questions are: 'The soap is attractive' and 'The soap appeals to me'.

The difference between product liking and product attitude is that the product liking questions are more focused on the first impression and short term whereas the questions of product attitude are something deeper and thorough. Example of questions for product attitude are: 'I expect that the use of this soap has a positive effect' and 'the soap fits my wishes'.

The definition of the term attitude is referred to a reviewer's overall evaluation of persons, objects and issue (Lee, Park & Han, 2008). Another explanation for attitude is an individual's internal evaluation of an object, for example a branded product. Attitudes are described as a relatively stable and

enduring predisposition to behave (Mitchell & Olson, 2000).

According to Fishbein, there is a causal flow among evaluations/attitudes and intentions. This works as following: a marketing stimulus such as advertisement affect consumers' beliefs first. Then the influenced salient beliefs mediate on attitude and attitude in turn mediates subsequent effects on the behavioural intention. The attitude is determined by a set of salient beliefs, so a change in attitude must be mediated by changed in those beliefs (Fishbein & Ajzen, 1977). In practice, to have influence on the behavioural intention to purchase a product, this starts with the beliefs about the object.

Product attitude

The product attitude is measured by the perceived quality and attraction of the soap. Five items were used based on a similar study of Berends (2016). An example of a statement given to the participants is: 'I expect positive outcomes when using this product'. Based on the questions, it could be determined whether the participants had a positive or a negative attitude towards the solid soaps.

Purchase intention

Purchase intention can be defined as the willingness of a consumer to buy a specific product or service and the study of Dodds, Monroe & Grewal (1991) was used as a base for this study. An example of a statement used to measure purchase intention is: 'I would consider to buy this product'.

Hedonic – Utilitarian

In the research of Mehrabian & Russel (1974) four hedonic- and four utilitarian consumer attributes are described. Eight questions based on this study were asked to discover if the soap is seen as hedonic/utilitarian and to which extent. Examples for hedonic are: pleasant-unpleasant, nice – awful, examples for utilitarian are: useful – useless, valuable – worthless. For this study it was researched whether respondents categorize the different soaps as hedonic or utilitarian.

Perception of Masculinity – Femininity

At the beginning of the questionnaire (before the stimulus material was showed) two general questions about the gender perceiving of soap were asked. This was in order to find out if soap is categorised as a masculine or feminine product.

Further down, questions about the presented soap were asked. The questions about gender product attributes are based on the study of Drost (2013) and implemented to find out if the soap was more feminine/masculine. After performing a reliability test, it turned out that those questions did not exactly measure what was intended (α=.51). This construct is therefore eventually based on 1 item questioning the overall soap and to which this was masculine----- feminine (scale from 1 till 5). The soaps contained three manipulated attributes, namely a masculine/ feminine name, masculine/feminine colour and a masculine/feminine shape. The eight stimulus materials were classified as more feminine/masculine (two-third or completely) to test hypothesis 8.

Cleansing power

Because this dependent variable is quite under researched, the questions for this part are defined by the researcher. Examples of the questions are: 'the soap has a strong cleansing power' and 'the soap has a mild effect' with answer options of a 5-point Likert scale. Almost all questions were based on a 5-point Likert scale. Except from the question: 'how intensive do you expect the rinsing of the soap' were participants could rate on a scale from 1 till 10 (whereby 1 is not intensive and 10 stands for extreme intensive).

5. Results

To ensure that the independent variables name, shape and colour were perceived as intended, manipulation checks were conducted. Participants had to rate if they perceived the soaps as masculine or feminine in case of shape/colour/name.

The Chi-square tests of independence were calculated and a significance for shape was found: $\chi^2(6) = 87.84$ $p < .005$. A significance was for name was also found: $\chi^2(6) = 45.63$ $p < .005$ and therefore hypotheses 1 can be supported. Colour turned likewise out to be significant: $\chi^2(7) = 161.00$ $p < .005$.

After preforming the multivariate analysis of variance (MANOVA), Wilks' Lambda showed significant results for main effects of colour ($F(7, 142) = 5.484$, $p < .005$, Wilk's $\Lambda = 0.787$). Likewise Wilks' Lamba showed significant effects for shape ($F(7, 142) = 5.221$, $p < .005$, Wilk's $\Lambda = 0.795$). In addition, a marginal significant effect was found for the interaction of colour*name ($F(7, 142) = 1.898$, $p = .074$, Wilk's $\Lambda = 0.914$).

The between subjects analysis on each dependent variable can be found below in Table 4. In addition, a little test was done on the recall of the presented name. The results show that the name Kirk was significantly better remembered. The Chi-square test of independence was conducted and a significance was found, $\chi^2(2) = 7.70$, $p < .05$. Kirk (46 %) was more likely to be remembered against Sapolio (39.8%).

Table 4. Results of MANOVA

Test of Between-Subjects Effects

		F	p
Product liking			
	Colour	7.975	0.005
	Shape	0.076	0.783
	Name	0.482	0.488
	Colour x shape	0.175	0.676
	Colour x name	0.125	0.724
	Shape x name	1.664	0.199
	Colour x shape x name	0.734	0.393
Product attitude			
	Colour	1.370	0.244
	Shape	0.305	0.582
	Name	0.043	0.835
	Colour x shape	0.301	0.584
	Colour x name	2.079	0.151
	Shape x name	0.470	0.494
	Colour x shape x name	0.301	0.584
Perception of masculinity/femininity			
	Colour	1.787	0.183
	Shape	24.288	0.000
	Name	0.355	0.552
	Colour x shape	0.623	0.431
	Colour x name	0.009	0.924
	Shape x name	0.623	0.431
	Colour x shape x name	2.099	0.149
Purchase intention			
	Colour	0.754	0.387
	Shape	2.441	0.120
	Name	1.936	0.166
	Colour x shape	0.882	0.349
	Colour x name	0.317	0.574
	Shape x name	0.051	0.822
	Colour x shape x name	0.077	0.781
Hedonic			
	Colour	3.761	0.054
	Shape	2.348	0.128
	Name	0.018	0.892
	Colour x shape	1.304	0.255
	Colour x name	0.425	0.515
	Shape x name	0.332	0.566
	Colour x shape x name	0.007	0.931
Utilitarian			
	Colour	0.616	0.434
	Shape	0.424	0.516
	Name	0.124	0.725
	Colour x shape	1.211	0.273
	Colour x name	0.088	0.768
	Shape x name	0.172	0.679
	Colour x shape x name	1.984	0.161
Cleansing power			
	Colour	18.380	0.000
	Shape	12.422	0.001
	Name	0.029	0.864
	Colour x shape	0.381	0.538
	Colour x name	3.900	0.050
	Shape x name	0.381	0.538
	Colour x shape x name	1.314	0.253

Results of the dependent variables

An ANOVA was conducted and there is a significant main effect for colour ($F(1,155) = 7.975$, $p=.005$) on *product liking*. Participants exposed to the blue soaps

gave a significant higher score on product liking (M=3.28; SD=0.87) compared to the white soaps (M=2.91; SD=.70). There is furthermore a significant negative direct link (p=.006) between colour and liking (ß=-.353). This means that when soap is white the less the product is liked.

