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Helping Consumers Choose the Sustainable Option via Nudging

Sustainable by default in customisation tasks in the cosmetics industry

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Preface

After months of research, I am glad to share with you my master thesis as part of my Master in Business Administration at Radboud University Nijmegen, with a specialisation in Marketing.

First, I would like to thank all respondents for participating in my research. Without them, I would not have been able to gain all provided insights. It gave me joy to see how committed everyone was to help me.

Furthermore, I would like to express my sincere appreciation to my supervisor Prof. dr. Gerrit Antonides for his guidance during the writing of my thesis. His useful feedback helped me to improve the quality of my master thesis. In addition, I would like to thank my second examiner Prof. dr. Bas Hillebrand for the time and effort he has put into examining my Master thesis.

I hope you will read my master thesis with joy and positive expectations for the future.

Michelle Welvaarts

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Abstract

The EU has set many goals in order to reduce climate change. Still, sustainability must be improved in many industries. Since make-up is being used by 75% of all women, consumers could be influenced by means of nudging in order to choose more sustainable make-up in customisation tasks. More specifically, it has been investigated whether the presentation of products from left to right and using a default influence the sustainable choice being made. First, a pilot study has been done in order to get more background information on make-up choices. Second, an online, quantitative experiment has been executed amongst 330 respondents in which they made make-up product choices in a hypothetical buying process. Analysis of covariance showed that the left-right presentation does not but the default option does influence the sustainable choice made. By putting the default at the most sustainable option on a scale from least sustainable to most sustainable (or vice versa), the more sustainable option was more often chosen. Furthermore, higher educated people more often chose a sustainable make-up product. Lastly, both the importance people attached to sustainability and the perceived fair price (depending on which make-up product was being bought) influenced the sustainable choice made.

Content

1   Introduction

This research will look into the topic of sustainability in the cosmetics industry in the Netherlands. The research will describe how presenting the default option in product customisation tasks influences sustainable product choices and it will give recommendations about how to implement choice architecture, as part of nudging, in the cosmetics industry. This chapter will first give an example, then it will discuss some relevant topics and lastly the objective and research question will be shown.

Many products can nowadays be bought online. One of these products is personal make-up. In the (online) buying process, it could be possible for people to choose between more sustainable options and less sustainable options as part of their product choice. Several different options in terms of mass customisation could be thought of. Examples of such options, which people are able to choose themselves, are customising ingredients of the product, but also changing packaging. People could for example choose an allergy-friendly product, a vegan product, a non-animal tested product, all of these things combined in a product, or a product with none of these options. When offering these choices, it will be interesting to see whether people would choose the most sustainable option more easily when this option is set as default in the choice process of a purchase online, instead of setting the non-/less-sustainable option as default. The default option would be the option which has been selected as the standard (opt-out) in the buying process by a company (ING eZonomics, 2013). It is what a customer is given, if he or she does not make a choice on his or her own. At the moment, the cosmetics industry does not make much use of mass customisation. However, since this upcoming trend is of increasing importance, it would be good to also look at mass customisation in the cosmetics industry context (Addis & Holbrook, 2006).

This research has been designed in order to offer marketers and public policy makers more fine-tuned ways to stimulate sustainable consumption choices. In order to make clear what this research is about, some relevant concepts will first shortly be discussed: choice architecture, nudging, default, mass customisation, sustainability and make-up.

Choice architecture has been discovered as a way of nudging by several researchers (Thaler & Sunstein, 2008; Bernartzi et al., 2017; Velema et al., 2017). By changing the choice architecture, the context in which consumers make decisions may be changed without them knowing it, and this can make consumers behave in the desired way (Thaler & Sunstein, 2008). When nudging, the freedom to choose should be preserved according to the libertarian

paternalism view of Thaler and Sunstein (2008). Nudging is, according to them, a way of influencing people's behaviour in directions that will make their lives better.

Several ways of nudging can be used to influence people, such as the left-right continuum and the default setting. Research in the food context shows that it is possible to nudge consumers to choose healthier foods, by following a natural mental representation in the presentation of the product (Romero & Biswas, 2016; Blazevic & Belei, 2018). This natural mental representation would, in the food context, mean that it is important to present healthy food on the left and unhealthy food on the right hand of a continuum (for example in store shelves), because in the western world people are used to read from left to right. This research will be partly based on the results of Romero and Biswas (2016), who suggested extensions of their research. However, this research extends the idea of showing food products on a continuum, by showing several variants of one make-up product with different degrees of sustainability on the left-right continuum.

Apart from the left-right continuum Romero and Biswas (2016) suggested, this research will also take into account the default setting of a make-up product presentation. The default setting can be applied in many different ways, one of which is to indicate the default by a cross-mark in one of several multiple-choice boxes. To the best knowledge of this researcher, never before has the cosmetics industry been investigated regarding mental representations in combination with default options and nudging, and regarding mass customisation as part of the decision-making process. The design of toolkits for customisation (called configurators) plays a crucial role in determining the final outcome, i.e. whether a consumer will choose the sustainable option or not. The above factors have been investigated by first doing a pilot study and later executing a quantitative survey.

Currently, manufacturers provide "such a variety of products that nearly everyone can find what they want" (Alford et al., 2000, p. 99). During this mass customisation it is important to develop a relationship with personal involvement and trust between the consumer and the company (Addis & Holbrook, 2006). Mass customisation has become of great importance for companies and will thus be included in this research.

It is not only important to make the lives of people better (social impact of products), but to also look at environmental and economic impact of products, which are together the three types of capital relevant in the concept of (corporate) sustainability (Dyllick & Hockerts, 2002). The topic of sustainability has become very important (Luchs et al., 2012; Lélé, 1991;

Wood, 2003; G20, n.d.). According to Jamieson (1998) it even is important to go beyond sustainability in order to address the disorder regarding human relationship to nature. Environmental problems of the 21st century cannot be resolved through global governance alone (Wood, 2003). Results of Arnold et al. (2017, p. 351) for example encourage "the use of generic behaviour measures in efforts to understand and foster more ecological lifestyles."

Sustainability can be achieved in many fields. One such field is make-up as part of cosmetics. The Nederlandse Cosmetica Vereniging estimated the total consumption expenses on cosmetics in 2017 at over €2.6 billion in the Netherlands (NCV, 2018b). An important part of this is make-up. Approximately 75% of all women wear make-up and of these women, 80% wear it on a daily basis (Marktdata.nl, 2018). These results show the importance of make-up for especially women. Therefore, it has been decided that this research will focus on the make-up industry for women, as part of the cosmetics industry.

The discussion above shows that the concepts of choice architecture, nudging, mass customisation, sustainability and make-up have increased in importance in recent years. However, not a lot of knowledge has been gained regarding these key factors, which is a huge disadvantage for marketers. Therefore, it is important to do more research into these factors, as was already (partially) advised by Romero and Biswas (2016). The combination of make-up with these concepts has not yet been investigated. Additionally, the way of organising choice architecture in order to foster more sustainable consumption has not been investigated often, even though this is important for producers of make-up in order to meet sustainability demands. The combination of customisation with make-up is not yet well-explored within the industry. However, it is expected that the industry will increase its use of mass customisation. Given the increased importance of the above mentioned factors, and since the mentioned key factors have not been investigated in relation to each other before, it can be said that this research report will be scientifically relevant for marketers and public policy.

The objective of this report is: Researching how the horizontal continuum and the default option in make-up customisation tasks, influence consumers' sustainable product choices in this industry. The results will provide recommendations to the industry, marketers and public policy about how to help consumers to choose the sustainable option.

The research question of this report is: How do the horizontal continuum and the default option in make-up customisation tasks, influence consumers' sustainable product choices in this industry in the Netherlands?

Firstly, Chapter 2 will give a theoretical background of this report, with an overview of the relevant literature related to the topic of interest, a conceptual framework and derived hypotheses. Chapter 3 will show the methodology of this report. The adopted methodological approach will be explained and a detailed account of how the research was conducted, including sample, data collection, data analysis, and research ethics, will be given. Chapter 4 will give the results of the research and Chapter 5 will then give both a conclusion and discussion regarding the results, including an interpretation of the results, the contribution of the results to existing knowledge, practical and managerial implications, a critical reflection on the limitations of the research and directions for further research.

2   Theoretical background

Several key factors in the choice behaviour of consumers can be identified in this research. These are: make-up, sustainability (economic, social and environmental), mass customisation, discrepancy of attitude and behaviour, price and choice architecture (default and horizontal left-right continuum). These factors will be elaborated upon in this chapter. This chapter will conclude with a conceptual model that describes the choice process, including its relevant variables and proposed relationships between variables.

Make-up

As discussed in Chapter 1, this research will look into the make-up industry (as part of the cosmetics industry). The Nederlandse Cosmetica Vereniging (NCV, 2018b) states that cosmetics entail bath and shower products, make-up, deodorant, perfume, mouth products, sun products, etc. NCV estimated the total consumption expenses in 2017 at over €2.6 billion in the Netherlands (an increase of 5.7% compared to 2012 (NCV, 2014)). Most of this money has been spent at skin care, fragrances and decorative cosmetics (make-up) (NCV, 2018c). Approximately 75% of all women wear make-up and of these women, 80% wear it on a daily basis (Marktdata.nl, 2018). In total, 98% of all women in the Netherlands under the age of 30 years wear make-up. Older women wear less make-up then younger women (61% of the women of 60 years or older wear make-up). In total, €369.6 million was spent on make-up in 2017. These results show the importance of make-up for especially women. For men, make-up is less important. Less men wear it and they use it less often (Daily Mail, 2013).

There are several make-up products, which can be used for the eyes, lips, complexion and nails (NCV, 2018d). Women wear many different kinds of products; especially mascara, lipstick and eyeshadow are popular (marktdata.nl, 2018). Many different make-up products exist per category (NCV, 2018d). Foundations all have a different kind of undertone, lipsticks exist in many different colours of red, mascaras give both less and more intense results, etc.

Ever since the Egyptians used make-up to decorate their eyes and make them darker 4000 years ago, people, and especially women, have been wearing make-up. Reasons for wearing make-up are, according to Cash and Cash (1982), to be more self-confident and sociable when wearing make-up. In 2010, Cash did a related study, this time among thirty-eight American female college students, and again found "more positive body-image cognitions and affect in the cosmetics-present than the cosmetics-absent condition" (Cash et al., 2010, p. 349). The authors showed that people feel better about themselves, when wearing

make-up. The more makeup they wear, the greater the body-image differences between the cosmetics-present and cosmetics-absent conditions. When women judge each other, they judge the present and absent conditions equally. However, men judge the cosmetics-absent conditions of women less favourably. Lastly, attractiveness evokes favourable attitudes (Bloemer, 2018a). An attractive person, especially in the context of communication sources, evokes more attention, is perceived as more believable and is seen as more interesting (Bloemer, 2018b).

Marktdata.nl (2018) also discusses the fact that women often wear make-up in order to make themselves look prettier. The organisation, however, also says that not many women say feeling insecure without wearing make-up. Often women say that wearing make-up has become a habit. It is unclear whether especially the hygienic or motivator factors of Herzberg are being used by people when choosing to wear make-up (or not) (Herzberg et al., 1959). When make-up is considered as a hygienic factor (a dissatisfier), it could be that women feel particularly satisfied when wearing make-up and dissatisfied when not wearing make-up. For example, women may wear make-up to mask their insecurity. When make-up is considered as a motivator factor (a satisfier), then not wearing make-up will not have an effect, however, wearing make-up will result in high motivation, high satisfaction and strong commitment. An example of this is women wearing make-up because they want to make themselves look prettier, and not because they want to mask flaws.

An important part of make-up is sustainability. A good example of a make-up company applying sustainability in its management is The Body Shop, which has set 14 goals in order to enrich people, its products and the planet. Several studies have been done regarding this company (The Body Shop, 2018; Livesey & Kearins, 2002; Roddick, 1991; Roome, 1998; Peatty, 2001). Nowadays, companies (in the make-up industry) are increasingly trying to take part in sustainable development by implementing sustainable practices in their supply chain, packaging and ingredients (Airola, n.d.; NCV, 2018a). The next paragraph will elaborate more on the topic of sustainability.

Sustainability

Sustainability is a concept which encompasses many different things. It consists of three pillars, which are the social, economic and environmental pillar (Dyllick & Hockerts, 2002; Charter & Tischner, 2017). Sustainability is about environmental aspects, animal friendliness, fair trade, vegan products, fair wages, etc. When choosing a sustainable product, consumers

often base themselves on conscious and deliberative decisions (Hanss & Böhm, 2012). Sustainability can be found in all kinds of products, and thus also in make-up products (Cervellon & Carey, 2011). However, it is not always clear what the green labels given to (make-up) products mean, which makes it hard to make a choice between products (Cervellon & Carey, 2011; Hanss & Böhm, 2011; AD, 2016). In order to clarify the concept of sustainability, this section will first explain the importance of the overall concept of sustainability and will then elaborate on the three pillars of sustainability, including an explanation of how these three pillars of sustainability come into play regarding make-up.

Sustainability is claimed to be important by both consumers and companies (Hussain, 2000; Barbulova et al., 2015). In February 2019, approximately 15,000 Dutch students went to The Hague in order to strike for a better climate (AD, 2019a). The students wanted their government to reduce CO_2 emissions in order to provide the younger generations with a better future. These climate truants, as they are called, are supported by several organisations, such as Youth for Climate (as part of Milieudefensie), Greenpeace, and Urgenda (Trouw, 2019), and both influence and are influenced by many other students in Europe (NOS, 2019a).

In a growing population as there is right now, increasing to 9 billion people in 2040, it is impossible to sustain current patterns of development and consumption (of food) (Charter & Tischner, 2017). This increase can, at the moment, not be met. Since climate change has a major impact on the world, it is possible that the amount of agricultural ground will reduce, leading to an even larger discrepancy between supply and demand.

Climate change and the earth's temperature have been immensely influenced by humans (European Commission, n.d.). Several actions, including burning fossil fuels, cutting down rainforests and farming livestock, have had a huge impact on the earth by adding enormous amounts of greenhouse gases. These greenhouse gases tap the sun's heat and stop it from leaking back into space. CO_2 is an important gas responsible for global warming.

An increase of 2 degrees Celsius compared to the year 1850 could cause dangerous and possibly catastrophic changes in the global environment, such as worsened storms, heat waves, floods, and droughts (NRDC, 2016). In the Netherlands a temperature increase could result in the disappearance of whole provinces (NEMO Kennislink, 2012; KNMI, n.d.). The later CO_2 emissions are reduced, the harder it will be to limit global warming (NOS, 2019b). It is important to not only look at sustainability as a remote future concern, but to take action immediately in order to avoid problems (Charter & Tischner, 2017). Therefore, the

Government of the Netherlands and the European Union have set many goals in order to reduce climate change (NOS, 2019c). They acknowledge the problem. However, according to Prime Minister Rutte, it is impossible to suddenly reduce all CO_2 emissions (AD, 2019b).

As can be seen, sustainability is especially about the environmental pillar. However, the social and economical pillar also are of importance (Dyllick & Hockerts, 2002; Charter & Tischner, 2017). The Environmental Protection Agency (n.d.) argued that to pursue sustainability is: "to create and maintain the conditions under which humans and nature exist in productive harmony, that permit fulfilling the social, economic and other requirements of present and future generations." As elaborated upon above, change in these three pillars is needed in order to avoid serious problems in the future (Charter & Tischner, 2017). All three pillars need to be satisfied and balanced (Charter & Tischner, 2017; Dyllick & Hockerts, 2002). Sustainability will in this research be defined as: "Combining the three pillars social, economy and environment, in order to improve the combined, diverse effects of these pillars." The three pillars will be further elaborated upon.

Economic pillar

Firstly, the economic pillar, which captures both financial and management accounting (Dyllick & Hockerts, 2002). Regarding businesses it is about "financial (i.e. equity, debt), tangible (i.e. machinery, land, stocks) and intangible capital (i.e. reputation, inventions, know-how, organisational routines)" (Dyllick & Hockerts, 2002, p. 133). According to Frontstream (2013), the idea of the economic pillar is: "to promote the use of those resources in an efficient and responsible way that provides long-term benefits and established profitability."

According to Hüttel et al. (2018, p. 827), for consumers, "economically sustainable consumption is related to the consumer's decision to not buy products and the disposition to forgo specific purchases." Reasons for consumers for buying economically sustainable products are: saving motives, waste concerns, and avoidance motivations (Hüttel et al., 2018). Meanwhile, economically non-sustainable products are purchased because of wanting to attain overall life goals. These unneeded and unaffordable products are associated by consumers with instant happiness and future well-being.

When talking about sustainability, the economical pillar is seen as less important than the social and environmental pillar (Hanss & Böhm, 2012). However, people do find fair payment of producers of importance. Additionally, people do not like wasting products. Therefore, preservatives in, for example, sunscreens could be of importance for them.

Social pillar

It is important to also take care of the social pillar of sustainability. The social pillar is about balancing the individual with the group needs (Frontstream, 2013). Additionally, animal-friendliness is seen as of importance (The Body Shop, 2018; Hanss & Böhm, 2012).

Firstly, the individual part of this pillar. Reasons for purchasing sustainable products are especially egocentric and related to health (Cervellon & Carey, 2011; Nielsen, 2018). Other reasons are self-expression, status display, and a "license to sin", by which people try to relieve the guilt of non-environmentally-friendly behaviour (Cervellon & Carey, 2011).

Often, dangerous chemical ingredients are used in make-up products (Csorba & Boglea, 2011). These do not exist in natural, but only in synthetic cosmetics. However, not all synthetic ingredients have a negative effect on skin health (The Body Shop, n.d.-a). These can even be better, safer or more environmentally friendly than natural ingredients. It could, for example, be that natural ingredients contain residual pesticide. Synthetic ingredients can also help the consistency, quality and performance of a product on the longer term. Both products and people can, for example, be protected by preservatives in sunscreens.

As told, it is important to balance individual needs with group needs. Regarding these group needs, value must be added to communities (Dyllick & Hockerts, 2002). Stakeholders must be supported. It could be that companies only take care of their employees and make sure that they work under good conditions and are offered good wages. However, a company could also take it a few steps further and even offer communities in which their businesses operate a better future. Perhaps the business provides whole families in their basic needs, such as food, housing, education and healthcare. Many possibilities exist for companies.

Lastly, humane animal treatment is seen as important (Hanss & Böhm, 2012; The Body Shop, 2018). Since 2013, animal-testing for cosmetics has been forbidden in the European Union (PETA, n.d.). However, still some make-up contains animal products. Using vegan products could take care of this part of the social pillar.

Environmental pillar

The last pillar is the environmental pillar. There are two types of natural capital: natural resources (renewable and non-renewable) and ecosystem services (e.g. climate stabilisation and reproduction of plants and animals) (Dyllick & Hockerts, 2002). According to Hüttel et al. (2018), valuable resources are depleted by all types of consumption. People live in an

infinite world; therefore, it is of importance to consume resources at a rate below the natural reproduction or below the development of substitutes. It is important for people and organisations to reduce their environmental impact (Frontstream, 2013).

Regarding the environmental pillar, people place high emphasis on recyclability of the packaging, low energy use and low carbon dioxide emissions during production and shipping (Hanss & Böhm, 2012). People find it important that products are produced in an environmentally-friendly way and their home appliances must be energy-efficient.

However, the environmental pillar is not a priority for consumers when talking about green beauty products (Cervellon & Carey, 2011; Nielsen, 2018). Not all make-up products are environmentally friendly (Natural Products Insider, 2016). Indeed, consumers know that, for example, palm oil and polyethylene beads have a bad impact on the environment. However, more bad ingredients exist. Some sunscreen chemicals, for example, destroy coral reef and a lot of plastics leak into the ocean. Still, companies are increasingly aware of their carbon footprint and water impact (Natural Products Insider, 2016).

Lastly, as discussed, some synthetic ingredients can be more environmentally friendly than natural ingredients (The Body Shop, n.d.-a). Thus, it could be that ingredients of natural origin are not sustainable, which is the case when these ingredients are not self-generating and abundant (as for palm oil), or when these natural ingredients contain residual pesticide.

Sustainability criteria

When again combining the three pillars of sustainability, several criteria are seen as relevant. According to the pre-survey results of Labuschagne et al. (2005), who investigated operational (project) sustainability assessment, these criteria are (from most to least relevant): taking care of the own company (financial health, economic performance, potential, financial benefits and trading opportunities), resources (air, water, land, minerals and energy), personnel (employment stability and practices, health and safety, and capacity development), external population (human, productive and community capital) and stakeholder participation (information provision and stakeholder influence). It would be possible to judge the (for organisations) most relevant criteria as the criteria which are seen as least sustainable, and the (for organisations) least relevant criteria as the criteria seen as most sustainable. It is important to adapt the above criteria to the make-up industry and to add some criteria particularly relevant for this industry (such as animal friendliness). By using mass customisation, consumers can even choose the criteria they themselves find relevant.

Mass customisation

When using mass customisation, companies offer "such a variety of products that nearly everyone can find what they want" (Alford et al., 2000, p. 99). Individual demand patterns are met individually, and these individually customised goods and services are offered with mass production efficiency (Bardakci & Whitelock, 2003; Piller & Müller, 2004). There is, however, a fixed solution space, restricting customisation options (Piller & Müller, 2004). Companies should only let consumers customise those parts of the products which are valued and seen as vital by the consumers. Aspects of minor importance for consumers should not be made available for customisation but should be made constant in a fixed solution space.

Based on the above (Alford et al., 2000, p. 99; Bardakci & Whitelock, 2003; Piller & Müller, 2004), the definition given to mass customisation in this research is: "Offering customers the opportunity to take part in a production process by designing their own product, while offering them several options and keeping mass production efficiency in mind." An important note is that mass customisation is not the same as co-creation (Prahalad & Ramaswamy, 2004). The latter is especially focused on creating products by a company in collaboration with some consumers in order to be able to sell the products to all other consumers, whereas in mass customisation a product is being made by a company and a consumer, just for that one consumer.

Reasons for consumers to engage in mass customisation are, amongst others, curiosity about the customisation concept and realisation of benefits (Piller & Müller, 2004). Also, customisation offers the opportunity to participate in the design and development of their own product (Bardakci & Whitelock, 2003). This leads to greater satisfaction with the performance of the product and thus greater customer loyalty. When consumer needs are unique and when consumers themselves are primarily innovative, customisation sensitivity is greater. Additionally, the bigger the sacrifice gap, the greater product customisation sensitivity will be. Bardakci and Whitelock (2003, p. 466) define the sacrifice gap as: the difference "between the desired product and available products in the market in terms of product features."