No significance effects were found for *product attitude*. A main significant effect of the *perception of masculinity/femininity* was found on shape: the ANOVA reveals a significance value of (F(1,155)=24.288, p<.005). The round soap was perceived as more feminine (M=3.45; SD=.83) compared to the sharp soap (M=2.77; SD=.79).

An ANOVA was conducted on *purchase intention* and no significant effects were found. Based on the results of the *hedonic qualities*, colour has a marginal significant effect (F(1,155)=3.761, p=.054). Participants perceived the blue soap as more hedonic (M=3.53; SD=.60) compared to the white soap (M=3.33; SD=.62). The *utilitarian perception* is also measured and no significant results were found.

Based on the ANOVA for the *cleansing power*, the effect for colour (F(1,155)=18.380, p<.005) and shape (F(1,155)=12.422, p<.005) and the interaction of colour*name is significant (F(1,155)=3.900, p=.050). The perceived cleansing power is significantly higher for the blue soaps (M=2.98; SD=.57) than for the white soaps (M=2.62; SD=.52). Participants who were presented with the sharp soaps (M=2.94; SD=.59) have higher expectations about the cleansing power than participants who were presented with the round soap (M=2.65; SD=.52).

Figure 2 demonstrates the significant effect of colour. Figure 3 showed the interaction of colour*name (F(1,155)=3.900, p=.050), where the incongruent combination scored higher in case of perceived cleansing power.

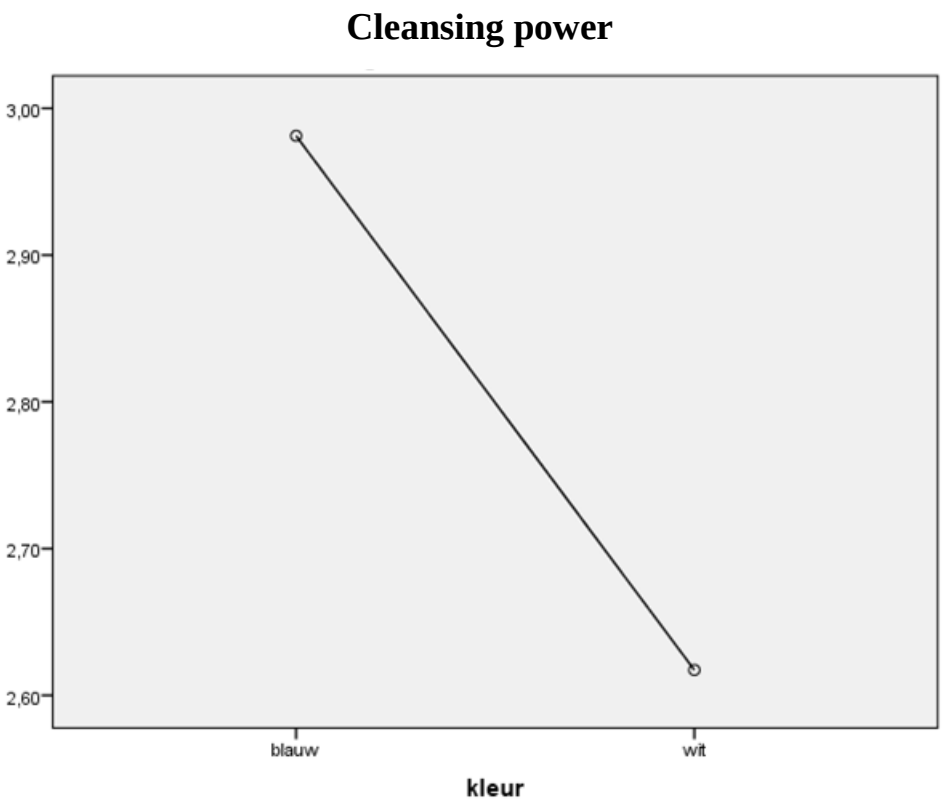

Figure 2. The perceived cleansing power of blue versus white

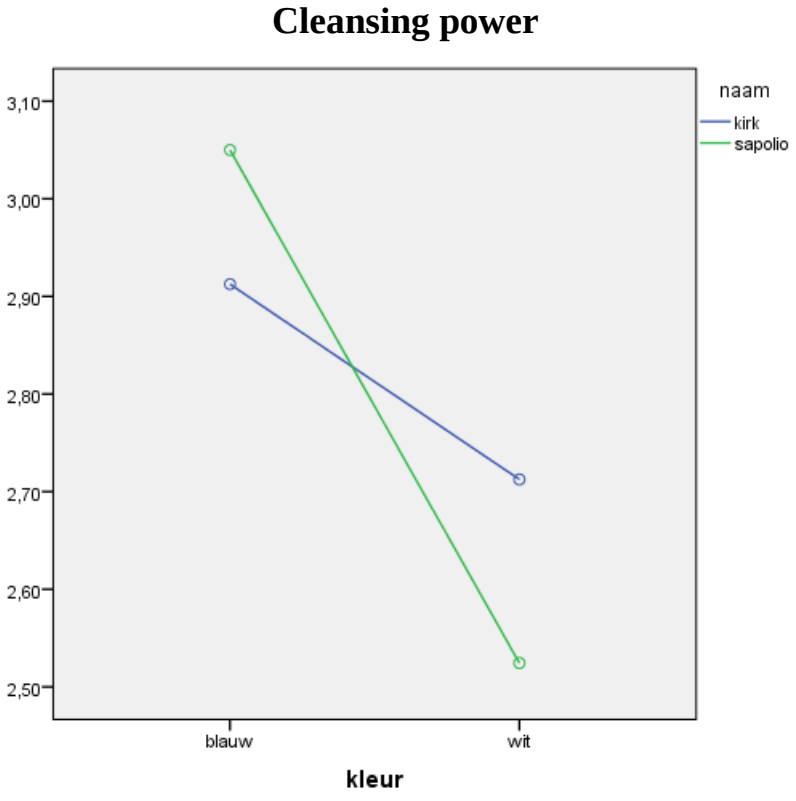

Figure 3. The interaction of name*colour

Soap in general: masculine or feminine?

Participants were asked how they perceived the product soap in general. Soap in general was seen as a more feminine product (M=3.00; SD=1.07) compared to masculine product (M=2.20; SD=0.97), $t(160)=-9.874$, $p<.005$.