For consumers to be willing to pay more for mass customisation, it is important that (expected) returns exceed (expected) costs (Piller & Müller, 2004). Regarding customised shoes, people accept to pay a premium of between 10 and 30 percent for mass customisation, above the average price. According to Bardakci and Whitelock, (2003), consumers are not seeking low prices, but the best value for their money.

Despite these positive findings, also negative consequences exist. This endless choice stream of mass customisation, competing for attention and money of consumers, can result in over-stimulation (Walker, 2006). Everything is different, however, most products still contain some familiarity. This could engender numbness, passivity, disillusionment or cynicism. Additionally, mass production efficiency must be taken into account in mass customisation for avoiding huge expenses (Bardakci & Whitelock, 2003; Piller & Müller, 2004).

Regarding cosmetics, not that much has been produced in terms of mass customisation. Some companies appear to use mass customisation, but most have not applied it yet (Cosmetics design-europe.com, 2017). However, since the growing importance of this topic, it is important to look into the possible implications of using mass customisation in the cosmetics industry (Addis & Holbrook, 2006; Cosmetics design-europe.com, 2017). An example of a make-up company using mass customisation is Giella (n.d.). This company offers its consumers for example to choose the colour, formula (matte, cream and sheer) and aroma of their own customised lipstick. Other companies offering customised make-up are, amongst others: Trinny London, Eyeko and Cosmetics à la Carte (Harpers Bazaar, 2017).

Apart from the above choices in customisation, such as colour and formula, it could also be possible to choose between several gradations of sustainability, such as those of the previously discussed research of Labuschagne et al. (2005) (Mass Customisation, n.d.). This makes the topic of mass customisation important regarding this research.

Discrepancy of attitude and behaviour

According to Hussain (2000, p. 77): "Most consumers claim to consider sustainability important, but this does not necessary translate into systematic purchase of ethical labelled products." This discrepancy between attitude and behaviour is one of the main problems in the area of sustainable consumption (Van Dam & De Jonge, 2015). Many more authors agree with these inconsistencies between citizen's environmental attitudes and behaviour, between willingness to buy and actual purchasing behaviour (Diekmann & Preisendörfer, 1998; Padel & Foster, 2005). Attitudinal components explain only 39 percent of environmental behaviour (Grob, 1995). Therefore, caution in a study is important (Padel & Foster, 2005).

Grob (1995) argues that mainly personal-philosophical values and emotions result in environmental behaviour, while Padel and Foster (2005) say that consumers opt for convenience more often than for value-laden choices. Diekmann and Preisendörfer (1998) add to this, that low-cost situations strengthen the attitude-behaviour relationship. Padel and

Foster (2005) agree with this: price remains a barrier for many consumers, at least in the food industry. This barrier could be reduced, if consumers would be made more aware of the reasons for the higher price and of the value for money. It is expected that price also could be a barrier in the make-up industry.

Price

It could be that a trade-off exists between price and sustainability. Romero and Biswas (2016) saw that price can be an important influencer of making sustainable choices. Therefore they suggested an extension of their research regarding price. Sustainable products often contain a higher price than less-sustainable products (Ingenbleek, 2015). This is because costs of sustainable initiatives must be accounted for (Choi & Ng, 2011). 25% Of consumers who don't buy sustainable products mention the (unaffordable) price of the products (BNR, 2018; NOS, 2019d). The average price premium consumers are willing to pay for a product with a sustainable label is 10% (Pelsmacker et al., 2005).

Still, research suggests that 36% of all Dutch consumers are willing to pay more for a sustainable product (duuurzaam-ondernemen.nl, 2018). However, because of the attitude-behaviour relationship it is not sure whether they actually show the behaviour of buying the sustainable product (Hussain, 2000; Van Dam & De Jonge, 2015; Our World, 2018; Pelsmacker et al., 2005; NOS, 2019d). Especially for products with a high environmental impact, and where sustainability has direct advantages for the consumer, many consumers find sustainable products important (around 50% of the Dutch consumers) (duurzaam-ondernemen.nl, 2018). People also claim to be willing to pay more, since they overall are more positive regarding sustainability, because they want to consume without a feeling of guilt, because of the increased quality of sustainable products, and because of the economic growth which gives consumers more financial capabilities (duuurzaam-ondernemen.nl, 2018).

According to Prakash (2002), consumers are willing to pay more in order to avoid buying less-than-average sustainable products. However, they are not willing to pay premium prices for more-than-average sustainable products. Products can be shown to be less-than-sustainable by attaching (non-sustainability) labels to these products (Van Dam & De Jonge, 2015).

When people do not buy sustainable products, they often do this because of the higher price or because they do not have enough information about sustainability (Consumentenbond, 2018; NOS, 2019d). Also, Van Loo et al. (2015), who did research into

sustainability labels on coffee, state that an explanation of the sustainable choice consumers make is very important for these consumers. This can, according to Van Loo et al. (2015), be done by drawing visual attention to sustainability labels. Grunert (2011) argues that it is important to label a product as being sustainable; to make sure that consumers understand what this label actually stands for; to let consumers find the label credible; to let the label be a reliable help in making sustainable choices; and to help consumers have enough motivation for making the sustainable choice, even when having time-pressure and being in an information-overloaded environment. Lastly, Meise et al. (2014) say that in order for consumers to be willing to pay a higher price for a sustainable product, compared to a less sustainable product, information about sustainability must be included with the product.

According to Choi and Ng (2011, p. 269), "consumers do not respond favourably to low prices when they have information about the firm's poor environmental sustainability." Having a low price does not compensate for having a low level of (environmental) sustainability. This especially holds for environmental, compared to economic sustainability, since this is more harmful to the evaluation of firms by consumers. Concluding, it is important for a sustainable company to deliver more value to a customer, in order to induce the customer to pay more for a sustainable product. The price should be fair. Especially environmental, compared to economic sustainability appears to be harmful to the evaluation of firms by consumers. It is important to know how important consumers rate sustainability regarding make-up products, to what extent they find a fair price important, and how the combination of these two factors influences the actual choices they make regarding the sustainability degree of a product and its relating price.

Based on the above, the following hypothesis has been stated:

H1: The importance of sustainability in relation to a perceived fair price has a positive effect on the sustainable choice.

Choice architecture

As explained in Chapter 1, choice architecture is an important way of nudging, as part of influencing consumer choice (Thaler & Sunstein, 2008; Bernartzi et al., 2017; Velema et al., 2017). According to the Cambridge dictionary (n.d.), "to influence" means: "To affect or change how someone or something develops, behaves or thinks." Nudging is a way of influencing (Thaler and Sunstein, 2008). Bernartzi et al. (2017, p. 1041) also mention that nudging should be done "without forbidding any options or significantly changing […]

economic incentives" of people. Furthermore, Velema et al. (2017, p. 237) define nudging as "changing the presentation of choice options in a way that it makes the desired case […] the easy, automatic and default option, without forbidding any options."

In this research, the following definition of nudging will be used, based on Thaler and Sunstein (2008), Bernartzi et al. (2017) and Velema et al. (2017): "Changing the choice architecture in a decision making process in order to make people (unconsciously) behave in the desired way, without forbidding any options and while providing the freedom to choose." Choice architecture has, based on these authors, been defined as: "The way choice options are presented in their context." Important concepts in choice architecture are the default option and using a horizontal left-right continuum in the presentation of product features. These will especially be further elaborated upon.

The default option

All consumers have a reference point against which they evaluate attributes (Van Dam & De Jonge, 2015). For many consumers, mainstream, unsustainable products serve as the reference point. In order to let consumers choose the more sustainable option, one way to influence them is by using a reference point. Setting the sustainable product as reference category will result in consumers feeling a loss when buying the unsustainable product. This will especially be the case when mainstream products are being labelled as having sustainable attributes. The less sustainable option will be seen as a poorer choice. Especially, when an option is less sustainable than the mainstream option, a negative attitude will be yielded. This is the case, since a loss has greater impact on preferences than a gain (Tversky & Kahneman, 1991). Therefore, the more sustainable option will yield less positive attitudes, preferences and choice if the mainstream option is unsustainable (Van Dam & De Jonge, 2015).

The default option could be seen as the reference point to which people evaluate other products. In this research, the opt-out default option has been used, since by using a default option, opt-out rather than opt-in is being used (Frederiks et al., 2015). The opt-out default option has been defined by Frederiks et al. (2015, p. 1388) as: "all customers are automatically enrolled in the program/initiative and disinterested customers must actively withdraw from participating." When using opt-out, consumers are expected to sooner choose the default option (compared to other options). Sunstein and Reisch (2013, p. 398) mention: "Default rules establish what happens when individuals do not do anything at all."

Concludingly, the default option in this research is: "The opt-out set reference point to which people evaluate other products."

Frederiks et al. (2015) mention that people tend to stick to default settings, especially when the amount or complexity of information increases. Even though alternatives may yield better outcomes, people still tend to resist change. The default option saves people time, is often viewed as the best option, and as a recommendation of the provider. The default option could also be the first available option or solution that suffices, or satisfies the minimum requirements (Frederiks et al., 2015).

Based on the above, if the default option is set to the most sustainable option, it is expected that people will sooner choose this option (Van Dam & De Jonge, 2015; Frederiks et al., 2015; Sunstein & Reisch, 2013). Green defaults can have major consequences for the environment, according to Sunstein and Reisch (2013). "The transition into conscious adoption of the default design may […] establish long-term changes in consumer behaviour" (Hale, 2018, p. 248).

Horizontal left-right continuum

As already described, it is possible to nudge consumers to choose healthier foods, by following a natural mental representation in the presentation of the product (Romero & Biswas, 2016; Blazevic & Belei, 2018). Sustainability could be divided in five degrees of sustainability from least to most sustainable. In the natural mental representation regarding the make-up context, the most sustainable make-up options could be presented on the left of a horizontal continuum and the least sustainable make-up options on the right hand of a continuum (or vice versa). A continuum thus is about the presentation of products or options. A continuum could be a store shelf, at which products are displayed, or horizontal options in an online buying process, as Figure 1 shows.

A way of presenting the options has been described by Casasanto (2009). He explained that options are often placed from bad on the left to good on the right of a horizontal continuum. This is especially done in countries where people read from left to right (Spalek & Hammad, 2005). A bias exists in the direction that participant's language is read. This left (least sustainable) to right (most sustainable) continuum of Casasanto (2009) is different from the most-to-least sustainable continuum previously discussed but could still have an effect on the choices people make.

Romero and Biswas (2016, p. 103) see the horizontal left-to-right continuum as "lateral display patterns". In this research, the left-right continuum will be seen as placing the most sustainable product on the left of the continuum and the least sustainable product on the right of the continuum (sustainable-left, unsustainable-right). The right-left continuum will be seen as placing the least sustainable product on the left of the continuum and the most sustainable product on the right of the continuum (unsustainable-left, sustainable-right).

Combination of default and horizontal left-right continuum

It is possible to use a choice architecture in which the most sustainable option is being put on the left of a (horizontal) continuum as default option, and to put the other options from most to least sustainable from left to right (or vice versa).

It is important to explain the default settings of Figure 1, which will be used in an experiment in this research (this will be further elaborated upon in Chapter 3). The default setting of this research has been based on Johnson et al. (2002). For this research, the opt-out, "with default" setting is used. Several boxes on a horizontal continuum can be seen and one of the boxes is bold (containing a colour or image as in the upper-left corner of Figure 1) and sometimes contains a check mark (when the box is white in the middle, as in the upper-right corner of Figure 1). Participants of the experiment can adjust the bold box or the check mark to another box at their own discretion, depending on which is more suitable for them.

Figure 1. Illustration of a default setting

When the "without default" setting is in place, opt-in is being used. All boxes have an equal size (no bold box and no check mark in place) and participants can decide to choose an option by clicking at one of the boxes, after which a check mark appears or after which the box turns bold. The "without default" setting can be seen in the two settings below (Figure 1).

Other forms of choice architecture

Another way of nudging is to put the default option at eye-height (Thorndike et al., 2012; Velema et al., 2017). When increasing the visibility and convenience of products, sales

will be improved, according to Thorndike et al. (2012). These authors further argue that giving colours to products (colour-coding), nudges product choice. Attaching (red and) green colours to (non-) sustainable products, increases the choice of sustainable, green products.

Sentences to target normative behaviour could also be added to the product options, for example: "Most people have a preference for product X" (Bloemer, 2018a). People often find it important how others think about them. Therefore, they could be influenced by sentences which refer to what the majority of people (is thought to) think. It is also possible to add narratives to the product options (Winterbottom et al., 2008). This influences decision making more than in case of no additional information. Hoyer et al. (2016) agree: Consumers' attention could be attracted by making the stimulus personally relevant by using narratives.

Hypotheses regarding choice architecture

Based on the above literature, several hypotheses have been formulated. In order to not make the scope of this research too extensive, it has been chosen to include two forms of choice architecture: using the default option and placing sustainability options on a left-right horizontal continuum. This last one consists of two options: most to least sustainable (left-right) and least to most sustainable (right-left).

> *H2a: Using or not using the default moderates the positive, combined trade-off effect of the importance of sustainability in relation to a perceived fair price, on the sustainable choice.*

> *H2b: Putting the options of most sustainable to least sustainable horizontally from left to right versus right to left on a continuum moderates the positive, combined trade-off effect of the importance of sustainability in relation to a perceived fair price, on the sustainable choice.*

> *H2c: The combined effect of using both the default and putting the options most sustainable to least sustainable horizontally from left to right on a continuum moderates the positive, combined trade-off effect of the importance of sustainability in relation to a perceived fair price, on the sustainable choice more strongly, than when this combined effect is absent.*

Conceptual model and hypotheses

Concluding, Figure 2 shows the conceptual model of this research, which has been based on the formulated hypotheses.

Trade-off

Importance
Sustainability
product

Importance
perceived
fair price

Moderators
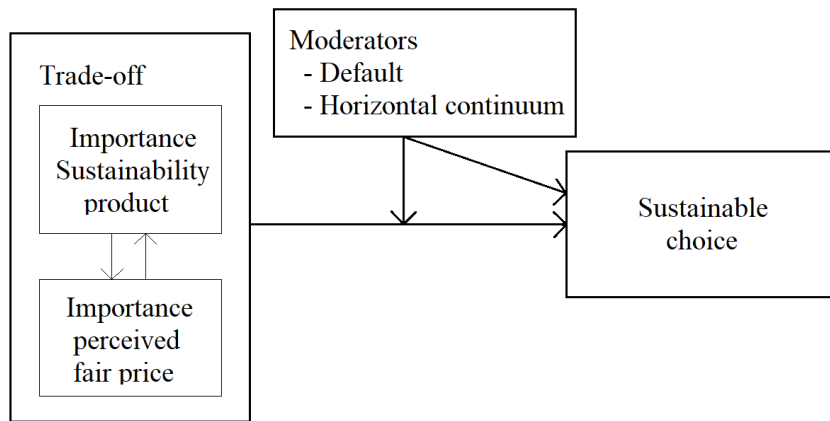- Default
- Horizontal continuum

Sustainable
choice

Figure 2. Conceptual model

It is expected that the exogenous variable trade-off between importance of sustainability product, and importance perceived fair price has a direct effect on the endogenous variable sustainable choice. The meaning of the variable "sustainable choice" is: making a choice regarding the preferred degree of sustainability and thus indirectly which price the product should contain. A higher degree of sustainability of a make-up product implies a higher price. Both the importance people attach to the sustainability degree of a product and the importance people attach to the perceived fair price of a product, influence the choice people make regarding the sustainability of a product. If the consumer finds the degree of sustainability of a product more (less) important, or if he or she considers the price of the product as (not) fair, then a more (less) sustainable choice will be made. Concludingly, the importance people attach to the sustainability of a product and the importance people attach to a perceived fair price will have a trade-off effect on the sustainable choice consumers make.

It is expected that "choice architecture" moderates the effect. This moderator includes two forms of choice architecture, which are the default which could be set into place or not (respectively opt-out and opt-in), and the horizontal presentation of sustainability options on a continuum (most to least sustainable and least to most sustainable). It is expected that putting an option into default will influence the choice people make into choosing that default option. It is also hypothesised that putting the options from most to least sustainable, will moderate people's sustainable choice. The combined effect of the default and the order of most to least sustainable is expected to have the highest effect on the choices people make. Lastly, it is expected that all these effects (separately and combined) also influence the relationship between the trade-off effect of the importance of sustainability in relation to a perceived fair price on the sustainable choice consumers make.

3 Methodology

Both a pilot study and an online, quantitative experiment have been done. This chapter will first explain the method more in-depth. Then the sample, data sources and measures will be described, and the data analysis procedure will be elaborated upon. Lastly, the limitations of the research project and the way of addressing research ethics have been considered.

Pilot study

Design

This section will first broadly explain how the pilot study has been done, whereas later sections will explain the pilot study more in-depth.

The pilot study was done in order to find out what people consider important regarding the sustainability and price of products in the make-up industry. Several scales regarding sustainability exist, however not in the make-up industry. The pilot study was expected to give more information regarding this issue. The results of the pilot study (which was done by interviewing respondents), together with the literature presented in Chapter 2, formed the basis for the sustainability scale with its relating prices for the quantitative research.

Sample and data sources

The population of this research contained Dutch women in the age of 12 years and older. According to research, women start wearing make-up from the age of 11 years and older (Glamour Magazine, 2019). Since women go to secondary school from the age of 12 years, this age has been taken as starting point. Since 61% of women of 60 years and older still wear make-up, no maximum age has been taken into account (Marktdata, 2018). This resulted in a population of 7,595,375 Dutch women (CBS, 2018).

The pilot study has especially been used in order to optimise the online, quantitative experiment. The pilot study consisted of a qualitative, face-to-face interview containing open questions. For the pilot study, the sample size was not defined up front. As many respondents as needed have been interviewed. This was the case, when no more new insights had been gotten out of the interviews. Respondents have been chosen based on convenience (convenience sampling), which made it easy to get in contact with (potential) respondents of several ages. Family members, friends and colleagues of several ages have been asked for interviews via face-to-face contact on visits and birthdays, via telephone and via Facebook.

Measures

For this pilot study, open questions have been asked regarding the variables of the conceptual model. The pilot study in the end formed the basis for the online, quantitative experiment. The questions of the pilot study in interview-form can be seen in Appendix A.

Firstly, questions have been asked such as how respondents take price into account when being in a buying process (Question 1), how important a low price is (Question 2), what the respondents consider to be a fair price and what not (Question 3), how important a fair price is for respondents and why (Question 4), and what respondents perceive to be a fair price for make-up products and why (Question 5).

Next, sustainability was being reflected in the importance of the sustainability of a make-up product according to the respondent, which is being seen as an independent variable of this research. Questions have been asked regarding what respondents considered to be a sustainable product and what not (Questions 6, 7 and 12), what aspects of sustainability were important for the respondent (Questions 8 to 11), how important sustainability was for the respondent (regarding the four make-up products) and why (Questions 8 and 9), and how the respondent took sustainability into account when being in the buying process (Question 9).

Lastly, questions regarding the combination of price and sustainability have been asked. It has been asked to what extent people would pay more for a sustainable make-up product (Question 13), what people perceived to be a fair price for this (Question 14) and which aspects of sustainability people would pay more for and which less (Question 15).

Data analysis procedure

For the pilot study, the interviews have been transcribed and analysed. Transcripts can be requested at the researcher of this report

Online, quantitative experiment

Design

This section will first broadly explain how the online, quantitative research has been done, whereas later sections will explain the online, quantitative research more in-depth.

The quantitative research consisted of an experiment, questions about the importance people attach to sustainability and prices, and questions regarding background information. This has been done in survey-form. The most important part of the quantitative research was

the experiment. The experiment represented a hypothetical buying process, in which respondents had to choose between several options in order to customise their own make-up product.

Figure 3. Illustration of the quantitative experiment for lipstick

Firstly, respondents saw the product they were "buying" hypothetically (foundation, lipstick, eyeshadow and nail polish) by a picture and name of the product. For this product, the respondents had to make several choices regarding which colour of the product they would want to have, whether they would want to have a matte or glossy finish of the product, what application method (pump or foam) the respondents would prefer (for the foundation), and what degree of sustainability they would like the product to have. Depending on the degree of sustainability, the price of the product changed. The higher the degree of sustainability, the higher the price. This price has been shown directly underneath the sustainability scale (see Figure 3).

Additionally, background information about the options was given below the choice frame: information about the colour, about the finish of the product, about the application method and about the meaning of sustainability and its different degrees. Finally, by clicking on the button "choose", respondents were able to end the hypothetical buying process of the particular make-up product. Respondents had to go through the above process for all four different make-up products.

Sample and data sources

As explained in Chapter 3 the population of this research contains Dutch women in the age of 12 years and older, which resulted in a population of 7,595,375 Dutch women (CBS, 2018).

For the online, quantitative experiment, significance of results is very important. Therefore, validity and reliability needed to be taken into account in this research. Since this research contains four manipulation combinations, each group had to at least have 30 respondents because of the central limit theorem (Blazevic, 2018a). Since this is the absolute minimum and because of the complexity of the conceptual model, this research aimed for 50 respondents in each group / scenario combination. The total sample size was 330 respondents.

Both convenience sampling and snowball sampling, as part of non-probability sampling techniques, have been used. The survey questionnaires have been distributed online via Facebook, What's App, Instagram, Twitter and E-mail on Wednesday 12 o'clock, as was recommended by Coosto (2018). Next to this, snowball sampling has been done by asking friends, family and colleagues to share the survey (via Facebook, What's App, Instagram, Twitter or E-mail) with their family, friends and colleagues. These persons have been contacted face-to-face on visits, and by telephone. The contacted persons were expected to have a greater chance to be willing to distribute the survey on behalf of this researcher. The persons contacted were especially older members of this researcher's family (because of their willingness to assist in distributing surveys and since this would make sure that the sample would be distributed more equally regarding age), school colleagues (since they live in several parts of the Netherlands) and close friends (since they were willing to share the survey with their families). By using these forms of sampling, the minimum sample size has been reached with a total response of 330 respondents and variation has been achieved. This goal of variation is seen as even more important than representativity. Since the sample cannot be considered as representative for the population, external validity may not be very high.

In order to increase internal validity, it is important that the variables that are intended to be measured, actually are being measured (Korzilius, 2018). Therefore, concepts have been operationalised and reliability has been increased by eliminating unclear questions and faults in the survey. Five test surveys have been done before distributing the actual survey.

For increasing reliability, it is important to reduce non-response and early quitting of the survey (Korzilius, 2018). This has been done by offering an incentive via a lottery. Amongst all completed responses, one mascara or foundation of choice, for a maximum of 17

euros, and available in Dutch stores (Kruidvat, Etos, Hema or The Body Shop), has been offered as reward. Contact information of the participants of the lottery has not been matched with their results of the survey (as explained in Chapter 3, Section "Research ethics").

Another way to reduce prior quitting is to ask relatively easy questions at the beginning and the end of the survey, whereas the more in-depth questions should be asked in the middle (Jacobs, 2018a). For this research, mostly multiple choice and scale questions have been asked in order to make completing the survey clear and fast. The survey (Appendix B) started with easy questions regarding the use frequency of make-up (Question 1), the make-up products used (Question 2) and the prices people are willing to pay (Questions 3 to 6). The experiment, consisting of both multiple choice (colour, finish and application method) and scale (degree of sustainability) questions (Questions 7 to 10), has been done in the beginning in order to reduce bias. After the experiment, easier scale questions (regarding the importance of the sustainability of a make-up product and regarding the importance of the perceived fair price, Questions 11 to 21) and multiple choice questions (i.e. use of sustainable make-up, most used buying channel, age, education (Questions 22 to 25) have been asked.

Measures

The online, quantitative research consisted of an experiment (Questions 7 to 10), several questions (Questions 1 to 6, and 12 to 25) and introduction texts, which have all been presented in a survey (Appendix B). Multiple-choice questions have been used for measuring the importance of sustainability in relation to a perceived fair price, and the experiment has been done for looking at the sustainable choices made.

By doing this quantitative research, many different people were investigated and meaningful insights regarding the Dutch make-up industry were gained. This section will elaborate upon the design of the experiment. Furthermore, the theoretical concepts have been made measurable. Both the experiment and other questions have been based upon an operationalisation, which has been established deductively and based on the literature of Chapter 2, as explained below.

The experiment

The following make-up products have been chosen to be included in this research: foundation, lipstick, eyeshadow and nail polish. This choice has been based on what women wear most and based on the different kinds of options in each make-up product category (eyes, lips,

complexion and nails (NCV, 2018d)). A picture of the make-up product and its name have been shown in the choice process of the experiment, in order to make (visually) clear to people what make-up product was meant (see Figure 3 and Questions 7 to 10).

People had to choose for each of four make-up products between several mass customisation options, as part of a buying process regarding a customised product (Questions 6 to 11). For lipstick (Question 8, Appendix B), eyeshadow (Question 9, Appendix B) and nail polish (Question 10, Appendix B), the choice aspects which could be changed were colour (choice between five different colours) and finish (matte or glossy), and for foundations (Question 7, Appendix B) these were colour (choice between five different colours) and application method (pump or foam applicator). Lastly, consumers had to choose a certain degree of sustainability, from the horizontal left-right continuum, which they liked their customised product to have. However, the higher the sustainability degree (on a 5-points scale), the higher the price associated with that particular degree of sustainability. Background information regarding the choices has been provided (Figure 3 and Questions 7 to 10 of Appendix B). It has not been exactly explained what the different degrees of sustainability contained, since no scale existed yet regarding sustainability degrees for make-up products.

Even though the sustainability degree and its related price were the most important parts of the experiment, information about the colour, finish and application method also were of importance. These choice options have been added to the experiment, in order to make the experiment more vivid and to disguise the focus on sustainability. By doing this, bias has been reduced, since the experiment was (in the eyes of the respondent) less about sustainability, and more about the whole buying process.

The core concept of sustainability has been used two times in the online, quantitative survey. The importance of the sustainability of a make-up product (explained in Section "Additional questions") and the degree of sustainability which consumers were able to choose in the choice process (Questions 7 to 10 of the experiment) have been measured. The concept sustainability has in Chapter 2 been defined as: Combining the three pillars social, economy and environment, in order to improve the combined, diverse effects of these pillars.

The sustainable choice was the dependent variable of this research. The degree of sustainability has been indicated on a 5-point scale from least to most sustainable (and vice versa) and was based on Chapter 2 Section 'Sustainability' and on the pilot study. The different prices have been related to the sustainability degrees of the experiment (5-points

scale again), and were based on prices respondents themselves wanted to pay for the make-up products. The sustainability degree of the participants' choices has been measured based upon the mean response considering two products with a relating choice architecture (the mean of answers to Questions 7 and 8, and the mean of answers to Questions 9 and 10).

Choice architecture has been used in order to moderate the sustainable choice. This moderator represented a way of nudging / influencing. The manipulations, i.e. default and horizontal left-right continuum / presentation, were considered fixed effects in this procedure. Both the default option and the horizontal continuum are dichotomous, nominal variables.

The experiment consisted of a mixed between-within subjects design. As explained by Laerd statistics (n.d.), this design "compares the mean differences between groups that have been split on two factors (also known as independent variables), where one factor is a 'within-subjects' factor and the other factor is a 'between-subjects' factor". Regarding the "within-subjects" factor, for the dependent variable "sustainable choice", all respondents have participated in a 3 (with default at least sustainable, default at most or without default) × 2 (most to least or least to most sustainable) design. Regarding the "between-subjects" factor, respondents have been assigned to four different groups, each group containing two specific combinations of both the default and the left-right horizontal continuum. In the experiment, for each respondent, two make-up products were assigned to one combination (for example left-right horizontal continuum with default), two make-up products to another (for example left-right horizontal continuum without default). Thus, each respondent had to make four choices, of which two really differed. In each of the four groups, some respondents first received the with default combination and others first received the without default. Each row in figure 4 represents the presentation of choices a respondent may have had.

Figure 4. Illustration of experimental conditions

Figure 4 thus shows a visual representation of the combination of manipulations, i.e. the conditions in the experiment. This will be elaborated more upon. As can be seen, the default has been reverse ordered (placed on both the left and the right of the continuum). Each group consisted of four different manipulations, however, the upper two and the lower two manipulations were regarded as similar and represented one combination of manipulations. The only difference in one group was the order in which the default-setting was shown. This has been done in order to reduce bias due to order effects. Appendix B gives an example of one survey group where first for two make-up products, the default was set at the most sustainable option (Questions 7 and 8), and later for two other make-up products, no default was set (Questions 9 and 10). In reverse order presentation, some respondents have seen the continuum without any default earlier in the questionnaire. For these respondents the continuum with a default set at the, in this case, most sustainable option appeared later in the questionnaire. Both the normal and the reverse ordered results have been taken together. By doing this, eight survey groups had to be made via Qualtrics, where in total four survey groups really differentiated from each other regarding manipulation combination.

As explained, Figure 4 represents several combinations of choice architecture. The combinations are explained below. The numbers correspond with the top row of each number in Figure 4. The bottom row of each number in Figure 4 is the reverse order of the top row:

1. Most to Least sustainable (horizontal left-right continuum) (as in Romero and Biswas (2016)), default at the Most sustainable option (as in Frederiks et al. (2015), Van Dam & De Jonge (2015) and Sunstein and Reisch (2013)) + Most to Least sustainable, without default

2. Most to Least sustainable (as in Romero and Biswas (2016)), default at the Least sustainable option (as in Frederiks et al. (2015), Van Dam & De Jonge (2015) and Sunstein and Reisch (2013)) + Most to Least sustainable, without default

3. Least to Most sustainable (horizontal right-left continuum) (as in Casasanto (2009) and Spalek and Hammad (2005)), default at the Least sustainable option (as in Frederiks et al. (2015), Van Dam & De Jonge (2015) and Sunstein and Reisch (2013)) + Least to Most sustainable, without default

4. Least to Most sustainable (as in Casasanto (2009) and Spalek and Hammad (2005)), default at the Most sustainable option (as in Frederiks et al. (2015), Van Dam & De Jonge (2015) and Sunstein and Reisch (2013)) + Least to Most sustainable, without default

Each respondent was represented with all four make-up products once in the experiment (Question 7 to 10). Each person first got the above conditions for foundation and lipstick with default (Question 7 and 8, Appendix B), and then the conditions for eyeshadow and nail polish without default (Question 9 and 10, Appendix B) (or reverse ordered while still keeping the "default" set at foundation and lipstick and "without default" set at eyeshadow and nail polish). By doing this, liquid and solid substances have been combined in both default and without-default conditions.

For the choice aspects regarding colour, finish and application method, the default has been set similar to the default regarding the sustainability degree (Figure 3) to disguise the focus on sustainability. For example, if the sustainability degree was set from Most to Least sustainable, with the default at the most sustainable option, then the default of the other two choice aspects of the make-up product was also set at the first option (i.e. the first colour option and the matte finish instead of the glossy finish). If the sustainability degree had no default, then the other choice aspects also did not have a default. The colour, finish and application method have not been manipulated regarding the presentation on the horizontal continuum, since there cannot be made a difference between good or bad regarding these choice aspects.

Additional questions

In addition to the above experiment, several other questions have been asked in the online, quantitative experiment/survey, regarding the importance of the sustainability degree of the make-up product (Questions 17, 18 and 19) and regarding the importance of the perceived low and fair prices (Questions 11 to 16, and 20 and 21). Questions 11 to 18 and their items (totally disagree to totally agree on a 5-points scale) have been based upon Ferreira and Coelho (2015), whereas Questions 19 to 21 and their items (not that important to crucial on a 5-points scale) have been based upon Slack (1994). By using existing scales from this literature, reliability of the scales was assumed.

Lastly, background information has been questioned in the survey. Firstly, it has been asked whether and how often consumers used make-up (Question 1). If consumers did not use make-up, they were immediately directed to Questions 24 and 25. These two questions asked for the age and education of respondents. Lastly, Questions 22 and 23 asked for the most used buying channel (online or physical shop) of the respondent and whether respondents only bought sustainable make-up.

Data analysis procedure

For the online, quantitative experiment, the main question asked in this research was: What is the effect of the importance of sustainability and the importance of the perceived fair price, and their interaction, on the sustainable choice consumers make, when controlled by choice architecture. AN(C)OVA (analysis of covariance) has been used in this research, via SPSS (Blazevic, 2018b). For this method, at least one independent variable should be categorical and the dependent variable should be metrically scaled. The manipulations, i.e. default and left-right presentation, were categorical and considered as fixed effects in this procedure. The importance of sustainability and (low and fair) price were considered as covariates, together with the control variables (age, education and make-up use). The interaction of manipulations and the variables regarding importance captured the moderation effects.

Limitations and ethics of the Pilot study and the online, quantitative experiment

Research ethics

During this research, five principles of research ethics have been taken into account (APA, 2003). These are: discuss intellectual property frankly; be conscious of multiple roles; follow informed-consent rules; respect confidentiality and privacy; and tap into ethics resources. All principles have been extensively discussed in Appendix D and only the most important principles have been shortly summed in this section.

Firstly, the researcher of this report has full Copyright of this report and this report, as part of a master thesis project, will remain the property of the Nijmegen School of Management. Secondly, both the informal and formal roles of the researcher have been separated. Next, it has been made clear that participation of participants was voluntary, that they can withdraw at any time and that information will be held confidentially. Data has been analysed, without linking it to names or e-mail-addresses (anonymity). Further, a lottery has been set up in order to reduce withdrawal from the survey and in order to increase the response rate. It was possible to win an incentive, while respondents still remained anonymous. Lastly, people were able to get in contact with the researcher of this report.

4 Results

This chapter shows the results of the pilot study; the improvements to the online, quantitative experiment based on the pilot study and the results of the online, quantitative experiment. An extensive explanation of the results and references to SPSS tables of Appendix H can be seen in Appendix G.

Pilot study

Results pilot study

For the pilot study, five interviews have been done with seven different women. The interview planning including (anonymous) background information on the respondents can be seen in Appendix E, the transcripts of the interviews can be requested at the researcher of this report and a more extensive explanation of the results of the pilot study can be seen in Appendix G. Appendix H shows the most important, tables and figures.

The pilot study revealed several things. Firstly, the prices respondents were willing to pay differed by make-up product and by respondent, because of different perceptions of quality and brand experience. It appeared that most respondents thought that a (slightly) more expensive product also resulted in a higher quality. Additionally, even though respondents claimed to find fair prices for consumers, owners and employees very important, they were not always sure whether they actually paid fair prices. Therefore, many respondents were still willing to go for the lowest price for the highest quality, as is the case when products are on sale.

It became clear that sustainability (Dutch: 'duurzaamheid') was often seen as the lifespan or value for money of a product. Some also mentioned that it had to do with bio-materials; recycling; transport; not affecting new generations; child labour; environmentally-friendly products; open communication; helping suppliers and no animal-testing. Respondents stated that it is not sustainable for a company to say to be sustainable, but to not act like it.

Regarding the different aspects of sustainability, firstly working conditions and then animal testing were seen as important. Being good for the environment and offering society help were seen as nice to do, but not necessary. Opinions differed whether child labour may be used. Respondents did not take into account allergy friendly and vegan make-up.

Often respondents claimed to find sustainability important. However, even when a product was not sustainable, they still bought it because of financial reasons. In addition,

mostly respondents said to not even know or investigate whether a product actually was sustainable. Often it was unclear for them how (environmental) sustainability was related to make-up products. Additionally, some respondents questioned whether the environmental problems were really that big.

Not many respondents were willing to pay a higher price for the aspects of sustainability, unless it yielded more money (as solar panels do), or unless quality was also better. Some respondents said to be willing to pay 1 to 3 euros more for more sustainable make-up.

Despite some comments, respondents mentioned that labels should be developed to give more insight into sustainable make-up, to let consumers make the right choices and to establish trust in sustainable make-up. Prices were considered very important when developing such labels.

Adjustments to the survey based on the pilot study

Based on the pilot study, some adjustments were made to the survey. Firstly, it appeared that sustainability was often seen as the lifespan or quality of a product. Therefore, beforehand, it had to be mentioned what was and what was not seen as the meaning of sustainability.

Additionally, it was, even after having done the pilot study, hard to match the sustainability degrees with the large range of prices of make-up products. Therefore, it has been chosen to let consumers (who say to wear make-up) give a price which they on average pay for the different make-up products (Questions 3 to 6, Appendix B). Based on this reference price, the 5-point scale has been made from a 0% to a 20% price increase (in five steps). Beforehand, it was asked which of the four make-up products consumers use (Question 2). Even if consumers did not use all make-up products, they were still able to take part of the whole experiment, since Question 2 made it possible to make a distinction between answers of users and non-users.

Online, quantitative experiment

Adjustments to the survey based on the test survey and during distribution

Based on four test surveys, some minor improvements have been done before the actual survey was distributed. Since the programme Qualtrics was used, the experiment had a slightly different look than previously expected (see Appendix F). Still, it matched quite well.

While the survey was already distributed, it became clear that people did not read the descriptive text of Questions 3 to 6 (regarding prices people were willing to pay for make-up products) properly. A few respondents for example wrote a comma or €-sign and especially the '0' was often used. This resulted in wrong scales in the experiment. In order to reduce missing values over the remaining response, the descriptive text has been slightly adjusted after approximately 160 respondents.

Sample information

In total, 330 female respondents filled in the survey. As can be seen in Table 1, 37.3% of the respondents were in the age of 19 - 24 years old, 20.6% were 25 - 34 years old, 16.7% 45 - 54 years old, and 11.2% 55 - 64 years old. The highest completed education levels of respondents were 'MBO' (Intermediate, Vocational Education) and 'HBO' (Higher Vocational Education) with each one third of all respondents. Lastly, 70% of all respondents stated to wear make-up 5 to 7 days per week and only 2.7% said to never wear make-up.

Most respondents (85.7%) stated to buy their make-up in a physical store (Table 1). Only 3.4% stated to solely buy their products online. 8.7% of all respondents stated to only buy sustainable make-up, compared to 52.6% who stated to not buy sustainable make-up. 38.6% said to sometimes buy this. Regarding the four make-up products posed, Lipstick was the most used product (74.1%) for an average, rounded price of €10. After this follow foundation (70.4%) for €14,50, nail polish (66.7%) for €5.50 and eyeshadow (63.9%) for €9.60 (Tables 1 and 2).

81.15% of all respondents were willing to pay a price increase of at least 5% for more sustainable make-up (Table 26 and 27, Appendix H). On average, most people were willing to pay an approximate price increase of 10% (€0.55 to €1.44 on average, based on mean prices respondents were willing to pay for the several make-up products) (Table 6).

When looking at the answers of all respondents combined (Appendix G, Table 11), for foundation respondents liked the lighter colours Ivory (42.4%) and Cameo (33.0%). The pump application method was popular (89.4%). For lipsticks, a matt finish (70.1%) and the colours light nude (38.0%) and dark pink (27.1%) were popular. Regarding eyeshadow loved colours were brown (40.7%) and light brown (26.0%) and there was a slight preference for a mat finish (59.2%) compared to a shiny finish (40.8%). Lastly, the most liked colours for nail polish were, again, dark pink (34.3%) and light nude (30.5%). Here people preferred a glossy finish (66.0%).

Response

330 respondents completed the survey (gross response), which was put online in the first week of May 2019. The net response on Questions 3 to 6 with most missing values was 237. Lastly, 80 respondents have not completed the survey and have thus been excluded from the results. Since it has been distributed online, it is unclear what the response rate is.

The ANCOVA assumption minimum sample size of 30 respondents per category in the experiment (central limit theorem) has been met. Each category (e.g. Figure 4, category 1) contained at least 76 respondents without any missing values. A missing value analysis has been executed by using SPSS and showed that Missing values are not Completely At Random for Questions 3 to 6, but MAR (Missing At Random) (Appendix G) (Jacobs, 2018b). It often depended on whether a make-up product was being used, whether the values were missing.

Preliminary analyses

Regarding the preliminary analysis, descriptive statistics, tests for outliers, tests for normality, psychometric analyses, means, standard deviations and correlations, independence of errors and homogeneity of variance have been looked at.

Descriptive statistics

Table 1 shows the descriptive statistics of the nominal variables and Table 2 of the metric variables. The descriptive statistics of the make-up products and the preferred colours, application method and finish can be seen in Appendix G, Table 11.

Table 1

Distribution of nominal variables

Variable	**Items**	**Frequency**	**%**
Age	0 to 11 years	0	0
	12 to 18 years	19	5.8
	19 to 24 years	123	37.3
	25 to 34 years	68	20.6
	35 to 44 years	15	4.5
	45 to 54 years	55	16.7
	55 to 64 years	37	11.2
	65 years and older	13	3.9
Education level	Elementary school	3	.9
	VMBO/MAVO/VBO	40	12.1
	HAVO/VWO	30	9.1
	MBO	98	29.7
	HBO	98	29.7
	WO	56	17.0
	Other	5	1.5
Make-up use	5 – 7 days per week	231	70.0
	1 – 4 days per week	62	18.8
	Minimal 1 time per month	13	3.9
	Only exceptionally	15	4.5
	Never	9	2.7
Make-up product usage	Foundation	226	70.4
	Lipstick	238	74.1
	Eyeshadow	205	63.9
	Nail polish	214	66.7
Location make-up purchase	Mostly online	11	3.4
	Mostly in a physical store	275	85.7
	Both equally	35	10.9
Only purchasing sustainable make-up	True	28	8.7
	Sometimes	124	38.6
	Not true	169	52.6

Table 2

Distribution statistics of metric variables

Variable	Scale	Measurement level	N	Mean	S.D.	Skewness Estimate	S.E.	Kurtosis Estimate	S.E.
Price Foundation	1 – 50	Ratio	262	14.42	9.21	1.419	.150	2.191	.300
Price Lipstick	1.5 – 85	Ratio	283	10.122	7.404	4.344	.145	37.590	.289
Price Eyeshadow	1 – 80	Ratio	277	9.603	9.573	3.562	.146	16.688	.292
Price Nail polish	1 – 25	Ratio	272	5.477	3.664	1.902	.148	4.633	.294
Foundation Sustainability Most to least	1 – 5	Ordinal	68	2.62	1.246	.248	.291	-.642	.574
Lipstick Sustainability Most to least	1 – 5	Ordinal	72	2.64	1.325	.401	.283	-.821	.559
Foundation Sustainability most to Least	1 – 5	Ordinal	69	3.19	1.593	-.139	.289	-1.525	.570
Lipstick Sustainability most to Least	1 – 5	Ordinal	73	2.85	1.604	.170	.281	-1.491	.555
Eyeshadow most to least	1 – 5	Ordinal	141	3.01	1.422	.002	.204	-1.170	.406
Nail polish most to least	1 – 5	Ordinal	133	2.75	1.484	.281	.210	-1.250	.417
Foundation Least to most	1 – 5	Ordinal	64	2.89	1.534	.080	.299	-1.401	.590
Lipstick Sustainability Least to most	1 – 5	Ordinal	71	2.97	1.521	-.127	.285	-1.383	.563
Foundation Sustainability least to Most	1 – 5	Ordinal	61	3.03	1.549	-.029	.306	-1.428	.604
Lipstick Sustainability least to Most	1 – 5	Ordinal	67	3.01	1.581	-.025	.293	-1.492	.578
Eyeshadow least to most	1 – 5	Ordinal	136	3.06	1.392	-.056	.208	-1.117	.413
Nail polish least to most	1 – 5	Ordinal	139	3.13	1.493	-.145	.206	-1.311	.408

Notes. Capital letter of most or least indicates the default. E.g. most to Least, then default is Least. For constructing the sustainability scales, missing values of the items have been excluded listwise

Tests for outliers

Outliers have been detected for prices of make-up products (Questions 3 to 6). Still, the highest prices given were for higher-segment products (Strawberrynet.com, n.d.; Cosme-de.com, n.d.; Douglas, n.d.; Bol.com, n.d.). Therefore, they have not been excluded.

Test for normality

For the normality of sampling distribution of means, the skewness and kurtosis of variables have been checked based on Table 2. It appeared that a few variables were (slightly) skewed. However, it was not possible to improve the variables to appropriate levels. Still, because of the central limit theorem applicable due to the large sample, the distribution of the mean is assumed to be approximately normal.

Psychometric analyses of variables

Reliability of sustainability, fair price and low price scales

Questions 11 to 18 and their items have been based upon Ferreira and Coelho (2015), whereas Questions 19 to 21 and their items have been based upon Slack (1994). All variables regarded the importance people attached to sustainability, a fair price and a low price. By using scales from this literature, reliability has been assumed. Since the scale of Ferreira and Coelho (2015) consists of multiple items, only their scale has been used in the results of this research.