On average, the male participants rated the question 'I perceive soap as a masculine product' higher (M=2.67; SD=0.75) compared to the female participants (M=1.96; SD=0.99). This is scored on a Likert scale from 1 to 5. However, the same question has been asked the other way around: 'I perceive soap as feminine product'. Remarkable is that male participants also rated this question higher (M=3.17; SD=1.00) against female participants who apparently perceive soap as less feminine product (M=2.92; SD=1.10). Next to this, it has been found that men use soap (M=2.04; SD=1.40) more often than women (M= 1.70; SD=1.20). The theory which predicts that men use soap more if they perceived it as being more masculine & woman use soap more as they perceive it as feminine cannot be confirmed since men perceive soap as a more feminine product (see Table 5). This supported by the correlation between the perception on soap (is it masculine or feminine)+gender participant and the frequency of the use of soap. For woman there was found a correlation: the Chi-square test of independence was calculated and a significance was found, $\chi^2(16)=25.806$, p=.057. Male participants do not significantly perceive soap as a manly product and there is not cohesion between the frequency of use and the perception of masculinity to soap. Overall, soap in general, is perceived as a more feminine product & the results show that male participants perceive soap both as more masculine and more feminine; in other words they rated the questions higher.

Table 5. Perceiving of soap

	Female participant		Male participant	
	M	**SD**	**M**	**SD**
Perceive as feminine	2.92	1.10	3.17	1.00
Perceive as masculine	1.96	.99	2.67	.75

Moderator: perception of the receiver (male/female)

Because the theory tells us that the perception towards a product can differ caused by gender (Till & Priluck, 2001; Gentry et. al, 1978), this is tested. The results show us that there is a tendency towards a link between gender and liking (ß=-.260). This is based on a marginally significant difference (p=.056) which indicates that product liking was higher for male participants (M=3.27; SD=0.69) compared to female participants (M=3.00; SD=.86).

Hypothesis 9 tested the moderator gender: the influence of gender on the effect of name, shape and colour on product liking and product attitude. For *product liking* neither name, shape nor colour has a moderating effect of gender.

For *product attitude* there is also not a moderating significant effect of gender on name, shape and colour. Therefore hypothesis 9 is not supported by this study.

Hypothesis 8 tested the influence of the gender of the participant on the presented soap. No significant effect was found based on the independent sample T-test. Male participants did not significantly prefer the masculine soap (M=3.26; SD=0.63) more compared to the feminine soap (M=3.13; SD=0.75), $t(52)=.702$, $p=.486$. Moreover, female participants did not significantly prefer the feminine soap (M=3.00; SD=0.77) over the masculine soap (M=3.05; SD=0.82), $t(103)=.254$, $p=.800$.

Table 6. Overview of the hypotheses

H#	Hypotheses	Results
H1a	Soap with a feminine name is seen as more feminine than soap with a masculine name.	Supported
H1b	Soap with a masculine name is seen as more masculine than soap with a feminine name.	Supported
H2	The round shaped soap will be more liked than the sharp shaped soap.	Rejected
H3a	The perceived cleansing power of a soap is positively affected when the soap is white instead of blue.	Rejected
H3b	The perceived cleansing power of a soap is positively affected by the presence of blue instead of white.	Supported

H4	Congruency between the name and the shape of soap is liked more than incongruence between the name and the shape of soap.	Rejected
H4a	The round sounding name will be more liked on a round shaped soap than on a sharp shaped soap.	Rejected
H4b	The sharp sounding name will be more liked on a sharp soap than on a round shaped soap.	Rejected
H5a	The round shaped soap, combined with a round name will be perceived as gentler (and therefore more feminine, less cleansing power) than the incongruent combination (sharp shape & round name/ round shape & sharp name).	Rejected
H5b	The sharp shaped soap, combined with a sharp name will be perceived as having a greater intensity of cleansing power than the incongruent combination (sharp shape & round name or round shape & sharp name.	Rejected
H6	Shape-colour congruency (sharp shape combined with blue or a round shape combined with white) will lead to a more positive overall product attitude compared to shape–colour incongruence (sharp shape combined with white or round shape combined blue).	Rejected
H7	Gender congruency between (soap) product attributes and respondent leads to higher positive attitude compared to incongruence between soap product attributes and respondents.	Rejected
H7a	Male respondents will prefer the masculine more compared to the feminine soap.	Rejected
H7b	Female respondents will prefer the feminine soap more compared to the masculine soap.	Rejected
H8	The influence of name, shape and colour of soap on product liking and product attitude is moderated by gender.	Rejected
H9a	The round sounding name will be more liked on a round shaped, white soap.	Rejected
H9b	The sharp sounding name will be more liked on a sharp shaped, blue soap.	Rejected
H10	The use of congruent elements within soap (round shape, round name and white or sharp shape, sharp name and blue) will be liked more, having a more positive attitude and a higher purchase intention compared to the a mismatch/incongruence of elements within soap (round shape/sharp name/blue, round shape/round name/blue, sharp shape/white, sharp name etcetera).	Rejected

6. Discussion

The aim of this study is to identify whether congruency between features of solid soap causes more product liking, a positive attitude and higher purchase intentions. Besides this it aimed to find out if the use of feminine/masculine features also changed the perception of the masculinity/femininity of soap. The last aim of the study was to find out if the perception of the cleansing power of soap is strengthened/weakened by the use of strong/soft characteristics.

6.1 Discussion of the results

The results show a main effect of colour which is in half of cases (marginal) significant: *product liking* (marginal), *gender perception*, *hedonic* (marginal) and *cleansing power*. However, more effects were expected and a possible reason for the low amount of significant effects could be the low frequency of the use of solid soap by participants and therefore possible low involvement with the product. As the results tell us (and can be seen in Table 3), 103 participants never or rarely use solid soap. Furthermore the circumstances between participants were different: some of the questionnaires were filled in on a bright sunny day while participants had a day off and some of them participate while studying inside. So, the atmospherics circumstances were not all even. Another suggestion why there are few effects is because of the observing way of judging the soap. Literature tells us that a product acts like a communication tool and provides the consumers with product related information (Mooy & Robben, 2002). The touch of a product gives an impression of the product quality, but in this study participants could not touch the product, which could lead to fewer strong opinions. Figure 4 shows the degrees of proximity towards a product. In this study the soap was partly direct, as it was shown to respondents but couldn't be touched. According to Mooy & Robben (2002, p. 432) a "direct experience enhances the opportunity and the ability of consumers to process product related information".