Regarding the scales of Ferreira and Coelho (2015), Cronbach's Alphas for the three-factor model were for sustainability $\alpha = .741$, for fair price $\alpha = .702$ and for low price $\alpha = .466$. Only the first two were both sufficient. Therefore, a common factor analysis has been done to see if the scales could be improved.

Common factor analysis of the scale items

In order to make sure the factors had good loadings and since the scale of Ferreira and Coelho was adjusted to the variables needed in this research, a common factoring analysis has been done. First, the distribution of the scale items has been evaluated (Appendix G, Table 12). Using transformations such as "log" was not possible: for all skewed variables (lowprice1, lowprice2 and fairprice2), kurtosis worsened to a value larger than |3|. Therefore, variables with a higher skewness were not excluded. Furthermore, in principal axis factoring each factor consists of a common and unique part (Ligthart, 2018). Oblique rotation (Oblimin) has been used, since it could have been possible for factors to correlate (Table 31, Appendix H).

Analyses have been done for reaching the right extraction values (>.2) in the communalities table. In each analysis it was made sure that KMO and Bartlett's Test showed adequate numbers of respectively > .5 and p < .05. After having done three analyses (Appendix G), the eigenvalues and the scree plot (albeit less clearly) showed a three-factor solution. Additionally, the Pattern Matrix showed three factors containing two items each (Table 3). The relevant factor loadings were all > .5, which means that all correlations between variable and factor were significant. Only for both factors "fair price" and "sustainability" factor loadings were high enough.

Variables excluded from the factors were "lowprice3" and "fairprice1" (Tables 42 and 43, Appendix H). "Lowprice3" showed that opinions were divided regarding whether a low price is important for make-up products. "Fairprice1" showed that 50% of the respondents thought that the sustainability degree of make-up varies with the price of the product. 44.2% were neutral regarding this statement.

Table 3

Pattern matrix of common factor analysis, oblique rotation

Items	1	2	3
Low price and high quality (lowprice1)			.595
Comparison of prices (lowprice2)			.590
Great value to fair price (fairprice2)		.905	
Fair price is important (fairprice3)		.879	
Great value to sustainability (sustainable1)	.939		
Sustainability is very important (sustainable2)	.942		
Alpha	.939	.887	.514
Eigenvalue	2.551	1.462	1.025
Percentage of variance	39.868	18.249	9.820

Note. The cut-off point was .10

With exception of "low price" ($\alpha = .514$), the alpha reliabilities were above the .7 criterion (Table 3) suggested by Hair et al. (2014). Since the adapted scale of Ferreira and Coelho (2015) was relatively new and thus in the early stages of scale development, reliabilities of between .5 and .6 were considered adequate (Nunnally, 1978). Table 4 shows the distribution statistics of the scales.

Table 4

Distribution statistics of the scales

Variable	Scale	Measurement level	N	Mean	S.D.	Skewness Estimate	S.E.	Kurtosis Estimate	S.E.
Low price	1 – 5	Ratio	321	3.689	.961	-.485	.136	-.213	.271
Fair price	1 – 5	Ratio	321	3.618	.971	-.371	.136	-.319	.271
Sustainability	1 – 5	Ratio	321	3.103	1.120	.065	.136	-.732	.271

Means, Standard Deviations and Correlations

As can be seen in Table 5**,** not every variable correlated with every other variable. It appeared that variables which both contained a default at the same end of the continuum (so at "least sustainable" or at "most sustainable") correlated with each other (such as "FDMl" and "LDMl", and "FDmL" and "LDmL"). It seemed that variables which did not have a default, correlated with all other variables on the same continuum (so "OTDml" correlated with all other variables at the most-least continuum. All correlations were significant (p < .01).

Table 5

Correlations

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. FDMl	2.61	1.314		.618**			.301**	.339**						
2. LDMl	2.64	1.402	.618**				.443**	.537**						
3. FDmL	3.28	1.567				.732**	.535**	.558**						
4. LDmL	3.00	1.612			.732**		.583**	.555**						
5. OTDml	2.99	1.414	.301**	.443**	.535**	.583**		.674**						
6. NTDml	2.79	1.485	.339**	.537**	.558**	.555**	.674**							
7. FDLm	2.73	1.526								.589**			.457**	.462**
8. LDLm	2.84	1.513							.589**				.458**	.645**
9. FDlM	3.26	1.517										.544**	.431**	.324**
10. LDlM	3.04	1.551									.544**		.425**	.515**
11. OTDlm	3.05	1.390							.457**	.458**	.431**	.425**		.460**
12. NTDlm	3.06	1.488							.462**	.645**	.324**	.515**	.460**	

Notes. ** p < .01. F = Foundation, L = Lipstick, O = Eyeshadow, N = Nail polish, D = Sustainability, T = Total, ml = no default, ML and LM = the capital letter shows the place of the default. For example: FDMl: Foundation, Sustainability, Most to least continuum, default at Most sustainable.

Before doing the ANCOVA analysis, new variables have been computed. Variables regarding the sustainable choices people made for foundation and lipstick have been averaged

into "Choice1" and variables regarding eyeshadow and nail polish have been averaged into variable "Choice2". It has been made sure by recoding that all variables were ordered from least to most. In order to show what order variables originally had, a new variable was made: "Continuum". This dummy variable showed whether the continuum used to be from least to most (value of 1) or most to least (value of 2). Lastly, the dummy variable "Default" has been made, with "Default at least" (value of 1), "Default at most" (value of 2) and "No default" (value of 0) as values. The no-default option was always combined with the variable "Choice2", eyeshadow/nail polish. "Choice1", foundation/lipstick, always contained a default (default at least or at most). For Choice1 and Choice2, Pearson correlations showed a value of .620 significance at $p < .01$ (Table 44, Appendix H). It can be concluded that "Choice1" (Foundation/Lipstick) and "Choice2" (Eyeshadow/Nail polish) highly correlated.

Independence of errors

The assumption of independence of errors has been achieved by giving the design of the experiment a proper randomisation.

Homogeneity of variance

The last assumption that had to be tested before executing the ANCOVA-analysis was homogeneity of variance, by using Levene's Test of equality of error variances. All Fixed and Control variables (for exact variables see Section "Hypotheses testing") were included for the test. For Choice1, the result of Levene's Test was: $F_{(3, 290)} = .954$, $p > .05$; for Choice2 the result was: $F_{(1, 293)} = 3.013$, $p > .05$ (Tables 45 and 46, Appendix H). Homogeneity of variance was assumed for both variables. Equal variances across groups existed.

Hypotheses testing

The experiment in this research consisted of a 3×2-design. The default was set at the left of the continuum, at the right of the continuum or there was no default. Additionally, the continuum went either from most to least or from least to most. As explained, ANCOVA has been used, separately for "Choice1" and "Choice2" to see whether differences existed between sample means. As the dependent variables, "Choice1" and "Choice2" have been chosen. Fixed factors were "Continuum" and "Default", and Control Variables were: "Lowprice", "Fairprice", "Sustainability", "Wearing make-up", "Age" and "Education".

Four univariate ANCOVA's have been done. First, an ANCOVA has been done in which the model has been adjusted in order to see whether interaction effects exist for

"Choice1" between "Continuum" and "Default", "Continuum" and "Fairprice", "Continuum" and "Sustainability", "Default" and "Fairprice", and "Default" and "Sustainability". This model resulted in an Adjusted R^2 of 20.7%, which was an acceptable model fit. Results can be seen in Table 47 of Appendix H. Second, the same analysis has been done for "Choice2", however now without "Default" and its relating interaction effects (since there was no default in this choice). This resulted in an Adjusted R^2 of 16.0% (Table 48, Appendix H). Again no interaction effects have been found. Third and fourth, ANCOVA's have been done in which the full factorial model of SPSS (without the interaction terms with the covariates) has been used, separately for "Choice1" and "Choice2". The total variance explained by the model was 21.5% for "Choice1" and 16.3% for "Choice2" (Adjusted R^2, Table 6 and Tables 49 and 50, Appendix H). The model fit of the data was acceptable. These Adjusted R^2 were higher than the Adjusted R^2 of the first ANCOVA with the adjusted model, therefore, these ANCOVA's have been used in further analysis. For testing significance, F-tests have been conducted with $\alpha = .05$. Results can be seen in Table 6 and Tables 49 to 53 of Appendix H.

Table 6
ANCOVA Results

Choice	Variable	Mean	F	Sig	η^2
1	Low price	3.692	.524	.470	.002
	Fair price	3.622	4.543	.034	.016
	Sustainability	3.126	71.083	.000	.200
	Wearing make-up	1.41	1.076	.300	.004
	Age	4.33	.020	.887	.000
	Education	4.33	8.994	.003	.031
	Continuum	3.098	.377	.540	.001
	Default	3.098	7.097	.008	.024
	Continuum * Default	3.098	1.614	.205	.006
2	Low price	3.693	.121	.729	.000
	Fair price	3.630	.379	.538	.001
	Sustainability	3.095	48.145	.000	.144
	Wearing make-up	1.40	.908	.341	.003
	Age	4.31	.086	.769	.000
	Education	4.33	10.983	.001	.037
	Continuum	3.097	.005	.005	.943

Note. Adjusted R^2 Choice1: .215; Choice2: .163

In addition, although Choice 1 (foundation and lipstick) concerned different products than Choice 2 (eyeshadow and nail polish), which can in theory not be compared directly, a repeated measures ANCOVA has been executed by means of exploratory research, because "Choice1" and "Choice2" were made by the same respondents. "Choice1" (with default at

least or most) versus "Choice2" (without-default) have been appointed to "Factor 1", fixed factors and covariates have been kept the same as in the ANCOVA analysis, and the full factorial model has been used (Table 7 and Tables 54 and 55, Appendix H). The model has been executed without the interaction effects between "Fairprice" and "Sustainability".

Table 7
Repeated Measures ANCOVA Results

Variable	F	Sig	η^2
Factor 1	.032	.858	.000
Factor 1 * Low price	.160	.690	.000
Factor 1 * Fair price	2.701	.101	.010
Factor 1 * Sustainability	2.882	.091	.010
Factor 1 * Wearing make-up	.009	.923	.000
Factor 1 * Age	.037	.849	.000
Factor 1 * Education	.111	.739	.000
Factor 1 * Continuum	.686	.408	.002
Factor 1 * Default	5.344	.002	.019
Factor 1 * Continuum * Default	2.762	.098	.010

Hypothesis 1

Firstly, when looking at direct effects of the full factorial model ANCOVA (Table 6), "Sustainability" did have a significant, direct effect for both "Choice1" ($F_{(1, 284)} = 71.083$, $p < .05$; effect size η^2: .200, moderate effect) and "Choice2" ($F_{(1, 287)} = 48.145$, $p < .05$; η^2: .144, rather moderate effect), whereas "Fair price" only had significant, direct effects for "Choice1" ($F_{(1, 284)} = 4.543$, $p < .05$; η^2: .016, weak effect). A new found direct effect was that of "Education" on the choice made, which was significant for both Choice1 ($F_{(1, 284)} = 13.488$, $p < .05$; η^2: .031, weak effect), and Choice2 ($F_{(1, 287)} = 10.983$, $p < .05$; η^2: .037 weak effect). Other variables in Choice1 and Choice2 did not show significant effects (p's > .205), except for "Default" (as will be explained later). Thus, low price, wearing make-up, age and continuum all did not influence the sustainable choice made.

H1 was not fully supported based on the ANCOVA with the adjusted model (Tables 47 and 48, Appendix H). There indeed was no interaction effect of "Sustainability" and "Fair price" on the sustainable choice made (p's > .314). Concluding, the importance of sustainability in relation to a perceived fair price did not have a (positive) effect on the sustainable choice. Only the importance people attached to sustainability, the education people have had and the importance people attached to a fair price (the latter only for Choice1) had effects on the sustainable choice people make. People who attached more importance to sustainability were willing to pay a price increase of approximately 10%,

people with a higher education and people who attached importance to a fair price were willing to pay an increase of approximately 15%. Figure 15, 16 and 17 of Appendix H show: the more important sustainability or fair price was being seen, the more likely the sustainable choice was being made. Additionally, the higher the education people graduated for (both for secondary education and vocational/university education), the more likely people were to choose the more sustainable option (Figure 18 and 19, Appendix H).

In addition to the absent relationship between "Sustainability" and "Fairprice", there were also no interaction effects between "Sustainability" and "Continuum" or "Default", and between "Fair price" and "Continuum" or "Default". Therefore, hypotheses 2a to 2c were all not supported regarding the combined trade-off effect of sustainability and fair price and their effect on the sustainable choice made, and regarding the effect of continuum or default on this relationship. Since "Default" and "Continuum" did not contain more than two groups, no post hoc tests could be done. Still, the ANCOVA analyses showed helpful values.

Hypothesis 2a

Based on the significant value of the "Default" variable (F (1, 284), = 7.097, p < .05; η^2: .024, weak effect) (Table 6, univariate ANCOVA, full factorial model), it can be said that H2a must be accepted. However, since no interaction effects have been found between "Default", "Sustainability" and/or "Fair price" (p's > .529), H2a has only been partially accepted. The effect of the importance of sustainability or fair price on the sustainable choice, was not being moderated. The effect of "Default" was independent of "Sustainability" or "Fair price" and only directly influenced the Sustainable Choice made.

It appeared that when using a default at the most sustainable option, a higher mean value regarding the sustainable "Choice1" (Mean = 3.291) was being reached than when placing the default at the least sustainable option (Mean = 2.905) (Table 53, Appendix H). Using a default at most thus resulted in a more sustainable product choice.

In order to be able to see whether there was an effect when using the default compared to when not using the default, "Choice1" and "Choice2" had to be compared regarding the with and without default option, by using a repeated measures ANCOVA. As Table 8, and Tables 54 and 55 of Appendix H show, a significant result was found for the default effect, as compared with no default (F (1, 274) = 5.344, p < .05; effect size η^2: .019, weak effect). When the default was set at "Least sustainable" the choice corresponded with 2.976 on the sustainable choice scale (Choice1), as compared with 3.113 when no default was set

(Choice2). When the default was set at "Most sustainable" the choice corresponded with 3.255 on the sustainable choice scale (Choice1), as compared with 3.115 when no default was set (Choice2). This result indicated that setting a default differentially influenced the sustainable choice as compared with no default.

Table 8
Repeated Measures ANCOVA Results of Default

Variable	Mean	S.D.
No Default	3.116	1.295
Default at Least	2.976	1.444
Default at Most	3.255	1.301

Hypothesis 2b

H2b, was not supported by the results of the research. "Continuum" did not show significant effects for "Choice1" and "Choice2" with ANCOVA (p's > .540). Additionally, the repeated measures ANCOVA showed a non-significant effect (Tables 54 and 55, Appendix H). Putting the options of most sustainable to least sustainable horizontally from left to right on a continuum did not influence the sustainable choice or moderate the positive effect of the importance of sustainability or fair price on the sustainable choice.

Hypothesis 2c

The interaction effects of Choice1 continuum with default and Choice1 continuum or default with sustainability or fair price were all not significant and thus did not influence the model (p's > .205), meaning that H2c must be rejected. There was no combined effect of using both the default and putting the options most sustainable to least sustainable horizontally from left to right or right to left, on the sustainable choice or on the positive relationship of sustainability and/or fair price and the sustainable choice.

Conceptual model

The conceptual model should be adjusted based on the results, since the model with no interaction effects was preferred. Hence we assume only direct effects of Sustainability and Fair price on the Sustainable choice. Furthermore, the moderator Continuum should be taken out of the model, and Default should have a direct effect on the Sustainable choice.

5   Conclusion and Discussion

This chapter contains both the conclusion and discussion of this report. Results have been interpreted and a contribution has been made to the literature. The managerial implications, a critical reflection on the limitations of the research and directions for future research have been discussed.

Conclusion

The conclusion of this report will be discussed. An answer will be given to the research question: How do the horizontal continuum and the default option in make-up customisation tasks influence consumers' sustainable product choices in this industry in the Netherlands?

It was hypothesised that the more important people find sustainability in relation to a perceived fair price, the stronger their combined trade-off effect on the sustainable choice. However, it was also hypothesised that this effect would be changed, when taking into account nudging. More specifically, it was expected that using or not using a default moderates the relationship; that changing the horizontal continuum (most to least sustainable from left to right versus right to left on a continuum) moderates the relationship and that the combined effect of using both the default and the horizontal continuum (most to least sustainable from left to right) moderates the relationship.

Firstly, it must be concluded that the with-default choice ("Choice1", Foundation/Lipstick) and the without-default choice ("Choice2", Eyeshadow/Nail polish) have a high correlation. However, the levels were different, such that a default set at Most sustainable resulted in a more sustainable choice, as compared with the no-default setting. When the default was set at Least sustainable, the choices made were less sustainable than in the no-default setting. This direct effect of the default on the sustainable choice was not as expected. Beforehand, it was expected that there would be a direct trade-off effect of the importance people attach to sustainability and the importance people attach to a fair price, on the sustainable choice people make. This was not the case. There only was a direct effect of the importance respondents attach to sustainability on the sustainable choice respondents make. The more important respondents find sustainability, the more often they make the sustainable choice. The importance respondents attach to a fair price only had an effect on the choices respondents make regarding the make-up products where the default option was in place (foundation and lipstick). Respondents attaching more importance to a fair price also were, in case foundation or lipstick were being bought, willing to choose for more

sustainability and to thus pay a higher price. In addition, a direct effect of education on the sustainable choice was found. In case respondents graduated for a higher education, they more often choose the sustainable option than when they graduated for a lower education. Lastly, it appeared that the horizontal continuum does not influence the sustainable choice respondents make.

The additional questions of the survey showed that respondents mostly buy their make-up in a physical store for prices of approximately €5.50 to €14.50, differing per make-up product. Of the four make-up products, lipstick is most used, after which follow foundation, nail polish and eyeshadow. Not many respondents buy sustainable make-up.

For foundation, respondents like the lighter colours. This most likely has to do with their skin colour. For lipstick and nail polish respondents like the colours dark pink and light nude. However, for lipstick people like a matt finish and for nail polish a glossy finish. Lastly, regarding eyeshadow, loved colours are brown and light brown.

Both the pilot study and multiple choice questions of the survey showed that respondents are all willing to pay very different prices for make-up products because of different perceptions of quality and brand experience. Furthermore, the pilot study showed that sustainability (duurzaamheid) is not always seen as the three pillars (economic, social and environmental), but as the lifespan and/or value for money of a product.

Respondents see working conditions and being animal-friendly as most important aspects of sustainability. After this follow being good for the environment and society. In the pilot study it appeared that even if respondents find sustainability important, they do not always buy the sustainable option because of financial reasons. However, the experiment did not show this direct effect of a low price on the sustainable choice made.

The pilot study showed that respondents are willing to pay 1 to 3 euros more for more sustainable make-up. The experiment showed that respondents were willing to pay a price increase of 10%. When looking at the mean prices respondents were willing to pay for the several make-up products, it can be concluded that respondents are on average willing to pay a price increase of €0.55 to €1.44. This lies within the range of the pilot study. Lastly, the pilot study showed that respondents would like to have labels in order to be able to make more sustainable choices.

Concluding, using the default at the most sustainable option, as part of nudging, can help consumers choose the more sustainable option. Using the default option in customisation tasks in the cosmetics industry will benefit the economy, the people and the environment, all as part of sustainability.

Discussion

The discussion of this report will elaborate on the theoretical and managerial implications of the research, the limitations of the research and the directions for future research.

Theoretical implications

The current research has several theoretical implications. It will be discussed whether the results and conclusion show similar outcomes as the expectations based on theory.

Previous research showed that people not always know what is meant with sustainability for a product (Cervellon & Carey, 2011). The pilot study shows similar results and adds that this especially is the case when sustainability is related to make-up. Van Loo et al. (2015) and Grunert (2011) already mentioned that a label could help give more insight into sustainability. The pilot study agreed. These previous studies and the pilot study showed, that it is important to not develop a wide range of labels. There should be one label that can be used for multiple (if not all) branches, since consumers must understand what the label stands for and it must be seen as reliable.

Choi and Ng (2011) argued that people find it more important that a firm has good environmental sustainability than that its products have low prices. However, the results of the pilot study were conflicting. On the one hand, respondents avoid some stores because of poor sustainability. On the other hand, respondents also still often go to such stores, when no other possibilities exist or when prices are much lower than in other stores.

Grob (1995) argues that environmental behaviour is mainly caused by personal-philosophical values and emotions. The current research agrees with this, as can be seen by the significant effects on the sustainable choice by the importance respondents attach to both sustainability and a fair price, and the non-significant effect of the importance of a low price. Convenience is, other than Padel and Foster (2005) argued, seen as less important. Additionally, the current research did not support the statement that price is seen as a big barrier in the discrepancy between attitude and behaviour (Diekmann & Preisendörfer, 1998; Padel & Foster, 2005; Romero & Biswas, 2016). It was thought, that if people find a low price

very important, they less often choose the sustainable option. The pilot study showed similar results, however the experiment showed a non-significant effect.

Duurzaam-Ondernemen.nl (2018) says that 50% of the Dutch consumers find sustainability important if it has direct advantages for the consumer. The pilot study showed similar results. Here sustainability was especially seen as important, when its meaning had to do with the lifespan and quality of a product or with the fact whether it was possible to earn money with it (solar panels).

According to Ingenbleek (2015) sustainable products often are sold at a higher price than less sustainable products. The current research showed that respondents often think that this is the case. Additionally, Duurzaam-Ondernemen.nl (2018) argues that 36% of all Dutch consumers are willing to pay more for a sustainable product. In the current research, it appears that this statement does not hold. 81.2% of all respondents were willing to pay a price increase of at least 5%. Since there was no significant effect of the horizontal continuum, this did not differ for the continuums most-least versus least-most. Regarding the default this did differ between with and without default setting. Pelsmacker et al. (2005) further argued that consumers are willing to pay a 10% price premium for a sustainable label. The current research showed similar results. When using a default at the most (or least) sustainable option, the price may be increased (decreased) with a few percentages.

According to Hanss and Böhm (2012) consumers often base themselves on conscious and deliberative decisions, when choosing a sustainable product. The current research partially agrees. Firstly, as explained, consumers indeed base themselves on the importance they attach to sustainability and in some cases on the importance they attach to a fair price. The current research however, as expected, also shows opposite results: nudging by using a default can help influence consumers unconsciously. By using the default at the most (or least) sustainable option, people will sooner choose this option.

The current research showed similar results as Prakash (2002). On average, the choice process with the default at least resulted more often in choosing the less sustainable product, than when the default was placed at the most sustainable option. Concluding, consumers indeed are willing to pay more in order to avoid buying less-than-average sustainable products (default at most) and they indeed are less willing to pay premium prices for more-than-average sustainable products (default at least). According to Tversky and Kahneman (1991)

this is the case, since a loss (considered as deviation from the default) has greater impact on preferences than a gain.

The current research also showed similar results as Sunstein and Reisch (2013), who said that green defaults can have major consequences for the environment. However, the effect in the current research is only seen as weak. Furthermore, Frederiks et al. (2015) expected that when using opt-out, consumers sooner choose the default option (compared to other options). The repeated measures ANCOVA showed that respondents indeed sooner choose the default option.

Casasanto (2009) and Spalek and Hammad (2005) showed that presenting the sustainable options should be done on a continuum from least to most sustainable (right-left continuum), and Romero and Biswas (2016) argued that the options should be presented horizontally from most to least (left-right continuum). The current research did not show any significant effect regarding the horizontal continuum. The results of Casasanto (2009), Spalek and Hammad (2005) and Romero and Biswas (2016) have not been supported.

Lastly, as already discussed, the conceptual model of the current research should be adjusted based on the results, since the model with no interaction effects was preferred. Hence we assume only direct effects of Sustainability and Fair price on the Sustainable choice. Furthermore, the moderator Continuum should be taken out of the model, and Default should have a direct effect on the Sustainable choice.

Managerial and practical implications

The results of this report can be used in the make-up industry by management. Stores can use the results both online and offline. Online this can be done, by placing a default option at the most sustainable products the company sells, or, in a customisation process, on the most sustainable option one can choose for the product. Offline, a default can also be placed on the store shelf. This can be done by for example using a sign surrounding or pointing at one of the products, which must be seen as default by consumers.

In addition to using the default option, the industry should develop a sustainability label, representing the different degrees of sustainability. Further research will have to be done regarding these labels, as will be further elaborated upon in the Section 'Directions for Future Research'. Once these labels have been developed, these must be used by the make-up industry. Management must make sure that labels are placed at packages, in order to offer

consumers information regarding the sustainability degree of the products. Furthermore, it must be made sure by the whole industry that it is clear what the meaning of each label is and each organisation should use the labels at its packages.

The final managerial implication regards the target group. Especially higher educated respondents made more sustainable choices. Furthermore, respondents who already find sustainability and/or fair prices important, also sooner made the more sustainable choice. It is recommended for companies to adjust their target groups to people with these characteristics.

Limitations

The reader of this report should bear in mind that this research contains a few limitations. First, the data in this research contain missing values. The reason for this was because respondents did not read the descriptive text for Questions 7 to 10 properly or because respondents were not willing to pay anything for a make-up product. Whilst the survey was already distributed, the text has been slightly adjusted to make clearer for respondents what to do and what not to do. This slightly decreased the amount of missing values. It would have been better to make the descriptive text as short and clear as possible, in order for respondents to actually read the whole text carefully. In addition, the research could have responded better to the actual products respondents use, by for example letting respondents only receive questions relating to these products. Still, it was possible to exclude missing values and since a large number of respondents joined the survey, results are still applicable.

Furthermore, as explained, it is possible that a discrepancy between attitude and behaviour exists (Hussain, 2000; Padel & Foster, 2005). It could be that results are slightly less positive in a physical situation than in this online experiment. Still, it is thought that the discrepancy between attitude and behaviour is not that high in this research. Firstly, since the experiment was done in a very similar way to real-life purchases online and since only afterwards some questions have been asked regarding the attitude towards sustainability, low prices and fair prices. Secondly, since the results also did not show too big differences between the attitudes of respondents and the behaviour respondents showed in the experiment.

Directions for Future Research

Firstly, it is recommended to replicate the current research in other branches, as done by Van Dam and De Jonge (2015). By doing this, it can be checked whether the results still hold under other environmental circumstances. The same hypotheses and make-up products as in this research may be used, in order to be able to compare the results of different sectors.

The current research contained an online experiment with a large number of respondents. However, the research showed that only 3.4% of all respondents buy their make-up online. A possibility for future research is executing the experiment in a physical setting, as in Romero and Biswas (2016), in order to check whether the results still hold in the cosmetics industry. A physical store as Etos could be contacted in order to collaborate in executing the research. The same hypotheses and make-up products as in this current research may be used, however now the horizontal continuum will be shown on a store shelf. Regarding the default option, it could be possible to develop a sign surrounding the default product at the horizontal continuum. By keeping the hypotheses and make-up products closely related, results of both researches may be compared.

Third, this research only aims at two forms of choice architecture (setting the default on and off and using the horizontal continuum from left to right and right to left). Other forms of choice architecture (such as the vertical continuum of choice architecture), have not been taken into account in order to not make this research too extensive. A recommendation for future research is to include other forms of choice architecture.

Lastly, this research recommends developing a common label regarding sustainability. It is recommended for marketers and public policy, to develop a sustainability scale in the make-up and cosmetics context and to assess several make-up brands on this scale in order to make consumers aware of differences in sustainability regarding make-up and to let them more consciously make the sustainable choice. The pilot study already showed some important aspects of sustainability regarding the make-up industry. However, it is important to do more research into this issue. Firstly, it is important to investigate which labels already exist for several sectors and what the items are these labels are based upon. Additionally, it is important to know what people see as sustainable practices, what people find more and less important, and what environmental, social and economic experts find more and less important. Based on this, one common scale should be developed in order to be used in all sectors. By making the label/scale applicable to all sectors, it will be easier for people to interpret the meaning of the label for the several, different products. Sustainability regarding the make-up industry will be put on the agenda.

References

AD (2016). ACM wil einde aan wildgroei 'misleidende' keurmerken. Retrieved on 4 March 2019, from: https://www.ad.nl/economie/acm-wil-einde-aan-wildgroei-misleidende-keurmerken~a6bc33b3/

AD (2019a). Klimaatspijbelaars: 'Deze week geen staking'. Retrieved on 19 February 2019, from: https://www.ad.nl/binnenland/klimaatspijbelaars-deze-week-geen-staking~a4f381ff/

AD (2019b). Rutte gaat in gesprek met klimaatspijbelaars. Retrieved on 19 February 2019, from: https://www.ad.nl/politiek/rutte-gaat-in-gesprek-met-klimaatspijbelaars~a8ffae51/

Addis, M., & Holbrook, M. B. (2006). On the conceptual link between mass customisation and experiential consumption: an explosion of subjectivity. *Journal of Consumer Behaviour, 1*(1)

Airola, K. (n.d.). Sustainable Innovation in Cosmetics. *Plug and Play*

Alford, D., Sackett, P. & Nelder, G. (2000). Mass customisation – an automotive perspective. *International Journal of Production Economics, 65*(1), 99-110

APA (2003). Five principles for research ethics. Retrieved on 11 March 2019, from: https://www.apa.org/monitor/jan03/principles

APA (2017). Ethical Principles of Psychologists and Code of Conduct. Retrieved on 11 March 2019, from: https://www.apa.org/ethics/code

Arnold, O., Kibbe. A., Hartig, T., & Kaiser. F. G. (2017). Capturing the Environmental Impact of Individual Lifestyles: Evidence of the Criterion Validity of the General Ecological Behaviour Scale. *Environment and Behaviour, 50*(3), 350-372

Barbulova, A., Colucci, G., & Apone, F. (2015). New trends in cosmetics: By-products of plant origin and their potential use as cosmetic active ingredients. *Cosmetics*, *2*(2), 82-92

Bardakci, A., & Whitelock, J. (2003). Mass-customisation in marketing: the consumer perspective. *Journal of Consumer Marketing, 20*(5), 463-479

Bernartzi, S., Beshears, J., Milkman, K. L., Sunstein, C. R., Thaler, R. H., Shankar, M., & Galing, S. (2017). Should governments invest more in nudging?. *Psychological Science*, *28*(8), 1041-1055

Blazevic, V. (2018a). Vera Blazevic – AN(C)OVA – 2.5 (09:11). *Radboud University*

Blazevic, V. (2018b). Vera Blazevic – AN(C)OVA – 2.1 (09:11). *Radboud University*

Blazevic, V., & Belei, N. (2018). Sustainable by default – how determining the default option in product customisation tasks nudges sustainable product choices. *Radboud University*

Bloemer, J. (2018a). Lecture 3.1 Consumer Behaviour 2018-2019. *Radboud University*

Bloemer, J. (2018b). Lecture 3.2 Consumer Behaviour 2018-2019. *Radboud University*

BNR (2018). Consument heeft weinig trek in duurzaam als het duurder is. Retrieved on 6 March 2019, from: https://www.bnr.nl/nieuws/duurzaamheid/10358962/consument-heeft-weinig-trek-in-duurder-duurzaam-voedsel

Bol.com (n.d.). Dior Gel Nailcoat - Topcoat. Retrieved on 15 May 2019, from: https://www.bol.com/nl/p/dior-gel-nailcoat-topcoat/9200000029322294/?suggestionType=typedsearch&bltgh=iuyO-0FXTiznkSMoailGdw.lVv7-y3iUMv12r89fXdHSg_0.17.ProductImage

Cambridge Dictionary (n.d.). Meaning of influence in English. Retrieved on 9 March 2019, from: https://dictionary.cambridge.org/dictionary/english/influence

Casasanto, D. (2009). Embodiment of abstract concepts: good and bad in right-and left-handers. *Journal of Experimental Psychology: General*, *138*(3), 351

Cash, T. F., & Cash, D. W. (1982). Women's use of cosmetics: Psychosocial correlates and consequences. *International Journal of Cosmetic Science*, *4*(1), 1-14

Cash, T. F., Dawson, K., Davis, P., Bowen, M., & Galumbeck, C. (1988). Effects of cosmetics use on the physical attractiveness and body image of American college women. *The Journal of Social Psychology*, *129*(3), 349-355

CBS (2018). Bevolking; geslacht, leeftijd en burgerlijke staat, 1 januari. Retrieved on 8 March 2019, from: https://statline.cbs.nl/Statweb/publication/?DM=SLNL&PA=7461BEV&D1=0&D2=l&D3=11-100,102-110,131&D4=l&HDR=T,G3,G1&STB=G2&CHARTTYPE=1&VW=T

Cervellon, M. C., & Carey, L. (2011). Consumers' perceptions of 'green': Why and how consumers use eco-fashion and green beauty products. *Critical Studies in Fashion & Beauty*, *2*(1-2), 117-138

Charter, M., & Tischner, U. (Eds.). (2017). Sustainable solutions: developing products and services for the future. *Routledge*

Choi, S., & Ng, A. (2011). Environmental and economic dimensions of sustainability and price effects on consumer responses. *Journal of Business Ethics*, *104*(2), 269-282

Consumentenbond (2018). Duurzaam consumeren. Retrieved on 6 March 2019, from: https://www.consumentenbond.nl/gezond-eten/duurzaam-consumeren

Coosto (2018). Wat zijn in 2018 de beste tijdstippen om te posten op social media? Retrieved on 29 April 2019, from: https://www.coosto.com/nl/blogs/wat-zijn-2018-de-beste-tijdstippen-om-te-posten-op-social-media

Cosmetics design-europe.com (2017). Customisation and cosmetics – the changing game of make-up. Retrieved on 19 February 2019, from: https://www.cosmeticsdesign-europe.com/Article/2017/03/17/Customisation-and-cosmetics-the-changing-game-of-make-up

Cosme-de.com (n.d.). Christian Louboutin. Retrieved on 15 May 2019, from: https://nl.cosme-de.com/product-page?pdid=20189&src=googlefeed&gclid=CjwKCAjwwtTmBRBqEiwA-b6c_zgunFsTxzI6yY7QP3_Rjv892Z2h-xF3kffOAQ_keFqayQXfXvxUiBoCsZ0QAvD_BwE

Csorba, L. M., & Boglea, V. A. (2011). Sustainable cosmetics: a major instrument in protecting the consumer's interest. *Regional and Business Studies*, *3*(1), 167-176

Daily Mail (2013). That's where your missing lip gloss went! One in 10 British men secretly wear make-up… with Geordie lads beating Essex boys when it comes to piling on the slap. Retrieved on 18-2-2019, from: https://www.dailymail.co.uk/femail/article-2263472/One-10-British-men-secretly-wear-make-Geordie-lads-beat-Essex-boys-comes-piling-slap.html

Dam, Y.K. Van., & Jonge, J. De (2015). The Positive Side of Negative Labelling. *Journal of Consumer Policy, 38*(1), 19-38

De Pelsmacker, P., Driesen, L., & Rayp, G. (2005). Do consumers care about ethics? Willingness to pay for fair-trade coffee. *Journal of Consumer Affairs*, *39*(2), 363-385

Diekmann, A., & Preisendörfer, P. (1998). Environmental behavior: Discrepancies between aspirations and reality. *Rationality and Society*, *10*(1), 79-102

Douglas (n.d.). Palette Subculture Oogschaduw. Retrieved on 15 May 2019, from: https://www.douglas.nl/Make-up-Ogen-Oogschaduw-Anastasia-Beverly-Hills-Oogschaduw-Palette-Subculture_productbrand_3000071227.html

Duurzaam-Ondernemen.nl (2018). Steeds meer consumenten bereid extra te betalen voor duurzame producten of diensten. Retrieved on 6 March 2019, from: https://www.duurzaam-ondernemen.nl/steeds-meer-consumenten-bereid-extra-te-betalen-voor-duurzame-producten-of-diensten/

Dyllick, T., & Hockerts, K. (2002). Beyond the business case for corporate sustainability. *Business Strategy and the Environment, 11(*2), 130-141

Environmental Protection Agency (n.d.). Sustainability and the ROE. Retrieved on 19 February 2019, from: https://www.epa.gov/report-environment/sustainability-and-roe

European Commission (n.d.). Causes of climate change. Retrieved on 19 February 2019, from: https://ec.europa.eu/clima/change/causes_en

Ferreira, A., & Coelho, F. (2015). Product involvement, price perceptions, and brand loyalty. *Journal of Product & Brand Management, 24*(4), 349-364

Frederiks, E. R.; Stenner, K., & Hobman, E. V. (2015). Household energy use: Applying behavioural economics to understand consumer decision-making and behaviour. *Renewable and Sustainable Energy Reviews*, *41*, 1385-1394

Frontstream (2013). The three pillars of sustainability. Retrieved on 19 February 2019, from: https://www.frontstream.com/the-three-pillars-of-sustainability/https://www.frontstream.com/the-three-pillars-of-sustainability/

G20 2019 Japan (n.d.). Prime Minister Message: With great support from you all, I am determined to lead the Osaka summit towards great success. Retrieved on 25 January 2019, from: https://g20.org/en/summit/message/

Giella (n.d.). Lipstick. Retrieved on 19 February 2019, from: https://giella.com/collections/lips/products/lipstick?variant=26459466955

Glamour Magazine (2014). This is the average age girls now start wearing make-up. Retrieved on 8 March 2019, from: https://www.glamourmagazine.co.uk/article/average-age-women-girls-start-wearing-make-up-drops

Grob, A. (1995). A structural model of environmental attitudes and behaviour. *Journal of Environmental Psychology*, *15*(3), 209-220

Grunert, K. G. (2011). Sustainability in the food sector: A consumer behaviour perspective. *International Journal on Food System Dynamics*, *2*(3), 207-218

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). Multivariate Data Analysis (seventh ed.). Essex: Pearson

Hale, L. (2018). At home with sustainability: from green default rules to sustainable consumption. *Sustainability*, *10*(1), 249

Hanss, D., & Böhm, G. (2012). Sustainability seen from the perspective of consumers. *International Journal of Consumer Studies*, *36*(6), 678-687

Harpers Bazaar (2017). Bespoke beauty is set to be the biggest beauty trend of 2018. Retrieved on 19 February 2019, from https://www.harpersbazaar.com/uk/beauty/beauty-shows-trends/a13527210/bespoke-beauty-trend/

Herzberg, F., Mausner, B., & Snyderman, B. (1959). The motivation to work (second ed.). New York: John Wiley

Hoyer, W.D.; MacInnis, D.J., & Pieters, R. (2016). Consumer Behaviour (seventh ed.). United States of America, Boston: Cengage Learning

Hussain, S. S. (2000). Green consumerism and ecolabelling: a strategic behavioural model. *Journal of Agricultural Economics*, *51*(1), 77–89

Hüttel, A., Ziesemer, F., Peyer, M., & Balderjahn, I. (2018). To purchase or not? Why consumers make economically (non-) sustainable consumption choices. *Journal of Cleaner Production*, *174*, 827-836

Ici Paris XL (n.d.). Liquid Foundation. Retrieved on 30 April 2019, from: https://www.iciparisxl.nl/nl/make-up/teint/foundation/liquid-foundation/c/03010301?text=&resultsForPage=18&sort=ranking&q=%3Aranking%3AmasterBrandName%3ADIOR#product-grid-results

ING eZonomics (2013). What is the default option? Retrieved on 13 February 2019, from: https://www.ezonomics.com/whatis/the_default_option

Ingenbleek, P. T. (2015). Price strategies for sustainable food products. *British Food Journal*, *117*(2), 915-928

Jacobs, E. (2018a). Kwantitatieve Onderzoeksmethoden Hoorcollege 1. *Radboud University*

Jacobs, E. (2018b). Kwantitatieve Onderzoeksmethoden Hoorcollege 2. *Radboud University*

Jamieson, D. (1998). Sustainability and beyond. *Ecological Economics*, *24*(2-3), 183-192

Johnson, E. J., Bellman, S., & Lohse, G. L. (2002). Defaults, framing and privacy: Why opting in-opting out. *Marketing Letters*, *13*(1), 5-15

KNMI (n.d.). Zeespiegelstijging. Retrieved on 19 February 2019, from: https://www.knmi.nl/kennis-en-datacentrum/uitleg/zeespiegelstijging

Korzilius, H. (2018). Kwantitatieve Onderzoeksmethoden Hoorcollege 2. *Radboud University*

Kruidvat (n.d.). Zoekresultaat: Foundation. Retrieved on 30 April 2019, from: https://www.kruidvat.nl/search?q=foundation%3A%3AmasterBrandName%3Aessence &text=foundation&searchType=manual&page=0&size=20&sort=score

Labuschagne, C., Brent, A. C., & Van Erck, R. P. (2005). Assessing the sustainability performances of industries. *Journal of Cleaner Production*, *13*(4), 373-385

Laerd Statistics (n.d.). Mixed ANOVA using SPSS Statistics. Retrieved on 22 March 2019, from: https://statistics.laerd.com/spss-tutorials/mixed-anova-using-spss-statistics.php

Lélé, S. M. (1991). Sustainable development: A critical review. *World Development, 19*(6), 607-62

Ligthart, P. (2018). Application Lecture Factor Analysis. *Radboud University*

Livesey. S. M., & Kearins, K. (2002). Transparant and Caring Corporations?: A Study of Sustainability Reports by the Body Shop and Royal Dutch/Shell. *Organisation and Environment 15*(3), 233-258

Luchs, M. G., Brower, J. & Chitturi, R. (2012). Product Choice and the Importance of Aesthetic Design Given the Emotion-laden Trade-off between Sustainability and Functional Performance. *Journal of Product Innovation Management, 29*(6), 903-916

Marktdata.nl (2018). Driekwart van de vrouwen draagt make-up. Retrieved on 25 January 2019, from: https://www.marktdata.nl/nieuws/Driekwart-van-de-vrouwen-draagt-makeup

Mass Customisation (n.d.). Create your own custom cosmetics and makeup. Retrieved on 19 February 2019, from: https://www.mass-customization.com/custom-cosmetics/

Meise, J. N., Rudolph, T., Kenning, P., & Phillips, D. M. (2014). Feed them facts: Value perceptions and consumer use of sustainability-related product information. *Journal of Retailing and Consumer Services*, *21*(4), 510-519

Natural Products Insider (2016). Top Sustainability Concerns Facing Cosmetics Industry. Retrieved on 19 February 2019, from: https://www.naturalproductsinsider.com/beauty/top-sustainability-concerns-facing-cosmetic-industry

NCV Nederlandse Cosmetica Vereniging (2014). Jaarverslag 2013

NCV Nederlandse Cosmetica Vereniging (2018a). Duurzame Industrie. Retrieved on 25 January 2019, from: https://www.ncv-cosmetica.nl/cosmetica/duurzaam-ondernemen/

NCV Nederlandse Cosmetica Vereniging (2018b). Marktcijfers. Retrieved on 25 January 2019, from: https://www.ncv-cosmetica.nl/cosmetica/marktgegevens/

NCV Nederlandse Cosmetica Vereniging (2018c). Jaarverslag 2017

NCV Nederlandse Cosmetica Vereniging (2018d). Make up. Retrieved on 18 February 2019, from: https://www.ncv-cosmetica.nl/cosmetica/wat-cosmetica/make

NEMO Kennislink (2012). Vijf meter zeespiegelstijging. Retrieved on 19 February 2019, from: https://www.nemokennislink.nl/publicaties/vijf-meter-zeespiegelstijging-en-dan/

Nielsen (2018). Unpacking the sustainability landscape. Retrieved on 19 February 2019, from: https://www.nielsen.com/us/en/insights/reports/2018/unpacking-the-sustainability-landscape.html

NOS (2019a). Zo gaat klimaatspijbelen in de rest van Europa. Retrieved on 19 February 2019, from: https://nos.nl/video/2270833-zo-gaat-klimaatspijbelen-in-de-rest-van-europa.html

NOS (2019b). Wetenschappers steunen klimaatspijbelaars: 'Groot gelijk'. Retrieved on 19
February 2019, from: https://nos.nl/artikel/2270851-wetenschappers-steunen-
klimaatspijbelaars-groot-gelijk.html

NOS (2019c). Rutte tegen jongeren: 'We doen al veel aan klimaat, vraag niet meer'.
Retrieved on 19 February 2019, from: https://nos.nl/artikel/2270913-rutte-tegen-
jongeren-we-doen-al-veel-aan-klimaat-vraag-niet-meer.html