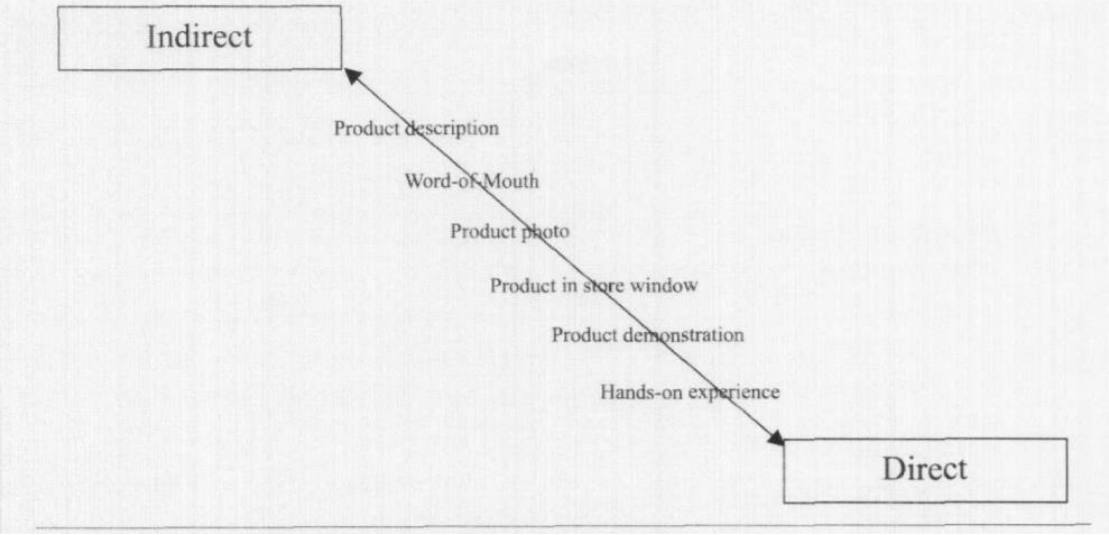

Figure 4. The direct experience spectrum (Mooy & Robben, 2002).

6.1.1 Product liking

There is a significant of colour on product liking. A possible reason for this is that colour is an important characteristic as colour, just as smell, immediately evokes a range of associations. As the literature describes, white stands for peacefulness, soft and hygiene (Madden et. al, 2000; Mahnke, 1996). Blue is linked to trust, refreshing activities and calmness (Elliot et. al, 2007; Fenko et. al, 2009; Fraser & Banks 2004; Mahnke 1996; Wright 1988). A shape is linked to soft or sharp instead of a range of characteristics. For names that are completely new, certain associations are directly made as that is what the theory of sound symbolism describes (Yorkston & Menon, 2004; Jakobson & Waugh, 2002). Interesting is the result that when soap is white the product is liked less. This is a remarkable finding since most soaps in stores are white and white stands in fact for sterility, clean, pure and refreshing (He, 2011; Kaya & Epps, 2004). An explanation for this is that the more unexpected blue is liked over white as this is a less expected colour. This more surprising colour within the product can bring something normal or even boring into a pleasant experience (Ludden, Schifferstein & Hekkert, 2008).

6.1.2 Product attitude

No significant effect were found on *product attitude*. A possible reason for the lack of significant effects could be the misunderstanding of the question (although they were based on previous research) or, as described above, a low level of involvement since the product attitude questions are focused on a more involved level.

6.1.3 Purchase intention

No significant effects on *purchase intention* were found either. The same reasons as above described (misunderstanding or/and low involvement) may apply for this dependent variable. However, there is a result which is in line with the literature: Bower & Turner (2001) described that when a product is liked more there is a higher purchase intention. The results of the means show that the condition blue, round, Sapolio soap is the most liked and from the analyses on purchase intention this condition of soap has also the highest purchase intention.

6.1.4 Perception of Masculinity/Femininity

As the literature describes that products as cologne, deodorants and soap are categorized as feminine as opposed to beer and boots which were seen as masculine (Gentry, Doering and O'Brien, 1978). The results confirm this: the participants rated soap more as a feminine product. Gentry et.al (1978) found furthermore out that the frequency of use bar soap depends on the perception of the product. Masculine participants used bar soap more if they perceived it as being more masculine and the same goes up for feminine respondents as they used a bar soap more they perceived it as being more feminine. The results show that the masculine participants soap not significantly more perceive it as a manly product and there is not cohesion between the frequency of use and the perception of masculinity to soap. However, for woman there was found a correlation between perception towards it and the frequency of use soap.

6.1.5 Perception of Cleansing Power

The effect of colour and shape turned out to be significant. Also the interaction of name*colour is marginally significant on the perception of cleansing power. As literature usually proclaims that that congruent combinations between characteristics cause a better evaluation and were more likely to be purchased (Becker et al., 2011; Van Rompay & Pruyn, 2011), this research shows that, in contrast to previous studies, the incongruent combination of name*colour is preferred (see Figure 6). From literature we know that this incongruent combination has its advantages. For example: a surprising product can bring something normal or even boring into a pleasant experience (Ludden, Schifferstein & Hekkert, 2008). An example of an incongruent surprising product is the perfume Flowerbomb designed by fashion designers Victor & Rolf. This perfume is shaped like a hand grenade and hold a sweet smelling, soft pink liquid. By combining incongruent conflicting elements, Victor & So, a surprising product can be both beneficial to the designer and the user. The Rolf succeeded in creating a perfume that attracts attention among dozens of perfumes that lines the walls of perfumes (Ludden, Schifferstein & Hekkert, 2008). designer benefits from the surprising reaction because it draws attention to the product, leads to product recognition and recall and it also increases the word of mouth. A surprising combination benefits the user as it makes the product more interesting to interact with (Ludden, Schifferstein & Hekkert, 2008).

6.1.6 Additional findings

Halfway the questionnaire of the main research a test on the name recall was done and there was found a significant effect. The name Kirk had a significant effect on brand recall. This is in line with the literature of sound symbolism: brand names that begin with hard consonants, for example Kodak and Pepsi elicit a higher recognition (Vanden Bergh et al. 1984).

The finding that colour is the product attribute that predicts the most dependent variables can be explained by the theory of sensory dominance. This entails that all the senses are involved simultaneously but the impact to the overall product experience is not necessarily equivalent (Fenko, Schifferstein, Huang & Hekkert, 2009). It seems that the perception of colour predominates and eliminates other features.

6.2 Implications

In this section the theoretical and practical implications of this study are discussed. The theoretical implications are pointed out followed by a number of practical implications.

6.2.1 Theoretical implications

This study had the aim to test the congruency theory for the product of solid soap. This theory is not proven in this study. In contrast, the incongruent interaction of name*colour was expected to have more cleansing power (see Figure 3). More research about the positive effects of incongruence within a certain product category can be advised. Colour did furthermore play an important role, next to the shape. The results are interesting and can be a kick start for further research as it turned out that colour had a main effect for different purposes (product liking, hedonic, cleansing power). Shape had a significant effect for the cleansing power and the perception of the femininity/masculinity of soap. Earlier research of Fenko et al. (2016) showed that shape matters when designing healthy food, while in this study shape turned out once more to be a crucial characteristic. This study implies that shape can play an important role in the way a product is perceived with the ability to highlight strong attributes of a product.

Another interesting finding is the correlation between liking of the product and gender of the participant. The results show that male participants were inclined to give higher answers on questions. The moderator results underset this

founding as there is a significant effect (p=.056) on the product liking (ß=-.260) when female participants answered questions of product liking. Additionally, male participants gave higher scores on both questions if soap was perceived as masculine or feminine: male participants perceived the soap to be more masculine as well as more feminine compared to female participants. Also the frequency of the use of soap is higher with male participants compared to female participants. More research about this topic can be interesting.