NOS (2019d). Zorgen over het klimaat, maar niet vliegen en minder lang douchen toch lastig.
Retrieved on 7 March 2019, from: https://nos.nl/artikel/2274833-zorgen-over-het-
klimaat-maar-niet-vliegen-en-minder-lang-douchen-toch-lastig.html

NRDC (2016). Are the Effects of Global Warming Really that Bad? Retrieved on 19 February
2019, from: https://www.nrdc.org/stories/are-effects-global-warming-really-bad

Nunnally, J. (2978). Psychometric methods. 464-465

Our World (2018). Dit zijn we bereid te betalen voor duurzame producten. Retrieved on 6
March 2019, from: https://www.ow-ourworld.nl/dit-zijn-we-bereid-te-betalen-voor-
duurzame-producten/

Padel, S., & Foster, C. (2005). Exploring the gap between attitudes and behaviour:
Understanding why consumers buy or do not buy organic food. *British Food Journal,
107*(8), 606-625

Peatty, K. (2001). Towards Sustainability: The Third Age of Green Marketing. *The Marketing
Review, 2*(2), 129-146

PETA (n.d.). Cosmetica en dierproeven. Retrieved on 17 March 2019, from:
https://www.peta.nl/onze-missie/experimenten/cosmetica-en-dierproeven/

Piller, F. T., & Müller, M. (2004). A new marketing approach to mass
customisation. *International Journal of Computer Integrated Manufacturing*, *17*(7),
583-593

Prahalad, C. K., & Ramaswamy, V. (2004). Co-creation experiences: The next practice in
value creation. *Journal of Interactive Marketing*, *18*(3), 5-14

Prakash, A. (2002). Green marketing, public policy and managerial strategies. *Business
Strategy and the Environment*, *11*(5), 285-297

Roddick, A. (1991). Body And Soul: Profits With Principles, The Amazing Success Story of
Anita Roddick & The Body Shop. New York: Crown, 86

Romero M., & Biswas (2016). "Healthy-Left, Unhealthy-Right: Can Displaying Healthy
Items to the Left (versus Right) of Unhealthy Items Nudge Healthier Choices?". *The
Journal of Consumer Research*

Roome, N. (1998). Sustainability strategies for industry: The future of corporate practice.
Island Press

Slack, N. (1994). The importance-performance matrix as a determinant of improvement
priority. *International Journal of Operations & Production Management*, *14*(5), 59-75

Spalek, T. M., & Hammad, S. (2005). The left-to-right bias in inhibition of return is due to the
direction of reading. *Psychological Science*, *16*(1), 15-18

Strawberrynet.com (n.d.). Yves Saint Laurent. Retrieved on 15 May 2019, from:
https://www.strawberrynet.com/en-nl/makeup/yves-saint-laurent/all-hours-foundation-
spf-20----/216093/?trackid=7112500001&campaign=Google+-
+PF&langboxoff=true&Currid=EUR&gclid=CjwKCAjwwtTmBRBqEiwA-
b6c__b1iEUgDk6nBMXq-
xipnZGAphdha_cw006XrotP2Z0pHBirn2dHxxoC_hIQAvD_BwE

Sunstein, C. R., & Reisch, L. A. (2013). Green by default. *Kyklos*, *66*(3), 398-402

Thaler, R. H., & Sunstein, C. R. (2008). Nudge: Improving decisions about health, wealth and
happiness. *Yale University Press*

The Body Shop (2018). Enrich not exploit, sustainability report 2017. Retrieved on 25
January 2019, from: https://www.thebodyshop.com/medias/Enrich-Not-Exploit-Report-
2017.pdf?context=pdf/h17/h04/27818345005086.pdf

The Body Shop (n.d.-a). Onze Ingrediënten. Retrieved on 19 February 2019, from:
https://www.thebodyshop.com/nl-nl/over-ons/onze-ingredienten

The Body Shop (n.d.-b). Enrich people. Retrieved on 19 February 2019, from:
https://www.thebodyshop.com/nl-nl/commitment/enrich-people

Thorndike, A. N., Sonnenberg, L., Riis, J., Barraclough, S., & Levy, D. E. (2012). A 2-phase
labeling and choice architecture intervention to improve healthy food and beverage
choices. *American Journal of Public Health*, *102*(3), 527-533

Trope, Y. & Liberman, N. (2010). Construal-Level Theory of Psychological Distance. *Psychological Review, 117*(2), 440-63

Trouw (2019). Klimaatspijbelaars: 'Niemand heft invloed op wat wij beslissen'. Retrieved on 19 February 2019, from: https://www.trouw.nl/groen/klimaatspijbelaars-niemand-heeft-invloed-op-wat-wij-beslissen-~a36151e3/

Tversky, A., & Kahneman, D. (1991). Loss aversion in riskless choice: A reference-dependent model. *The Quarterly Journal of Economics*, *106*(4), 1039-1061

Van Loo, E. J., Caputo, V., Nayga Jr, R. M., Seo, H. S., Zhang, B., & Verbeke, W. (2015). Sustainability labels on coffee: Consumer preferences, willingness-to-pay and visual attention to attributes. *Ecological Economics*, *118*, 215-225

Velema, E., Vyth, E. L., Hoekstra, T., & Steenhuis, I. H. (2017). Using nudging and social marketing techniques to create healthy worksite cafeterias in the Netherlands: intervention development and study design. *The American Journal of Clinical Nutrition*, *107*(2), 236-246

Walker, S. (2006). Sustainable by Design: Explorations in theory and practice. *Routledge*.

Winterbottom, A., Bekker, H. L., Conner, M., & Mooney, A. (2008). Does narrative information bias individual's decision making? A systematic review. *Social Science & Medicine*, *67*(12), 2079-2088

Wood, C. (2003). Environmental Impact Assessment: A Comparative Review (second ed.). England, Harlow: Pearson Prentice Hall

Appendices

For this research, Dutch interviews (as part of the pilot study) have been done. The design of the questions and introductions of this method can be seen in this appendix. First the Dutch version is shown (since this version is used) and next the English version for clarification reasons.

Dutch Pilot Study

Introductie

Ten eerste, alvast hartelijk bedankt dat u heeft ingestemd om deel te nemen aan dit interview. Dit interview heeft betrekking tot het keuzeproces bij de aankoop van make-up producten. Voornamelijk vragen met betrekking tot duurzaamheid en prijs zullen worden gesteld. Uiteindelijk hoop ik met dit onderzoek af te studeren aan de Radboud Universiteit. Het doel van dit onderzoek is om de make-up industrie advies te geven. Dit advies heeft betrekking tot het laten maken van duurzame keuzes door consumenten in het koopproces van make-up producten.

Deelname aan dit interview zal anoniem zijn en uw gegevens zullen slechts voor dit onderzoek worden gebruikt. Indien u graag tussentijds zou willen stoppen met het interview, dan hoor ik dit graag van u. Als laatste wil ik graag aangeven dat dit onderzoek is gedaan vanuit de Radboud Universiteit en dus niet vanuit een cosmeticabedrijf.

Het interview zal maximaal 45 minuten in beslag nemen, maar waarschijnlijk duurt het minder lang. Mocht u na afloop van het interview nog vragen hebben, of meer willen weten over dit onderzoek, dan hoor ik dit graag. Zou ik het interview mogen opnemen, zodat ik het later kan uitwerken?

Vragen

Prijs

1. Hoe neemt u de prijs van een make-up product mee tijdens het aankoopproces?
2. Hoe belangrijk is een lage prijs voor u bij make-up producten?
3. Wat verstaat u onder een eerlijke prijs?
4. Hoe belangrijk vindt u een eerlijke prijs? En waarom?
5. Wat verstaat u onder een eerlijke prijs bij make-up producten?

Duurzaamheid

6. Wat verstaat u onder een duurzaam product?

7. Wanneer is een product of bedrijf niet duurzaam bezig volgens u?

8. In hoeverre houdt u rekening met duurzaamheid bij uw aankopen?

    o Hoe belangrijk vindt u duurzaamheid?

    o Welke aspecten van duurzaamheid vindt u belangrijk?

9. In hoeverre houdt u rekening met de duurzaamheid van een make-up product tijdens uw aankopen?

    o Hoe belangrijk vindt u duurzaamheid bij make-up producten?

    o Welke aspecten van duurzaamheid vindt u belangrijk bij make-up producten?

Betekenis duurzaamheid

Duurzaamheid wordt gezien als het goed bezig zijn voor het milieu (bijvoorbeeld het niet gebruiken van palmolie en het gebruik van groene energie), voor het bedrijf (dat deze op zijn minst de kostprijs verdient), goed voor de mens (allergie-vriendelijke producten), dier (vegan producten), medewerkers (goede werkomstandigheden) en de samenleving (zoals het bouwen van scholen door bedrijven).

Bij bovenstaand definitie van duurzaamheid zijn ook voorbeelden gegeven van wat een bedrijf bijvoorbeeld zou kunnen doen om duurzamer te zijn.

10. Welke aspecten van de bovenstaande definitie van duurzaamheid vindt u belangrijk bij make-up producten?

11. In hoeverre houdt u rekening met bovenstaande aspecten?

12. Zou u voor uzelf een lijst kunnen maken van dingen die make-up bedrijven kunnen doen om duurzamer te zijn en deze te rangschikken van wat zij op zijn minst moeten doen, tot wat zij eventueel nog extra zouden kunnen doen? Bijvoorbeeld op zijn minst niet op dieren testen (dat is inmiddels ook verboden) tot het meest duurzame, wat niet ieder bedrijf volgens u zou moeten doen, maar wat wel erg goed is om te doen?

Prijs en duurzaamheid

13. In hoeverre zou u meer willen betalen voor een duurzamer make-up product? Waarom?

14. Wat verstaat u onder een eerlijke prijs voor een duurzaam make-up product?

15. Zijn er bepaalde aspecten van duurzaamheid waarvoor u wel, en waarvoor u niet meer zou willen betalen?

English Pilot Study

Introduction

Firstly, I would like to thank you kindly for agreeing to take part of this interview. This interview regards the choice process of the purchase of make-up products. Especially questions regarding sustainability and price will be asked. Eventually, I hope to graduate at Radboud University with this research. The purpose of this research is to give recommendations to the make-up industry. This advice will concern influencing consumers to make the sustainable choice in the buying process of make-up products.

Participation in this interview will be anonymous and data will only be used for this research. In case you would like to premature stop the interview, please do not hesitate to tell. Lastly, I would like to inform you that this research is done on behalf of Radboud University, thus not on behalf of a commercial cosmetics company.

The interview will have a maximum duration of 45 minutes, even though it will most likely take less long. Do not hesitate to contact me, in case you have any further questions after the interview, or in case you would like to know more about this research. Would it be possible for me to record the interview in order to transcribe it at a later moment?

Questions

Price

1. How do you take the price of a make-up product into account during a buying process?
2. How important is a low price regarding make-up products for you?
3. What is a fair price according to you?
4. How important is a fair price according to you? And why?
5. What is a fair price regarding make-up products according to you?

Sustainability

6. What is a sustainable product according to you?
7. When is a product or company not sustainable according to you?
8. To what extent do you take sustainability into account in your buying process?
    a. How important is sustainability according to you?
    b. What aspects of sustainability are important according to you?

9. To what extent do you take the sustainability of a make-up product into account in your buying process?

   a. How important is sustainable make-up according to you?

   b. What aspects of sustainability are important for make-up products according to you?

Meaning sustainability

Sustainability is seen as being good for the environment (for example using green energy and not using palm oil), for the company (that the company at least earns its cost price), good for humans (allergy-friendly products), for animals (vegan products), for employees (good working conditions) and for society (such as building schools).

With the above definition of sustainability, examples have been given regarding what a company could for example do to be more sustainable.

10. What aspects of the above definition of sustainability do you think are important regarding make-up products?

11. To what extent to you take care of these above aspects?

12. Could you make a list of things which make-up companies could do to be more sustainable and could you order these from what companies at least should do to what companies could do as extra effort? For example, a company should at least not test at animals (which is now forbidden) until the most sustainable, what not every company must do according to you, but what is very good to do?

Price and sustainability

13. To what extent would you be willing to pay more for sustainable make-up? Why?

14. What is a fair price for a sustainable make-up product according to you?

15. Are there certain aspects of sustainability for which you would and for which you would not be willing to pay more?

For this research, also Dutch surveys have been done. The design of the questions and introductions of this method can be seen in this appendix. First the Dutch version is shown (since this version is used) and next the English version has been attached for clarification reasons.

Dutch Online, Quantitative Experiment

Introductie

Beste mevrouw,

Alvast hartelijk bedankt voor uw deelname aan deze enquête over het keuzeproces bij de aankoop van make-up producten. Deze enquête is opgesteld voor het schrijven van mijn master thesis, waarmee ik hoop af te studeren aan de Radboud Universiteit. Ik heb een groot aantal respondenten nodig, vandaar dat ik erg blij ben dat u mij verder wilt helpen!

Om u te bedanken voor uw deelname aan deze enquête, wordt onder alle deelnemers een make-up product verloot. Het gaat hierbij om één mascara of foundation naar keuze, met een maximum waarde van 17 euro en te verkrijgen bij Kruidvat, Etos, The Body Shop of Hema.

De enquête is anoniem en de gegevens zullen uitsluitend voor onderzoek worden gebruikt. Ook als u meedoet aan de loterij, zullen uw contactgegevens niet worden gekoppeld aan de gegeven informatie, om anonimiteit te waarborgen. Daarnaast kunt u ten alle tijden stoppen met de enquête, echter zult u dan niet kunnen deelnemen aan de loterij. Dit onderzoek wordt gedaan vanuit de Radboud Universiteit en dus niet vanuit een cosmeticabedrijf.

De enquête zal ongeveer 5 tot 10 minuten in beslag nemen. Mocht u naar aanleiding van deze enquête vragen hebben of meer willen weten over dit onderzoek, neemt u dan gerust contact met mij op.

Alvast bedankt,
Michelle Welvaarts

0637386915

michellewelvaarts@hotmail.com

*Vragen***:**

1. Draagt u wel eens make-up? *Geef het antwoord, dat het best bij u past*

- Ja, 5 – 7 dagen per week
- Ja, 1 – 4 dagen per week
- Ja, minimaal een keer per maand
- Ja, alleen uitzonderlijk
- Nee, nooit -> *Door naar achtergrondvragen*

2. Welke van onderstaande make-up producten gebruikt u wel eens? *Meerdere antwoorden mogelijk*

- Foundation
- Lipstick
- Oogschaduw
- Nagellak

Geef voor de volgende make-up producten aan, welke prijs u normaal gesproken gemiddeld betaalt, of welke prijs u ervoor over zou hebben (indien u dit product niet gebruikt).

Geef alstublieft een getal zonder euroteken en gebruik (indien nodig) een PUNT als scheiding, bijvoorbeeld: 1.50

Probeer af te ronden waar mogelijk, bijvoorbeeld: 1.49 wordt 1.5 en 1.99 wordt 2

*Vul alstublieft **geen '0', 'nvt' of '€'** in als antwoord, in verband met latere vragen. Vul een prijs in, waarvan u denkt dat deze redelijk is voor het product.*

3. Welke prijs betaalt u normaal gesproken gemiddeld voor **Foundation**?_____
4. Welke prijs betaalt u normaal gesproken gemiddeld voor **Lipstick**? _____
5. Welke prijs betaalt u normaal gesproken gemiddeld voor **Oogschaduw**? _____
6. Welke prijs betaalt u normaal gesproken gemiddeld voor **Nagellak**? _____

Let goed op!: Heeft u punten (.) in plaats van komma's (,) gebruikt ter scheiding van decimalen? Bijvoorbeeld 12.80 (en dus NIET 12,80)

Duurzaamheid betekenis

Voor de volgende vragen is het belangrijk om te weten wat de betekenis van **Duurzaamheid** is:

Duurzaamheid wordt gezien als het goed bezig zijn voor het milieu (bijvoorbeeld het niet gebruiken van palmolie en het gebruik van groene energie), voor het bedrijf (dat deze op zijn minst de kostprijs verdient), goed voor de mens (allergie-vriendelijke producten), dier (vegan producten), medewerkers (goede werkomstandigheden) en de samenleving (zoals het bouwen van scholen door bedrijven)

In deze context wordt onder duurzaamheid dus NIET verstaan: levensduur of kwaliteit. De producten die aan de orde zullen komen, hebben allemaal dezelfde kwaliteit.

De volgende vragen zullen betrekking hebben tot de aankoop van foundation, lipstick, oogschaduw en nagellak. Indien u deze niet draagt, stelt u zich dan voor dat u dit wel zou doen. Wat zouden de keuzes zijn die u maakt?

Vraag 7 (a t/m c)

De volgende vragen hebben betrekking tot de keuze die u zou maken, wanneer u een foundation koopt. Geef aan welke kleur u zou kiezen en welke applicatiemethode u graag terugziet (een pompje of een schuimpje om de make-up op te doen). Geef daarna aan welke mate van duurzaamheid u in het product terug zou willen zien en welke prijs u maximaal wilt betalen. De prijs wordt automatisch aangepast aan de hand van de mate van duurzaamheid. Een korte uitleg over de mate van duurzaamheid, de foundation kleuren en de applicatiemethode is onder het keuzeproces weergegeven. U wordt verzocht per optie het meest passende antwoord te selecteren.

Figure 5. Foundation choice process most to least, default set at most sustainable option

Vraag 8 (a t/m c)

De volgende vragen hebben betrekking tot de keuze die u zou maken, wanneer u een lipstick koopt. Geef aan welke kleur u zou kiezen en of deze mat of glanzend (glossy finish) moet zijn. Geef daarna aan welke mate van duurzaamheid u in het product terug zou willen zien en welke prijs u maximaal wilt betalen. De prijs wordt automatisch aangepast aan de hand van de mate van duurzaamheid. Een korte uitleg over de mate van duurzaamheid, de kleuren en de toplaag is onder het keuzeproces weergegeven. U wordt verzocht per optie het meest passende antwoord te selecteren.

Lipstick

Kleur

Mat of Glanzend

Duurzaamheid

☑ ☐ ☐ ☐ ☐
Meest   Minst

€...   Kies ⇨

Achtergrondinformatie
Kleur: een keuze kan worden gemaakt tussen 5 verschillende kleuren
(donkerroze, rood, lichtroze, donker nude en licht nude)
Mat of glanzend: Voor de finish / toplaag van het product kan worden
gekozen voor mat of glans
Duurzaamheid: een keuze kan worden gemaakt tussen verschillende maten
van duurzaamheid. Duurzaamheid wordt gezien als het goed bezig zijn voor het
milieu (bijvoorbeeld het niet gebruiken van palmolie en het gebruik van groene
energie), voor het bedrijf (dat deze op zijn minst de kostprijs verdient), goed
voor de mens (allergie-vriendelijke producten), dier (vegan producten),
medewerkers (goede werkomstandigheden) en de samenleving (zoals het
bouwen van scholen door bedrijven)

Figure 6. Lipstick choice process most to least, default at most sustainable option

Vraag 9 (a t/m c)

De volgende vragen hebben betrekking tot de keuze die u zou maken, wanneer u een
oogschaduw koopt. Geef aan welke kleur u zou kiezen en of deze mat of glanzend (glossy
finish) moet zijn. Geef daarna aan welke mate van duurzaamheid u in het product terug zou
willen zien en welke prijs u maximaal wilt betalen. De prijs wordt automatisch aangepast aan
de hand van de mate van duurzaamheid. Een korte uitleg over de mate van duurzaamheid, de
kleuren en de toplaag is onder het keuzeproces weergegeven. U wordt verzocht per optie het
meest passende antwoord te selecteren.

Oogschaduw

Kleur

Mat of Glanzend

Duurzaamheid

Meest   Minst

€...   Kies ⇨

Achtergrondinformatie
Kleur: een keuze kan worden gemaakt tussen 5 verschillende kleuren bruin, van lichtbruin tot donkerbruin
Mat of glanzend: Voor de finish / toplaag van het product kan worden gekozen voor mat of glans
Duurzaamheid: een keuze kan worden gemaakt tussen verschillende maten van duurzaamheid. Duurzaamheid wordt gezien als het goed bezig zijn voor het milieu (bijvoorbeeld het niet gebruiken van palmolie en het gebruik van groene energie), voor het bedrijf (dat deze op zijn minst de kostprijs verdient), goed voor de mens (allergie-vriendelijke producten), dier (vegan producten), medewerkers (goede werkomstandigheden) en de samenleving (zoals het bouwen van scholen door bedrijven)

Figure 7. Eyeshadow choice process most to least, without default

Vraag 10 (a t/m c)

De volgende vragen hebben betrekking tot de keuze die u zou maken, wanneer u een nagellak koopt. Geef aan welke kleur u zou kiezen en of deze mat of glanzend (glossy finish) moet zijn. Geef daarna aan welke mate van duurzaamheid u in het product terug zou willen zien en welke prijs u maximaal wilt betalen. De prijs wordt automatisch aangepast aan de hand van de mate van duurzaamheid. Een korte uitleg over de mate van duurzaamheid, de kleuren en de toplaag is onder het keuzeproces weergegeven. U wordt verzocht per optie het meest passende antwoord te selecteren.

Figure 8. Nail polish choice process most to least, without default

Betekenis duurzaamheid

Duurzaamheid wordt gezien als het goed bezig zijn voor het milieu (bijvoorbeeld het niet gebruiken van palmolie en het gebruik van groene energie), voor het bedrijf (dat deze op zijn minst de kostprijs verdient), goed voor de mens (allergie-vriendelijke producten), dier (vegan producten), medewerkers (goede werkomstandigheden) en de samenleving (zoals het bouwen van scholen).

Vragen prijs en duurzaamheid

Geef voor de volgende stellingen aan in hoeverre u het eens bent op een schaal van helemaal oneens tot helemaal mee eens? (helemaal oneens – oneens – neutraal – eens – helemaal mee eens)

11. Wanneer ik een make-up product koop, houd ik me zowel erg bezig met een lage prijs, als ook met een hoge kwaliteit van het product.
12. Ik vergelijk prijzen van verschillende merken van make-up om er zeker van te zijn dat ik zo veel mogelijk waarde krijg voor mijn geld.

13. Een lage prijs is iets dat ik erg belangrijk vind bij make-up producten.

14. De duurzaamheid van make-up varieert erg met de prijs van het product.

15. Ik hecht grote waarde aan een eerlijke prijs bij make-up.

16. Een eerlijke prijs is iets dat ik erg belangrijk vind bij make-up.

17. Ik hecht grote waarde aan de duurzaamheid van make-up.

18. Duurzame make-up is iets wat ik erg belangrijk vind.

Hoe belangrijk zijn de volgende factoren met betrekking tot make-up voor jou op basis van de hieronder benoemde schaal van 1 tot 5?

(1) Het is niet echt belangrijk
(2) Het is alleen een probleem als het onder een minimum standaard komt
(3) Het is handig, maar niet cruciaal voor mij
(4) Het is erg belangrijk voor mijn tevredenheid
(5) Het is cruciaal voor mij om tevreden te zijn

19. Duurzaamheid

20. Lage prijs

21. Eerlijke prijs

Achtergrondvragen product

22. Koopt u uw make-up producten in zijn algemeen vooral online, of in een fysieke winkel? *Eén antwoord mogelijk*
    - o Vooral online
    - o Vooral in een fysieke winkel
    - o Beiden evenveel

23. Geef aan of de volgende stelling op u van toepassing is: Ik probeer alleen duurzame make-up te kopen. *Eén antwoord mogelijk*
    - o Waar
    - o Soms
    - o Niet waar

Achtergrondvragen persoon

24. Wat is uw leeftijd? *Eén antwoord mogelijk*

- o 0 tot en met 11 jaar
- o 12 tot en met 18 jaar
- o 19 tot en met 24 jaar
- o 25 tot en met 34 jaar
- o 35 tot en met 44 jaar
- o 45 tot en met 54 jaar
- o 55 tot en met 64 jaar
- o 65 jaar en ouder

25. Wat is uw hoogst afgeronde opleiding? *Eén antwoord mogelijk*

- o Basisonderwijs
- o VMBO/MAVO/VBO
- o HAVO/VWO
- o MBO (Middelbaar beroepsonderwijs)
- o HBO (hoger beroepsonderwijs)
- o WO (wetenschappelijk onderwijs)
- o Anders, namelijk….

Bedankt voor uw deelname aan deze enquête. U helpt me hier zeer bij!

Vul hieronder uw e-mailadres in, indien u kans wilt maken op het winnen van een mascara of foundation naar keuze, met een maximumwaarde van €17,- van de winkels Kruidvat, Etos, The Body Shop of Hema. Uw e-mailadres zal niet worden gekoppeld aan uw gegeven antwoorden. Uiterlijk één maand na het beëindigen van deze enquête zal per mail contact worden gezocht met de winnaar.

E-mailadres invullen

English Online, Quantitative Experiment

Introduction

Dear Madam,

I would like to thank you kindly for agreeing to take part of this survey about the choice process regarding the purchase of make-up products. This survey has been made in order to write my master thesis, with which I hope to graduate at Radboud University. I need a large number of respondents, therefore I am very pleased that you are willing to help me!

In order to thank you for your participation to this survey, a lottery has been set up among all respondents. With this lottery, a mascara or foundation of choice, with a maximum value of 17 euros and available at Kruidvat, Etos, The Body Shop or Hema can be won.

The survey is anonymous and data will exclusively be used for research. When you take part of the lottery, contact information will not be linked to the given data in the survey, in order to guarantee anonymity. Additionally, you can at all times stop with this survey. However, this would mean that you cannot take part of the lottery. This research is being done on behalf of Radboud University, thus not on behalf of a commercial cosmetics company.

The survey will have a duration of approximately 5 to 10 minutes. Please do not hesitate to contact me, in case you have any further questions in response to the survey questions or if you would like to know more regarding this research.

I would like to thank you in advance,

Michelle Welvaarts

0637386915

michellewelvaarts@hotmail.com

1. Do you wear make-up? *Give the answer that fits you best*

- Yes, 5 – 7 days per week
- Yes, 1 – 4 days per week
- Yes, at least one time per month
- Yes, only exceptional
- No, never -> *Proceed to background questions*

2. Which of the make-up products below do you use? *Multiple answers possible*

- Foundation
- Lipstick
- Eyeshadow
- Nail polish

Indicate for the following make-up products, which price you normally, on average pay, or which price you would be willing to pay (in case you do not use this product).

*Please give a number without euro sign and use (when necessary) a **DOT** as separation, for example: 1.50*

Try to round where possible, for example: 1.99 becomes 2

*Please do **not** fill in a '0', 'nvt', or '€' as answer, because of later questions. Please fill in a price which you think is reasonable for the product.*

3. What price do you normally pay on average for **Foundation**?_____
4. What price do you normally pay on average for **Lipstick**? _____
5. What price do you normally pay on average for **Eyeshadow**? _____
6. What price do you normally pay on average for **Nail polish**? _____

Be careful!: Did you use dots (.) instead of commas (,) for separation of decimals? For example 12.80 (so Not 12,80)

Sustainability meaning

For the following questions it is important to know what the meaning of **Sustainability** is:

Sustainability is seen as being good for the environment (for example using green energy and not using palm oil), for the company (that the company at least earns its cost price), good for
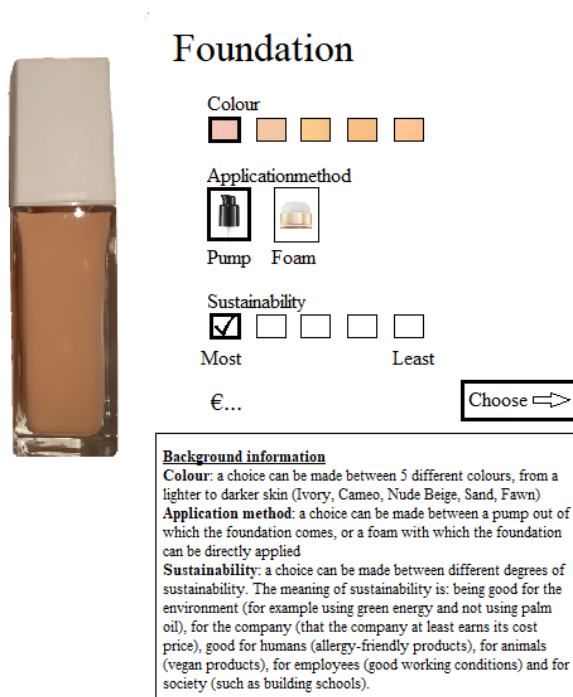
humans (allergy-friendly products), for animals (vegan products), for employees (good working conditions) and for society (such as building schools).

In this context the meaning of sustainability is NOT: lifespan or quality. The products which will be discussed, all have the same quality.

The following questions will regard the purchase of foundation, lipstick, eyeshadow and nail polish. In case you do not wear these, please imagine you do. What would be the choices you make?

Question 7 (a to c)

The following questions relate to the choice you would make, when you buy a foundation. Please indicate which colour you would choose and which application method you would like to have (a pump or a foam to put your make-up on). Next, indicate which degree of sustainability you would like the product to have and which price you would maximally be willing to pay. The price will automatically be adjusted on the basis of the degree of sustainability. A short explanation regarding the degree of sustainability, the foundation colours and the application method has been shown below the choice process. Please select per option the most suitable answer.

Figure 9. Foundation choice process most to least, default set at most sustainable option

Question 8 (a to c)

The following questions relate to the choice you would make, when you buy a lipstick. Please indicate which colour you would choose and whether this should have a matt or glossy finish. Next, indicate which degree of sustainability you would like the product to have and which price you would maximally be willing to pay. The price will automatically be adjusted on the basis of the degree of sustainability. A short explanation regarding the degree of sustainability, the colours and the finish has been shown below the choice process. Please select per option the most suitable answer.

Figure 10. Lipstick choice process most to least, default at most sustainable option

Question 9 (a to c)

The following questions relate to the choice you would make, when you buy eyeshadow. Please indicate which colour you would choose and whether this should have a matt or glossy finish. Next, indicate which degree of sustainability you would like the product to have and which price you would maximally be willing to pay. The price will automatically be adjusted on the basis of the degree of sustainability. A short explanation regarding the degree of sustainability, the colours and the finish has been shown below the choice process. Please select per option the most suitable answer.

Eyeshadow

Colour

Matte or Glossy

Sustainability

Most   Least

€…   Choose ⟹

Background information
Colour: a choice can be made between 5 different colours brown, from light brown to darker brown.
Finish: the product may have a matte or glossy (shiny) finish
Sustainability: a choice can be made between different degrees of sustainability. The meaning of sustainability is: being good for the environment (for example using green energy and not using palm oil), for the company (that the company at least earns its cost price), good for humans (allergy-friendly products), for animals (vegan products), for employees (good working conditions) and for society (such as building schools).

Figure 11. Eyeshadow choice process most to least, without default

Question 10 (a to c)

The following questions relate to the choice you would make, when you buy nail polish. Please indicate which colour you would choose and whether this should have a matt or glossy finish. Next, indicate which degree of sustainability you would like the product to have and which price you would maximally be willing to pay. The price will automatically be adjusted on the basis of the degree of sustainability. A short explanation regarding the degree of sustainability, the colours and the finish has been shown below the choice process. Please select per option the most suitable answer.

Nail polish

Colour

Matte or Glossy

Sustainability

Most   Least

€...   Choose ⇨

Background information
Colour: a choice can be made between 5 different colours (dark pink, red, light pink, dark nude and light nude).
Finish: the product may have a matte or glossy (shiny) finish
Sustainability: a choice can be made between different degrees of sustainability. The meaning of sustainability is: being good for the environment (for example using green energy and not using palm oil), for the company (that the company at least earns its cost price), good for humans (allergy-friendly products), for animals (vegan products), for employees (good working conditions) and for society (such as building schools).

Figure 12. Nail polish choice process most to least, without default

Meaning sustainability

Sustainability is seen as being good for the environment (for example using green energy and not using palm oil), for the company (that the company at least earns its cost price), good for humans (allergy-friendly products), for animals (vegan products), for employees (good working conditions) and for society (such as building schools).

Questions price and sustainability

To what extent do you agree with the following statements on a scale of 1 strongly disagree until 5 strongly agree? (strongly disagree, disagree, neutral, agree, strongly agree)

11. When I buy a make-up product I am very concerned about low prices, but I am equally concerned about product quality.
12. I compare the prices of different brands of make-up to be sure I get the best value for the money.
13. I attach great importance to a low price regarding make-up products.
14. The sustainability degree of make-up varies with its price.
15. I attach great importance to a fair price regarding make-up.

16. A fair price regarding make-up is something that I value a lot.

17. I attach great importance to the sustainability of make-up.

18. Sustainable make-up is something that I value a lot.

How important are the following factors for you regarding make-up products on the basis of the below mentioned scale of 1 to 5?

(1) It is crucial to our satisfaction

(2) It is very important to our satisfaction

(3) It is useful but not vital to us

(4) Only an issue if it falls below a minimum standard

(5) Not usually important

19. Sustainability

20. Low price

21. Fair price

Background questions

22. Do you in general buy your make-up mostly online, or in a physical store? *One answer possible*

  o Mostly online

  o Mostly in a physical store

  o Both equally

23. Please indicate whether the next statement is applicable to you: I try to only buy sustainable make-up. *One answer possible*

  o True

  o Sometimes

  o Not true

24. What is your age?

- o   0 to 11 years
- o   12 to 18 years
- o   19 to 24 years
- o   25 to 34 years
- o   35 to 44 years
- o   45 to 54 years
- o   55 to 64 years
- o   65 years and older

25. What is the highest education you graduated for? *One answer possible*

- o   Primary School
- o   Lower Secondary Education
- o   Higher Secondary Education / Pre-University Education
- o   Intermediate Vocational Education
- o   Higher Vocational Education
- o   University Education
- o   Other, namely….

Thank you for your participation in this survey. Please fill in your e-mail address, in order to have a chance of winning a mascara or foundation of choice, for a maximum value of €17,- of the stores Kruidvat, Etos, The Body Shop or Hema. Your e-mail address will not be linked to your given answers. One month after ending this survey, contact will be made via mail with the winner of the lottery.

Fill in e-mail address

_____

This appendix provides a detailed project plan (Table 9). The week numbers and some specific dates have been provided, combined with activities that have to be done, important milestones, places of where the activities take place and persons who will be involved.

Table 9

Project plan

Week // Day	Activity	Milestone	Place	Involved
51 // 20 December 2018	Thesis Circle Meeting 1		RU	Thesis circle
4 // 25 January 2019	Hand in Chapter 1 thesis	Chapter 1	E-mail	MW at GA
5 //29 January 2019	Thesis Circle Meeting 2		RU	Thesis circle
8 // 21 February 2019	Hand in Chapter 1 and 2 thesis	Chapter 1 and 2	E-mail	MW at GA
9 // 25 February 2019	Thesis Meeting 3		RU	MW and GA
11 // 11 March 2019	Hand in Chapter 1, 2 and 3 thesis	Chapter 1, 2 and 3	E-mail	MW at GA
11 // 14 March 2019	Thesis Meeting 4		RU	MW and GA
13 // 29 March 2019	**Hand in Research proposal**	**Research proposal**	**Two Electronic versions**	**MW at GA and second examiner**
15 // 12 April 2019	Assessment Research proposal, Receive Go / No Go			GA and second examiner at MW
17 // 26 April 20 // 13 May 2019	*In case of No Go, hand in Research proposal*	*Research proposal in case of No Go*	*Two Electronic versions*	*MW at GA and second examiner*
17	Make operationalisation		Individually	MW
18	Thesis Meeting 1 operationalisation		RU	MW and GA
18	Fine-tune operationalisation and execute pilot study		Individually	MW + participants
19 // 6 May 2019	Start quantitative, online experiment	Publish survey	Online	MW + Participants
19/20	Analyse pilot study		Individually	MW
20	Thesis Meeting 2 preliminary results / fieldwork		RU	MW and GA
20 // 13 May 2019	Send reminder quantitative, online experiment		Individually	MW
20 // 17 May 2019	End quantitative, online experiment			

21	Analyse quantitative, online experiment		Individually	MW
22	Combine results pilot study and quantitative, online experiment, and write conclusions		Individually	MW
22	Thesis Meeting 3 analysis and conclusions		RU	MW and GA
22/23	Fine-tune master thesis		Individually	MW
24	Thesis Meeting 4 final thesis		RU	MW and GA
25 // 17 June 2019	**Submit master thesis**	**Master thesis**	**Electronic**	**MW at GA and second examiner**
	Submit supplementary documents *		**Electronic**	**MW at secretary of Business Administration**
26/27	**Defence**	**Defence**	**RU**	**MW, GA and second examiner**
26	*Submit adjustment master thesis (in case of not good enough)*	*Submit adjustment master thesis*	*Electronic*	*MW, GA and second examiner*
27	*Defence adjustment master thesis (in case of not good enough)*	*Defence adjustment master thesis*	*RU*	*MW, GA and second examiner*
33	*Submit second chance master thesis (in case of insufficient)*	*Second chance (insufficient) master thesis*	*Electronic*	*MW, GA and second examiner*
34	*Defence second chance master thesis (in case of insufficient)*	*Defence second chance (insufficient) master thesis*	*RU*	*MW, GA and second examiner*

Notes. Legend:

- MW = Michelle Welvaarts
- GA = Gerrit Antonides (Supervisor)
- RU = Radboud University

* Supplementary documents: abstract thesis, Research Integrity Form (Appendix 6 Handbook), Consent Form for submitting a thesis in the Radboud thesis repository (Appendix 7 Handbook).

This Appendix extensively discusses the five principles of research ethics (APA, 2003). These are: discuss intellectual property frankly; be conscious of multiple roles; follow informed-consent rules; respect confidentiality and privacy; and tap into ethics resources.

In order to frankly discuss intellectual property, it is important to mention a few things (APA, 2003). The researcher of this report has full Copyright of this report. The name of this researcher and the location of the thesis will have to be fully mentioned, as stated by the provisions of the Copyright Act. This report, as part of a master thesis project, will remain the property of the Nijmegen School of Management. Radboud University Nijmegen may archive this report for a minimum period of seven years (starting in 2019) and may make, wherever possible and allowed, the thesis available to potential users inside and outside Radboud University. Since copyright is not transferred, the researcher of this report can at any time revoke the consent for publication. The exact rights and obligations of both this researcher and Radboud University Nijmegen can be requested at the "Nijmegen School of Management Master Thesis Handbook for Business Administration" of Radboud University.

The second principle of research ethics discusses the consciousness of the multiple roles of the researcher (APA, 2003). It is important to not impair professional performance, or exploit or harm others. The researcher of this report had to separate both formal and informal roles during research. For doing this, participants were told that participation was voluntary and that information of that person, gathered during the research, will only be used for the research and not in private situations. The researcher avoided harmful relationships.

Thirdly, the researcher followed informed-consent rules in order to ensure that "individuals are voluntarily participating in the research with full knowledge of relevant risks and benefits" (APA, 2003). Participants were informed about:

- "The purpose of this research, expected duration and procedures" (APA, 2003). The purpose is: gathering and analysing information regarding the topic, and giving recommendations to the industry. In order to prevent bias, it has only been said that this survey was about the choice process regarding make-up products, and not that it was also about sustainability. The duration was, depending on the method, 10 minutes until 45 minutes maximum. The procedures of this research were: inviting someone to take part of the research, having the research (interview and/or survey) and before and after the interview answering questions.

- "Participants' rights to decline to participate and to withdraw from the research once it has started, as well as the anticipated consequences of doing so" (APA, 2003). The consequence was: not being able to have good representativity and validity in this research. Therefore this research will be less valuable for the industry. To avoid this, a lottery has been set up, where people can win an incentive.

- "Reasonably foreseeable factors that may influence their willingness to participate, such as potential risks, discomfort or adverse effects" (APA, 2003). Discomfort could have been present when talking about sustainability.

- "Any prospective research benefits" (APA, 2003). This research gained insights and gave recommendations for managerial and practical use in the make-up industry.

- "Limits of confidentiality, such as data coding, disposal, sharing and archiving, and when confidentiality must be broken" (APA, 2003). Respondents remain anonymous. Names and e-mail-addresses have not been linked to given information in the study, and have been removed from the information-sheet after having done the lottery of the contest. Confidentiality has not been and will not be broken. The report has been shared via Radboud University, while still honouring confidentiality and anonymity.

- "Incentives for participation" (APA, 2003). An incentive of the lottery has been won by one person for joining and finishing the quantitative, online experiment. The names and addresses of persons joining the lottery have not been linked to the given answers.

- "Who participants can contact with questions" (APA, 2003). The researcher of this report is the contact person.

Since this research is about choice architecture, participants may get in contact with this researcher if required. Questions could have been asked and a debrief could have taken place.

The fourth principle of research ethics is about respecting confidentiality and privacy (APA, 2003). It has been made clear that participants may refuse to take part of the research, that they can stop participating at any time and that information will be held confidentially. Data has been analysed, without linking it to names or e-mail-addresses (anonymity). Records (of the interviews), transcripts and data have been stored on one laptop, which can only be opened via a password. The final report has been shared via Radboud University.

Lastly, it is important to tap into ethics resources to not harm the participant. When a dilemma occurred, the researcher considered the APA's Ethics Code (APA, 2017).

Table 10 shows the interview planning of the pilot study.

Table 10

Interview Planning

Date	Respondent
18 April 2019	Woman, 55 years old, higher budget. Later her husband made some notes
20 April 2019	A couple of 2 women, both 24 years old, one of them is a vegetarian
28 April 2019	Mother (45 years old) and daughter (18 years old)
1 May 2019	Woman, 23 years old, Master student
2 May 2019	Woman, 32 years old, employee sustainable company

Figure 13. Appearance of experiment on laptop, Most to least sustainable, default at least sustainable

This appendix shows an extensive explanation of some of the results of Chapter 4, based on statistical analyses. First the pilot study will extensively be elaborated upon and later the online, quantitative experiment.

Pilot study

Results pilot study

For the pilot study, five interviews have been done with seven different women. The interview planning including (anonymous) background information on the respondents can be seen in Appendix E. Respondents were 12 to 55 years old. One respondent is a student at Radboud University, one woman works at a company which core business is sustainability, one couple of respondents consisted of a mother and daughter, and one couple consisted of two women of who one is a vegetarian. One respondent of the high earners segment took part of the conversation, while her husband was in the same room. He made some good additions to the conversation. The transcripts of the interviews can be requested at the researcher of this report.

Price

The pilot study revealed several things. Firstly, the prices respondents are willing to pay differ per make-up product and per respondent. Some respondents mentioned to buy the lower priced products as long as the quality was high enough. Cheap products are not necessarily bad according to them. Others disagree and are beforehand willing to pay more for higher quality. Even though some of them sometimes are willing to try lower priced products, they in the end often still decided to switch back to the more familiar ones. Mostly, once these respondents like a product, they do not want to switch anymore. One respondent mentioned to not be willing to pay a too high price, since then 'it is the brand that you pay for'. However, another respondent stated that she actually is willing to pay more for this brand experience and relating quality. Lastly, multiple respondents mentioned to only buy the product when it was in sale, in order to get high quality for a low price.

A fair price is mostly seen as the value for money for consumers, but also as a good price for the owner and employees of a company. Still, even though they say this, people are often willing to go for the lowest price for the highest quality. Products are for example still bought in sale. Therefore, the unanswered question set by one respondent was: do producers really ask fair prices and if that is the case, do I really want to pay a fair price?

Concludingly, regarding prices it appears that most respondents think that a more expensive product also results in a higher quality. Additionally, even though respondents claim to find fair prices for consumers, owners and employees very important, they are not always sure whether they actually pay fair prices.

Sustainability

It became clear that sustainability (Dutch: 'duurzaamheid') was often seen as the lifespan or value for money of a product. Respondents were often willing to pay more for this. Three respondents immediately explained sustainability as intended. They mentioned that acting sustainable has to do with natural, bio-materials; recycling; the way of shipping; not affecting new generations; environmentally-friendly products; no child labour and no animal-testing. This was also mostly agreed upon by the other respondents, after having explained the meaning of sustainability more clearly. Regarding non-sustainable actions, some respondents stated that it is not sustainable for a company to say to be sustainable, but to not act like it.

When ranking the several aspects of sustainability, it appears that, in general, firstly working conditions and then animal testing are seen as very important. Being good for the environment and offering society help are seen as nice to do, but not necessary. Regarding child labour opinions differ. Some say that it must be possible for children to work, provided that the child likes to work. Others are absolutely against child labour. One respondent mentions to find it important for companies to at least communicate and be open about its processes and to help its suppliers. No respondent says to find vegan make-up products important, however two respondents say that their friends are vegan (because of health problems) and that they take vegan products into account when meeting with them. Allergy friendly products are only seen as important when the respondent actually has an allergy.