6.2.2 Practical implications

Certain aspects of this study can be implemented by marketers in the personal care branch. As the results show that blue soap results in a higher product liking compared to white soap it can be advised to marketers to use blue instead of white in their personal care products. Blue coloured soap was also seen as more hedonic than the white soap, so for products marketed as more hedonic it can also be advised to use blue. If marketers want to improve the perceived cleansing power of soap it can be advised to use a blue colour rather than a white colour. Furthermore, it is advised to use a sharp shape instead of round shape. Also the interaction of name*shape can be paid attention to with incongruent characteristics as the results show to increase the perceived cleansing power.
Soap is seen as a feminine product according to both literature (Gentry et. al, 1978) and this study, so it can be advised to make an extra effort for soap to appear masculine when focussing on a male demographic, in order to overcome this view.

6.3 Limitations and suggestions for further research

The strength of this research lies in the design of solid soap. Towards congruency there is a lot of research done, but in the specific domain of personal care products like soap it is quite under researched. Another point of interest was the

combination of name, shape and colour, which simultaneously tested the effects of sound symbolism.

However, this study also has several limitations. Firstly, the results do not show many main effects as most effects are only marginally significant or not significant at all. This can be caused by several reasons. For example the distribution of ages were not even (mostly young adults) and most of the participants were students. Another footnote is that most of the participants were not frequent users of soap and therefore had a low involvement with the product of solid soap. Next to this, most of the participants only had a short look at the soap and filled in the questionnaire quickly. Participants also commented that they had never been so serious about soap and their perception of this product. This low involvement and indifference towards the product could have led to the absence of main effects. For further research it could be interesting to focus more on proximity. The effect of the ability to actually touch the product can be tested. This is because touch, next to colour can act as a peripheral cue and eventually may lead to a positive or negative attitude towards the product (Mooy & Robben, 2002).

Another remarkable observation is that during the sessions participants commented that they found it hard to react to statements like “the soap has a mild effect” and “the soap is caring” because they were not allowed to actually test it. It was explained by the researcher that it was about the expectations of participants, but the participants still appeared to struggle with this type of questions. Participants were not allowed to touch the soap to prevent damage and mainly because the feel of the soap was not a part of this study. However, these specific questions can be re-written or the style of questioning could be changed in the future to avoid confusion among the participants. This could clear things up for the participants, followed by presumably other results. Another suggestion is to let people actually use the product. The last option would change the study but this can be interesting for further research.

One more notable thing variable “perception of femininity/masculinity”. Initially four questions were prepared (based on previous studies), but the relatively low Cronbach’s Alpha (.515) of the gender perception with statements as: “the name is: masculine/feminine”, “the shape is: masculine/feminine” was not high enough to have reliable results. This construct is therefore eventually based on 1 item questioning the overall soap and to which this was masculine-----feminine (scale from 1 till 5). For further research more items to measure the masculinity/femininity of a product need to be tested in advance.

Suggestions for further research

This study does not support the congruency theory and therefore additional research can be done to find out if it is just this study or that for personal care products the congruency between product attributes does not matter. Earlier research showed that congruency between product attributes caused positive outcomes (Becker et al., 2011; Van Rompay & Pruyn, 2011; Fenko et al. 2016). Next to this, it is advised to gain a better distribution between male/female participants. For this study 2/3rd of the participants were female and a fifty-fifty distribution might have given other results. It can also be recommended to focus on the distribution between different age groups. Now, most participants were in their twenties and to have more participants above this age can be of interest as soap is not particularly a product made for youngsters.

The collection of participants mostly found place in the region of Twente, Overijssel. It can be speculated that people in Twente are relatively more positive or negative towards personal care products. Therefore it is suggested to approach participants in other regions of the Netherlands to discover if the results are different. Another suggestion is to study the typography of the name. In this study a basic font was used (see Appendix 6). To make the research design even more complex an addition of this variation can be made: the feminine name could be

displayed in a feminine typography or an incongruent combination of name and font.

Additionally, more research can be done about personal care products and the difference between genders and their affection for it. As discussed above, the results tend to be higher for male participants so more research about this and the distinctions between female and male towards this branch can be interesting for both literature as well as the marketing business.

Lastly, more research in general can be done about this topic since most of the results are marginally significant. Thus, there are many opportunities for further research to expand the knowledge within personal care and the naming and designing of it.

6.4 Conclusion

Based on the findings of this study it is possible to answer the research question: '*To what extent does congruency between the name, shape and colour have an effect when it comes to consumer responses towards solid soap?'* The findings indicate that the theory of congruency does not apply to this study. No effects of sound symbolism were found either. Colour showed the most effects and can therefore be seen as a dominant product attribute. A significant effect of colour was found on product liking, hedonic (marginal) and cleansing power. The colour blue tend to create more product liking, more hedonism and higher perceived cleansing power instead of white. A significant effect of shape was found on the perception of cleansing power and it was found that the femininity or masculinity can be communicated by shape. However, the study does not show many main effects. A possible explanation for this is the low involvement with the product: most participants do not use soap on daily basis and during the sessions they were not extremely involved with the product as they were not allowed to touch it. The unexpected finding that incongruence between name*colour has a positive effect on cleansing power raises questions likewise about the lack of significant effects

of the congruency theory. Therefore, more research within the personal care branch is advised to find out if this is an incident or if there is a more fundamental reason behind this.

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APPENDIX 1: *Pre-test names: List of soap names & Q-sort*

Names of existing foreign soap brands

1. Aveeno (Aveeno, n.d.)
2. Kirk (Kirk, n.d.)
3. Speick (Speick, n.d.)
4. Phebo (Phebo, n.d.)
5. Moksa (Moksa, n.d.)
6. Reviva (Reviva, n.d.)
7. Sapolio (Sapolio, n.d.)
8. Faso (Faso, n.d.)
9. Liril (Liril, n.d.)
10. Proraso (Proraso, n.d.)
11. Biechele (Biechele, n.d.)
12. Boraxo (Boraxo, n.d.)
13. Swarfega (Swarfega, n.d.)
14. Lano (Lano, n.d.)

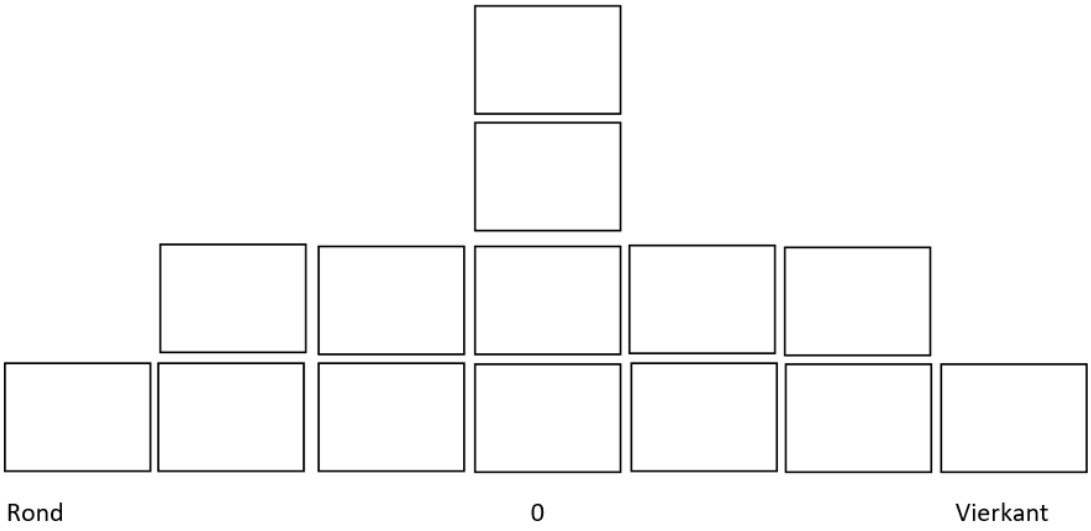
- *Informed consent for all the pre-tests* -

Geachte participant,

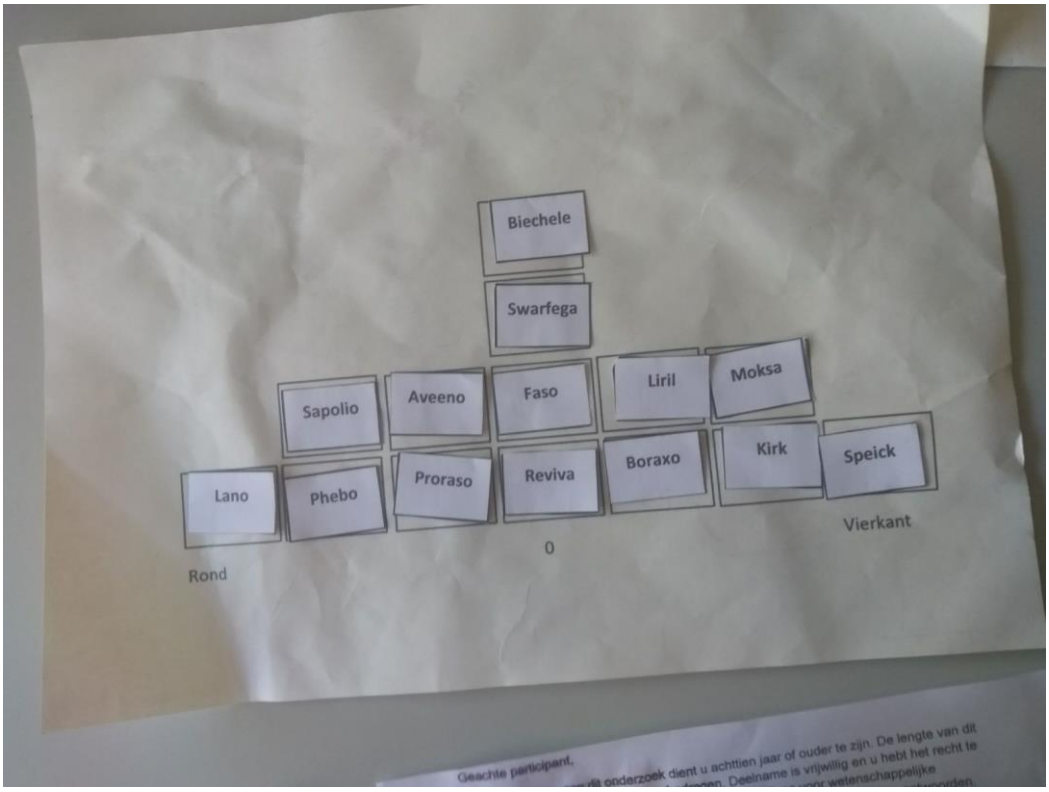
Om mee te doen aan dit onderzoek dient u achttien jaar of ouder te zijn. De lengte van dit onderzoek zal ongeveer 5 minuten bedragen. Deelname is vrijwillig en u hebt het recht te allen tijde te stoppen. Verder worden uw gegevens alleen voor wetenschappelijke doeleinden gebruikt en is het volledig anoniem. Er zijn geen goede of foute antwoorden. Bedankt voor u deelname aan dit onderzoek. Door te tekenen gaat u akkoord met deelname.

Datum: Handtekening:

Pre-test Q-sort: fourteen foreign soap names



Example of a filled in Q-sort



APPENDIX 2: *Pre-test names phase 2: Semantic differential*

Semantic differential pre-test of the three sharp and three soft words on different facets.

Kunt u aangeven in hoeverre u de naam: …….. vindt passen bij onderstaande kenmerken. U mag telkens maar 1 rondje aanvinken. Baseer uw mening op basis van de eerste ingeving van de naam. Er zijn geen goede of foute antwoorden.

	-2	-1	0	1	2	
goed	O	O	O	O	O	slecht
vierkant	O	O	O	O	O	rond
vrouwelijk	O	O	O	O	O	mannelijk
onderscheidend	O	O	O	O	O	standaard
mild	O	O	O	O	O	intense
blauw	O	O	O	O	O	wit
reinigend	O	O	O	O	O	niet reinigend

**The numbers -2, -1, 0, 1 & 2 are added afterwards by the researcher in favour of the SPSS input.*

The pre-test is scaled on a 5- point Likert scale from -2 till 2. The three most round and the three sharpest names are tested. Based on the descriptive statistics, and can be seen in Table 7, it seems that Lano is seen as most round (M=1.08; SD=.86), most good (M=-.62; SD=.96) and most mild (M=-.69; SD=.751). On the other hand, Sapolio is seen as most feminine (-.17; SD=1.12), most distinguish (M=-1.08; SD=.79) and most white (M=.42; SD= 1.24) and the second best round.

Speick seems to be seen as the most intense (M=.85; SD=1.14), Kirk is seen as most sharp (M=-1.08; SD= 0.90), most manly (M=1.50; SD=.52) and most blue (M=-.058; SD=1.00). Faso seems to be seen as most rinsing (M=-.54; SD=.66).

Table 7. Descriptive statistics of the six names of the semantic differential.

	Good **M (SD)**	Sharp **M (SD)**	Feminine **M (SD)**	Distinguish **M (SD)**	Mild **M (SD)**	Blue **M (SD)**	Rinsing **M (SD)**
Lano	-0.62 (0.961)	1.08 (0.862)	0.23 (1.481)	-0.15 (0.899)	-.69 (0.751)	-0.31 (1.251)	-.08 (1.038)
Speick	0.46 (1.266)	-1.08 (1.038)	1.08 (1.038)	-.08 (1.188)	0.85 (1.144)	-.46 (1.450)	.23 (1.166)
Sapolio	0.00 (1.348)	0.83 (1.030)	-0.17 (1.115)	-1.08 (0.793)	0.08 (1.311)	0.42 (1.240)	-.17 (0.937)
Kirk	0.08 (1.240)	-1.08 (0.900)	1.50 (0.522)	-0.25 (1.288)	0.67 (0.888)	-0.58 (0.996)	0.58 (0.793)
Moksa	0.08 (0.760)	-0.38 (1.121)	0.38 (1.044)	-0.38 (1.261)	0.54 (0.877)	0.15 (1.214)	0.00 (0.937)
Faso	0.23 (1.092)	0.38 (1.261)	0.23 (1.235)	-0.46 (1.050)	-0.08 (0.862)	-.38 (1.387)	-0.54 (0.660)

Results pre-tests names:

Grounded on the analysis Tests of Between Subjects the following items are significant: femininity (p=.004), shape (p=.000) and mild (p=.002). Because the focus in this research is primarily on shape and the femininity/masculinity, this will be set out more.

Based on the post hoc tests it can be concluded that the name Sapolio is seen as significantly more feminine than Kirk (p=0.007). Sapolio is also compared with the other names, and while it has the highest mean for femininity, a significant difference was not found. Considering the aspect ‘sharpness’ Sapolio differs significantly from Moksa (p=0.010), from Kirk (p=0.000) and Speick (p=0.000). Kirk is significant from Faso (p=0.003), Sapolio (0.000) and Lano (p=0.000) on sharpness.

APPENDIX 3: *Pre-test blue soaps cleansing power*

-Informed consent-

Hoe intens verwacht u de reiniging van deze zeep?

Van een schaal van 1 tot 10 (waarbij 1 niet intens is en 10 zeer intens)?

1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
O	O	O	O	O	O	O	O	O	O

Hoe intens verwacht u de geur van de zeep?

Van een schaal van 1 tot 10 (waarbij 1 niet intens is en 10 zeer intens)?

1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
O	O	O	O	O	O	O	O	O	O

Pre-test: 5 blue soaps, arranged in order of more saturated blue till less saturated blue

Results pre-tests blue soaps

Soap 1: Mean cleansing: 6,5 - Mean fragrances: 5,6

Soap 2: Mean cleansing: 6,3 - Mean fragrances: 5,5

Soap 3: Mean cleansing: 6,6 - Mean fragrances: 5,3

Soap 4: Mean cleansing: 6,8 - Mean fragrances: 6,2

Soap 5: Mean cleansing: 7,3 - Mean fragrances: 7,5

APPENDIX 4: *Questionnaire main study Dutch*

Geachte heer / mevrouw,

In het kader van mijn master Marketing (Universiteit Twente) doe ik onderzoek naar product ervaring. Het onderzoek zal ongeveer 5 tot 10 minuten van uw tijd in beslag nemen. Uw gegevens worden alleen voor wetenschappelijke doeleinden gebruikt en de antwoorden worden anoniem verwerkt. Er zijn geen goede of foute antwoorden.

Om mee te doen aan dit onderzoek dient u 18 jaar of ouder te zijn. Deelname is vrijwillig en u hebt het recht te allen tijde te stoppen. Door te tekenen gaat u akkoord met deelname aan dit onderzoek.

U krijgt zo dadelijk het prototype van een product te zien dat het plan heeft om te worden uitgebracht op de Nederlandse markt. Zou u het product goed willen observeren om er vervolgens een aantal vragen over te beantwoorden.

Toelichting:

- Lees de vragen en antwoorden goed door.
- Kruis het rondje aan dat het best uw mening weergeeft.
- Telkens dient er slechts 1 rondje aangekruist te worden.

Alvast hartelijk bedankt voor uw medewerking.

Lysanne Muijsert
Student Communication Studies
Universiteit Twente

Handtekening: Datum:

De eerste drie vragen gaan over zeep in het algemeen. Daarna zullen de vragen betrekking hebben op de getoonde zeep.

*1. Gebruikt u wel eens een **blokje** zeep?*

O Nee

O Ja

*2. Hoe vaak gebruikt u een **blokje** zeep?*

O Nooit/nauwelijks

O Maandelijks

O Wekelijks

O Een paar keer per week

O Dagelijks

3. Kunt u aangeven in hoeverre u het eens dan wel oneens bent met de volgende stellingen?

	Helemaal mee oneens	Mee oneens	Neutraal	Mee eens	Helemaal mee eens
1. Ik zie zeep als een mannelijk product	O	O	O	O	O
2. Ik zie zeep als een vrouwelijk product	O	O	O	O	O

4. In hoeverre vind u de volgende associaties bij de *getoonde* zeep passen?

aantrekkelijk	O	O	O	O	O	onaantrekkelijk
hard	O	O	O	O	O	zacht
onderscheidend	O	O	O	O	O	niet onderscheidend
teder	O	O	O	O	O	ruw
intens	O	O	O	O	O	mild
positief	O	O	O	O	O	negatief
vrouwelijk	O	O	O	O	O	mannelijk

5. Hoe beschouwt u deze zeep?

nuttig	O	O	O	O	O	nutteloos
onplezierig	O	O	O	O	O	plezierig
waardevol	O	O	O	O	O	waardeloos
leuk	O	O	O	O	O	verschrikkelijk
gunstig	O	O	O	O	O	nadelig
onaangenaam	O	O	O	O	O	aangenaam
werkzaam	O	O	O	O	O	niet werkzaam
niet prettig	O	O	O	O	O	prettig

	Mannelijk						Vrouwelijk
	1	2	3	4	5	6	7
De kleur is	O	O	O	O	O	O	O
De naam is	O	O	O	O	O	O	O
De vorm is	O	O	O	O	O	O	O

6. De volgende vragen gaan over de kenmerken van de zeep. Kunt u aangeven in hoeverre u het eens bent met de volgende stellingen?

	Helemaal mee oneens	Mee oneens	Neutraal	Mee eens	Helemaal mee eens
1. Ik vind de naam passend bij de zeep	O	O	O	O	O
2. Ik vind de kleur passend bij de zeep	O	O	O	O	O
3. Ik vind de vorm passend bij de zeep	O	O	O	O	O
4. De zeep ziet er kwalitatief goed uit	O	O	O	O	O

7. Kunt u aangeven in hoeverre u het eens dan wel oneens bent met de volgende stellingen?

	Helemaal mee oneens	Mee oneens	Neutraal	Mee eens	Helemaal mee eens
1. Ik ben positief over deze zeep	O	O	O	O	O
2. Deze zeep bevalt me	O	O	O	O	O
3. De zeep spreekt mij aan	O	O	O	O	O
4. De zeep is aantrekkelijk	O	O	O	O	O
5. Ik heb een goed gevoel over deze zeep	O	O	O	O	O
6. Ik verwacht dat deze zeep een positief effect heeft bij gebruik	O	O	O	O	O
7. De zeep past bij mijn wensen	O	O	O	O	O
8. De zeep laat op mij een positieve indruk achter	O	O	O	O	O

8. Kunt u aangeven in hoeverre u het eens bent met de volgende stellingen?

	Helemaal mee oneens	Mee oneens	Neutraal	Mee eens	Helemaal mee eens
1. Deze zeep heeft een sterk reinigende werking	O	O	O	O	O
2. De zeep heeft een milde werking	O	O	O	O	O
3. De zeep heeft een intense werking	O	O	O	O	O

4. De zeep is verzorgend	O	O	O	O	O

9. De volgende vragen gaan over koopintentie. Kunt u aangeven in hoeverre u het eens bent met de volgende stellingen?

	Helemaal mee oneens	Mee oneens	Neutraal	Mee eens	Helemaal mee eens
1. Ik zou overwegen deze zeep te kopen	O	O	O	O	O
2. Ik zou deze zeep kopen	O	O	O	O	O
3. Ik zou liever een andere zeep kopen	O	O	O	O	O
4. Ik zou deze zeep best willen uitproberen	O	O	O	O	O

10. Hoe intensief verwacht u de reiniging van de zeep? Op een schaal van 1 tot 10 (waarbij 1 niet intensief is en 10 zeer intensief)

1	2	3	4	5	6	7	8	9	10
O	O	O	O	O	O	O	O	O	O

11. Weet u wat de naam van de zeep was? Zo ja, vult u deze dan in.

O Nee

O Ja, …….

12. Kent u de naam Kirk/Sapolio al?

O Nee
O Ja

Zo ja, waar kent u de naam van?

……..

Tot slot nog drie algemene vragen

13. Wat is uw geslacht?

O Man O Vrouw

14. Wat is uw leeftijd?

……..

15. Wat is uw hoogst afgeronde opleiding? (Als u op dit moment bezig bent met een opleiding, vul dan deze in)

O Basisonderwijs
O MAVO/VMBO
O HAVO/VWO
O MBO
O HBO
O WO

Dit is het einde van mijn vragenlijst. Bedankt voor uw tijd en het invullen van de vragenlijst. U heeft mij erg geholpen!

APPENDIX 5: *Questionnaire main study English**

**Only the Dutch survey is used for this study, this English version is a translated example.*

Dear mister / miss,

In the context of my master 'Marketing' at the University of Twente, I perform a study about product experience. This survey exists of answering a couple of questions and will approximately take 5 to 10 minutes of your time. Furthermore, your information will only be used for scientific purposes and is completely anonymous. There are no right or wrong answers.

To be part of the survey you must be 18 or older. Participation is voluntary and you have the right to stop at any time.

In a moment you will be shown a prototype that is planned to be released on the Dutch market. Please observe it well, then answer a couple of questions.

Explanation:

- Read the questions and answers well
- Always cross the circle that applies most to you or reflects your opinion best
- With multiple choice questions always cross 1 answer option

Thank you in advance for your participation.

Lysanne Muijsert
Student Communication Studies
University of Twente

Signature: Date:

The first three questions are about soap in general. After that the questions will be related to the showed soap.

1. Do you sometimes use a piece of soap?

O No

O Yes

2. How often do you use a piece of soap?

O Never/barely

O Monthly

O Weekly

O A few times a week

O Daily

3. Could you indicate to what extent you agree or disagree with the following statements?

	Completely disagree	Disagree	Neutral	Agree	Completely agree
1. I perceive soap as a manly product	O	O	O	O	O
2. I perceive soap as a feminine product	O	O	O	O	O

4. To what extent do you think the following associations fit the *presented* soap?

attractive	O	O	O	O	O	unattractive
hard	O	O	O	O	O	soft
distinctive	O	O	O	O	O	not distinctive
tender	O	O	O	O	O	rough
intense	O	O	O	O	O	mild
positive	O	O	O	O	O	negative

feminine	O	O	O	O	O	manly

5. How do you consider this soap?

useful	O	O	O	O	O	useless
unpleasant	O	O	O	O	O	pleasant
valuable	O	O	O	O	O	worthless
nice	O	O	O	O	O	awful
beneficial	O	O	O	O	O	harmful
disagreeable	O	O	O	O	O	agreeable
effective	O	O	O	O	O	uneffective
pleasurable	O	O	O	O	O	unpleasurable

Masculine						Feminine
	1	2	3	4	5	6	7
The colour is	O	O	O	O	O	O	O
The name is	O	O	O	O	O	O	O
The shape is	O	O	O	O	O	O	O

6. The following questions are about the characteristics of this soap. Could you indicate to which extent you agree with following statements?

	Completely disagree	Disagree	Neutral	Agree	Completely agree
1. I think the name matches the soap	O	O	O	O	O
2. I think the colour matches the soap	O	O	O	O	O
3. I think the shape matches the soap	O	O	O	O	O
4. I think the soap	O	O	O	O	O

looks qualitatively
good

7. Can you indicate to what extent you agree or disagree with the following statements?

	Completely disagree	Disagree	Neutral	Agree	Completely agree
1. I am positive about this soap	O	O	O	O	O
2. I like the soap	O	O	O	O	O
3. The soap appeals to me	O	O	O	O	O
4. The soap is attractive	O	O	O	O	O
5. I have a positive feeling about this soap	O	O	O	O	O
6. I expect that the use of this soap has a positive effect	O	O	O	O	
7. The soap fits my wishes	O	O	O	O	O
8. The soap leaves a positive impression	O	O	O	O	O

8. The following questions are about your idea off soap. Could you indicate to what context you agree with the following statements?

	Completely disagree	Disagree	Neutral	Agree	Completely agree
1. The soap has a strong cleansing power	O	O	O	O	O
2. The soap has a mild effect	O	O	O	O	O

3. The soap has a intense effect	O	O	O	O	O
4. The soap is caring	O	O	O	O	O

9. The following questions are about purchase intention. Could you indicate to which extent you agree with the following statements?

	Completely disagree	disagree	Neutral	Agree	Completely agree
1.I would consider buying this soap	O	O	O	O	O
2. I would buy this soap	O	O	O	O	O
3. I would rather buy another soap	O	O	O	O	O
4. I would like to try this soap	O	O	O	O	O

10. How intensive do you expect the rinsing of the soap? On a scale from 1 to 10 (whereby 1 not intensive is and 10 extreme intensive)

1	2	3	4	5	6	7	8	9	10
O	O	O	O	O	O	O	O	O	O

11. Do you know what the name of the soap was? If yes, please fill in.

O Nee

O Ja, ……

12. Do you already know the name Kirk/Sapolio?

O No

O Yes

If yes, where do you know it from?

……

Finally three general closing questions

13. What is your gender?

O Man O Women

14. What is your age?

…….

15. What is your highest education? (If you are currently enrolled, please fill this in)

- O Elementary school
- O Preparatory secondary vocational education/ Lower general secondary education
- O School of higher general secondary education/ Pre-university education
- O Intermediate vocational education
- O Higher vocational education
- O University degrees

This is the end of the questionnaire. Thanks for your time and the answers. You helped me very much!

APPENDIX 6:

Used name cards for the main study

kirk

The four used soaps for the main research