Often respondents claim to find sustainability important. However, even though they know a product is not sustainable, they say to still buy the product because of financial reasons. In addition, mostly respondents do not even know or investigate whether a product actually is sustainable. In order to be willing to buy a more sustainable make-up product, one respondent suggested to design refill-packages for make-up.

Multiple respondents state to find (environmental) sustainability more important for other products than for make-up. One respondent thinks that this is the case, since make-up products are small products. Other respondents mention the fact that they do not directly know how sustainability is related to make-up products, especially for the environment. It is

easier to form an image regarding child labour and animal testing. Lastly, some respondents question whether the environmental problems are really that big.

Price and sustainability

Not many respondents are willing to pay a higher price for the several aspects of sustainability, unless it in the ends yields more money (as solar panels do), or unless quality is also better. Some respondents say to be willing to pay 1 to 3 euros more for the more sustainable product. They, however, were not sure what aspects of sustainability this make-up product then should contain. One respondent says that a label covering some standards could help with this. Two respondents question whether it would really help to choose the more sustainable product, since one small change will, according to them, not change the whole environment. Additionally, one of them questions whether it then would really be better for the environment. This should be proven in order for people to have trust and to actually buy the more sustainable product.

Multiple respondents state that a label could help making the right choices regarding sustainable make-up. However, some also state that such labels often make the product more expensive and that they do not want to pay for this. Others state that they would, on the short-term, not trust the label if the prices of the sustainable product would be the same, instead of higher than other products. If the prices of the more sustainable products would be lower, some respondents state to be willing to buy that product instead of the less sustainable one. Despite these comments, respondents still mention that labels could give more insight into the sustainability of products, that it can help make the right choices and that it can result in trust.

Adjustments survey based on pilot study

Since after having spoken to five respondents it already became clear that people thought relatively the same about sustainability and prices regarding make-up, it has been chosen to already start distributing the survey. Still, the remaining two interviews were done, in order to make sure to not miss any information for the report. Indeed no new relevant information regarding the survey was obtained.

As explained in Chapter 4, it was hard to match the sustainability degrees with prices of make-up products, even based on the pilot study. It became clear that people buy several kinds of products, ranging from, in case of for example foundation, around €4,- (Essence) to €55,- (Dior) (Kruidvat, n.d.; Ici Paris XL, n.d.). This made it hard to make a correct scale.

Therefore, it has been chosen to let consumers give a price which they on average paid for the several make-up products (Questions 3 to 6, Appendix B). Based on this reference price, the 5-points scale has been made from a 0% price increase to a 20% increase. Beforehand, it was also asked which of the four make-up products consumers use (Question 2). Even if consumers did not use all make-up products, they were still able to take part of the whole experiment, since Question 2 made it possible to make a distinction between the answers of users and non-users. If a respondent already in Question 1 mentioned to not use make-up at all, he or she was immediately directed to the final questions (24 and 25) of the survey.

Online, quantitative experiment

Sample information

In the experiment, respondents were able to choose the colour, application method or finish which they wanted their make-up product to have. The combined results of all respondents can be seen in Table 11.

Table 11

Descriptive statistics of nominal variables make-up products

Variable	Values	Frequency	%
Foundation Colour	Ivory	136	42.4
	Cameo	106	33.0
	Nude Beige	29	9.0
	Sand	28	8.7
	Fawn	22	6.9
Foundation Application Method	Pump	287	89.4
	Foam	34	10.6
Lipstick Colour	Dark pink	87	27.1
	Red	36	11.2
	Light pink	43	13.4
	Dark nude	33	10.3
	Light nude	122	38.0
Lipstick Finish	Matt	225	79.1
	Shiny	96	29.9
Eyeshadow Colour	Very light brown	48	15.4
	Light brown	81	26.0
	Brown	127	40.7
	Dark brown	40	12.8
	Very dark brown	16	5.1
Eyeshadow Finish	Matt	190	59.2
	Shiny	131	40.8
Nail Polish Colour	Dark pink	110	34.3
	Red	39	12.1
	Light pink	38	11.8
	Dark nude	36	11.2
	Light nude	98	30.5

| Nail Polish Finish | Matt | 109 | 34.0 |
| | Shiny | 212 | 66.0 |

Note. % = percentage

Response

The online quantitative experiment has been put online on the first of May 2019 and taken offline on the seventh of May 2019. In total, 330 respondents completed the survey. Since it has been distributed online, it is unclear what the response rate is. The several parts of the experiment (one part is e.g. foundation and lipstick most to least with default, and eyeshadow and nail polish most to least without default) contained each at least 45 respondents and were equally distributed in Qualtrics. 80 respondents have not completed the survey, perhaps they found it too lengthy or not relevant enough for their situation. These respondents have been excluded. Relevant missing data only existed in the experiment, since multiple respondents made mistakes in Questions 3 to 6 (as previously explained). Still, after having excluded the missing values, each category, existing of at least two parts (e.g. Figure 4 category 1), still contained at least 76 respondents without any missing values. This exceeds the minimum sample size of 30 respondents per category (central limit theorem).

A missing value analysis has been executed by using SPSS. As the tables Univariate Statistics and EM Means (Table 13 and 14, Appendix H) show, all make-up products have missing values ranging from 14.2 to 20.6 percent. These are problematic values, since they are higher than 10%. Little's MCAR test shows that $\chi^2(28) = 50,298$, $p < .05$. Therefore it is necessary to reject the Null-Hypotheses. Missing values are not completely at random, they are MAR (Missing At Random). It depends on the make-up product, whether the values are missing. Logical explanations for this are the fact that many respondents said to not buy such products and thus wrote a zero as answer, which made the answer missing. Also mistakes have been made regarding the usage of comma's and dots. A Missing Value Analysis combining the questions regarding which products respondents use and which prices respondents are willing to pay also showed, that the product foundation was most often given a price by people who actually use foundation (Tables 15 to 19, Appendix H). This also is the case for people who wear lipstick, eyeshadow and nail polish. They have, as expected, the least missing values when giving prices for the relating product.

Regarding age it appeared, that people of 12 to 18 years, 35 to 44 years and 65 years and older participated less often in the survey. Perhaps this is the case, since the researcher of

this report has less connections with these age groups. These groups contained respectively 5.8%, 4.5% and 3.9 of all answers regarding age. Regarding education, the two groups 'HAVO/VWO' (secondary education/pre-university education) and 'elementary school' as highest education had slightly less respondents than other groups. Perhaps this is the result of the smaller amount of younger people who participated in the survey.

For the representativity of the survey the variables "Age", "Education" and ´Make-up use" have been looked at. The Chi-Squares for these variables all showed significant results with an alfa of $< .3$ (Table 20 to 25, Appendix H). Based on Chi-Square, results are not very representative. Age, $\chi^2(6, N=330) = 1432,662$, $p < .001$; Education, $\chi^2(6, N=330) = 280,240$, $p < .001$; and Wearing make-up, $\chi^2(4, N=330) = 543,939$, $p < .001$.

Test for normality

For the normality of sampling distribution of means, the skewness and kurtosis of variables have been checked based on Table 2, Chapter 4. It appeared that a few variables were (slightly) skewed. However, it was not possible to improve the variables to appropriate levels. The combined variable regarding the foundation colour chosen has a positive skewness. "Lowprice1", "lowprice2", "fairprice2" and "importance fair price" (Appendix G, Table 12) all show a negative skewness. Even after transforming, it was only possible to improve importance fair price. The sustainability scale least to most of nail polish shows a slightly higher kurtosis than |3|. However, after transforming, skewness worseness. Therefore, the original scale has been preserved. Lastly, the prices given for the several make-up products by respondents both have a high skewness and kurtosis. Again it was not possible to improve these.

Preliminary analysis

Several questions have been asked in the online, quantitative experiment/survey, regarding the importance of the sustainability degree of the make-up product (Questions 17, 18 and 19) and of the importance of the perceived low and fair prices (Questions 11 to 16, and 20 and 21). Questions 11 to 18 and their items (totally disagree to totally agree on a 5-points scale) have been based upon Ferreira and Coelho (2015), whereas Questions 19 to 21 and their items (not that important to crucial on a 5-points scale) have been based upon Slack (1994). By using this literature, reliability of this research has been increased.

It has been tried to combine both scales of Ferreira and Coelho (2015) and Slack (1994). However, only for the factor sustainability this resulted in a high enough Cronbach's Alpha. The Cronbach's alpha if item deleted was still higher (α = .741 compared to α = .714). Therefore both scales have been kept apart. For the scales of Ferreira and Coelho (2015), Cronbach's Alpha has again been looked at and resulted in α = .741 for 'Sustainability' and α = .702 for 'fair price'. These are both sufficient. Still, for both these variables Cronbach's Alpha could be increased to respectively .939 and .887 by deleting the variable 'Sustainability of make-up varies hugely with the price of the product' (Tables 29 and 30, Appendix H). This variable now is included in both factors. For the factor 'Low price' α = .466. Even after deleting the variable 'A low price is something that I value a lot', the highest alpha that can be achieved is α = .514 (Table 28, Appendix H). This is not sufficient.

Common factor analysis

In order to make sure the factors have good loadings and since the scale of Ferreira and Coelho was adjusted to the variables needed in this research, an common factoring analysis has been done. Before doing the factor analysis, the descriptive statistics of the several scale items of Ferreira and Coelho (2015) have been looked at (Table 12). Regarding Skewness and Kurtosis, the absolute value of |3| has been looked at as cut-off point. No kurtosis was found. However, low price items 1 and 2 and fair price item 2 all showed a negative skewness. Regarding the scale of Slack (1994) without multiple items, the importance of a fair price showed a negative skewness. All other variables have a normal distribution.

Table 12

Descriptive statistics of scale variables and items

Variable	Scale	Measurement level	N	Mean	S.D.	Skewness Estimate S.E.		Kurtosis Estimate S.E.	
Low price	Likert 1 – 5	Ordinal	321						
1				3.86.	1.069	-.716	.136	-.128	.271
2				3.52	1.265	-.540	.136	-.762	.271
3				2.95	1.127	-.013	.136	-.625	.271
Eerlijke prijs	Likert 1 – 5	Ordinal	321						
1				3.57	.916	-.181	.136	.098	.271
2				3.63	1.056	-.416	.136	-.505	.271
3				3.61	.991	-.388	.136	-.191	.271
Duurzaamheid	Likert 1 – 5	Ordinal	321						
1				3.11	1.132	-.032	.136	-.743	.271
2				3.12	1.165	-.017	.136	-.804	.271
Importance low price	Likert 1 – 5	Ordinal	321	3.47	.935	-.343	.136	.279	.271
Importance fair price	Likert 1 – 5	Ordinal	321	3.75	.856	-.482	.136	.426	.271
Importance sustainability	Likert 1 – 5	Ordinal	321	3.12	.994	-.304	.136	-.006	.271

After having done Square Root, Log and Inverse transformations for all skewed variables, it appeared that the only variable able to be improved was the importance fair price, by using Square Root. For all other variables kurtosis worsened to a value larger than |3| after transforming. Because of validity, the variables have not been excluded.

Principal axis factoring / common factoring analysis has been done for the scale of Ferreira and Coelho (2015) (Ligthart, 2018). Here each factor consists of a common and unique part. Oblique rotation (Oblimin) has been used, since most correlations are smaller than |.3| (Table 31, Appendix H) and since it could be possible for factors to correlate. KMO and Bartlett's Test show adequate figures of respectively > .5 and p < .001 (Table 32, Appendix H). Communalities show low extraction values (< .2) for lowprice3 and fairprice1 (Table 33, Appendix H). Since fairprice1 has the lowest value, this one will be excluded from the analysis first. The initial eigenvalues show that there should be three factors (Table 34, Appendix H). This corresponds with the used scale.

After having excluded fairprice1, KMO and Bartlett's Test again showed adequate figures (Table 35, Appendix H). Therefore now lowprice3 (which now had the lowest value)

has been excluded (Table 36 Appendix H). Eigenvalues again showed three factors (Table 37, Appendix H).

After having done this, the extraction values all were appropriate ($> .2$) (Table 38, Appendix H). KMO had a value of .582 and Bartlett's test a value of $p < .001$ (Table 39, Appendix H). Both were appropriate. The eigenvalues show that there are three factors (Table 40, Appendix H) and the Pattern Matrix shows three factors containing each two items (Table 41, Chapter H). The scree plot is not that convincing and tends to a two-factor solution (Figure 14, Appendix H). Still, eigenvalues are seen as leading here. Factor loadings were all $> .5$, which means that all correlations between variable and factor are significant (Table 41, Appendix H and Table 3, Chapter 4). Only for factors 'fair price' and 'sustainability' factor loadings were desirable. The factor analysis resulted in the factors of Table 3, Chapter 4.

While executing the reliability analysis, it appeared that "fair price" had a Cronbach's Alpha of $\alpha = .887$ and "sustainability" of $\alpha = .939$ (Table 3, Chapter 4). These values are both very good. Only "low price" had a too low Cronbach's Alpha (.514) (Table 3, Chapter 4). However, since this factor only consists of two items, Cronbach's Alpha if item Deleted had no values. It was not possible to delete one of the two items to improve the scale. Additionally, since the adapted scale of Ferreira and Coelho (2015) is relatively new and thus in the early stages of scale development, reliabilities of between .5 and .6 are considered adequate (Nunnally, 1978).

Table 13

Univariate statistics

	N	Mean	Std. Deviation	Missing		No. of Extremes[a]	
				Count	Percent	Low	High
Price foundation	262	14,4196	9,20997	68	20,6	0	18
Price lipstick	283	10,1222	7,40437	47	14,2	0	3
Price eyeshadow	277	9,6030	9,57341	53	16,1	0	29
Price nail polish	272	5,4767	3,63395	58	17,6	0	14

Table 14

EM Means

Price foundation	Price lipstick	Price eyeshadow	Price nail polish
14,3467	10,0889	9,6584	5,5794

a. Little's MCAR test: Chi-Square = 50,298, DF = 28, Sig. = ,006

Table 15

Separate Variance t Tests

		Price foundation	Price lipstick	Price eyeshadow	Price nail polish
Price foundation	t	.	1,2	,8	-,9
	df	.	48,4	45,0	43,9
	P(2-tail)	.	,231	,423	,367
	# Present	262	251	242	238
	# Missing	0	32	35	34
	Mean(Present)	14,4196	10,2685	9,7762	5,4030
	Mean(Missing)	.	8,9750	8,4057	5,9926
Price lipstick	t	,2	.	2,5	-,2
	df	10,8	.	19,1	13,6
	P(2-tail)	,837	.	,023	,811
	# Present	251	283	263	259
	# Missing	11	0	14	13
	Mean(Present)	14,4459	10,1222	9,7815	5,4659
	Mean(Missing)	13,8182	.	6,2500	5,6923
Price eyes	t	-,5	-1,7	.	-,5
	df	22,1	26,5	.	19,5

hadow	P(2-tail)	,631	,101	.	,602
	# Present	242	263	277	254
	# Missing	20	20	0	18
	Mean(Present)	14,3386	9,9796	9,6030	5,4456
	Mean(Missing)	15,4000	11,9975	.	5,9167
Price nail polish	t	-1,1	-,6	-2,3	.
	df	32,4	36,4	22,5	.
	P(2-tail)	,290	,572	,031	.
	# Present	238	259	254	272
	# Missing	24	24	23	0
	Mean(Present)	14,2686	10,0720	8,7856	5,4767
	Mean(Missing)	15,9167	10,6646	18,6304	.
Q236_1	t	5,0	1,7	3,0	1,5
	df	106,6	218,5	233,2	181,9
	P(2-tail)	,000	,098	,003	,146
	# Present	213	204	195	191
	# Missing	49	79	82	81
	Mean(Present)	15,4387	10,4998	10,5253	5,6698
	Mean(Missing)	9,9896	9,1473	7,4098	5,0214
Q236_2	t	1,5	3,6	2,1	2,0
	df	115,8	132,0	177,5	147,2
	P(2-tail)	,135	,000	,037	,047
	# Present	198	226	207	204
	# Missing	64	57	70	68
	Mean(Present)	14,8835	10,7323	10,1816	5,7007
	Mean(Missing)	12,9842	7,7033	7,8920	4,8049
Q236_3	t	,5	,9	3,7	2,0
	df	182,3	257,3	235,7	237,8
	P(2-tail)	,644	,359	,000	,043
	# Present	169	185	195	172
	# Missing	93	98	82	100
	Mean(Present)	14,6180	10,3883	10,7271	5,8007
	Mean(Missing)	14,0590	9,6199	6,9299	4,9195
Q236_4	t	-,3	-1,2	-2,3	3,0
	df	197,6	200,8	104,5	169,7
	P(2-tail)	,783	,240	,025	,003
	# Present	174	192	189	204
	# Missing	88	91	88	68
	Mean(Present)	14,3129	9,7823	8,4796	5,7950
	Mean(Missing)	14,6306	10,8395	12,0159	4,5219

Table 16

Crosstabulation foundation usage and price

			Total	Foundation	Missing SysMis
Price foundation	Present	Count	262	213	49
		Percent	79,4	94,2	47,1
	Missing	% SysMis	2,7	,0	8,7
		% ,00	17,9	5,8	44,2
Price lipstick	Present	Count	283	204	79
		Percent	85,8	90,3	76,0
	Missing	% SysMis	2,7	,0	8,7
		% ,00	11,5	9,7	15,4
Price eyeshadow	Present	Count	277	195	82
		Percent	83,9	86,3	78,8
	Missing	% SysMis	2,7	,0	8,7
		% ,00	13,3	13,7	12,5
Price nail polish	Present	Count	272	191	81
		Percent	82,4	84,5	77,9
	Missing	% SysMis	2,7	,0	8,7
		% ,00	14,8	15,5	13,5
Q236_2	Present	Count	238	170	68
		Percent	72,1	75,2	65,4
	Missing	% SysMis	27,9	24,8	34,6
Q236_3	Present	Count	205	147	58
		Percent	62,1	65,0	55,8
	Missing	% SysMis	37,9	35,0	44,2
Q236_4	Present	Count	214	151	63
		Percent	64,8	66,8	60,6
	Missing	% SysMis	35,2	33,2	39,4

Indicator variables with less than 1% missing are not displayed.

Table 17

Crosstabulation lipstick usage and price

			Total	Lipstick	Missing SysMis
Price foundation	Present	Count	262	198	64
		Percent	79,4	83,2	69,6
	Missing	% SysMis	2,7	,0	9,8
		% ,00	17,9	16,8	20,7
Price lipstick	Present	Count	283	226	57
		Percent	85,8	95,0	62,0
	Missing	% SysMis	2,7	,0	9,8
		% ,00	11,5	5,0	28,3
Price eyeshadow	Present	Count	277	207	70
		Percent	83,9	87,0	76,1
	Missing	% SysMis	2,7	,0	9,8
		% ,00	13,3	13,0	14,1
Price nail polish	Present	Count	272	204	68
		Percent	82,4	85,7	73,9
	Missing	% SysMis	2,7	,0	9,8
		% ,00	14,8	14,3	16,3
Q236_1	Present	Count	226	170	56
		Percent	68,5	71,4	60,9
	Missing	% SysMis	31,5	28,6	39,1
Q236_3	Present	Count	205	164	41
		Percent	62,1	68,9	44,6
	Missing	% SysMis	37,9	31,1	55,4
Q236_4	Present	Count	214	170	44
		Percent	64,8	71,4	47,8
	Missing	% SysMis	35,2	28,6	52,2

Indicator variables with less than 1% missing are not displayed.

Table 18

Crosstabulation eyeshadow usage and price

			Total	Oogscha duw	Missing SysMis
Price foundation	Present	Count	262	169	93
		Percent	79,4	82,4	74,4
	Missing	% SysMis	2,7	,0	7,2
		% ,00	17,9	17,6	18,4
Price lipstick	Present	Count	283	185	98
		Percent	85,8	90,2	78,4
	Missing	% SysMis	2,7	,0	7,2
		% ,00	11,5	9,8	14,4
Price eyeshadow	Present	Count	277	195	82
		Percent	83,9	95,1	65,6
	Missing	% SysMis	2,7	,0	7,2
		% ,00	13,3	4,9	27,2
Price nail polish	Present	Count	272	172	100
		Percent	82,4	83,9	80,0
	Missing	% SysMis	2,7	,0	7,2
		% ,00	14,8	16,1	12,8
Q236_1	Present	Count	226	147	79
		Percent	68,5	71,7	63,2
	Missing	% SysMis	31,5	28,3	36,8
Q236_2	Present	Count	238	164	74
		Percent	72,1	80,0	59,2
	Missing	% SysMis	27,9	20,0	40,8
Q236_4	Present	Count	214	145	69
		Percent	64,8	70,7	55,2
	Missing	% SysMis	35,2	29,3	44,8

Indicator variables with less than 1% missing are not displayed.

Table 19

Crosstabulation nail polish usage and price

			Total	Nagellak	Missing SysMis
Price foundation	Present	Count	262	174	88
		Percent	79,4	81,3	75,9
	Missing	% SysMis	2,7	,0	7,8
		% ,00	17,9	18,7	16,4
Price lipstick	Present	Count	283	192	91
		Percent	85,8	89,7	78,4
	Missing	% SysMis	2,7	,0	7,8
		% ,00	11,5	10,3	13,8
Price eyeshadow	Present	Count	277	189	88
		Percent	83,9	88,3	75,9
	Missing	% SysMis	2,7	,0	7,8
		% ,00	13,3	11,7	16,4
Price nail polish	Present	Count	272	204	68
		Percent	82,4	95,3	58,6
	Missing	% SysMis	2,7	,0	7,8
		% ,00	14,8	4,7	33,6
Q236_1	Present	Count	226	151	75
		Percent	68,5	70,6	64,7
	Missing	% SysMis	31,5	29,4	35,3
Q236_2	Present	Count	238	170	68
		Percent	72,1	79,4	58,6
	Missing	% SysMis	27,9	20,6	41,4
Q236_3	Present	Count	205	145	60
		Percent	62,1	67,8	51,7
	Missing	% SysMis	37,9	32,2	48,3

Indicator variables with less than 1% missing are not displayed.

Table 20

Age residual

	Observed N	Expected N	Residual
12 to 18 years	19	,3	18,7
19 to 24 years	123	30,0	93,0
25 to 34 years	68	49,9	18,1
35 to 44 years	15	49,9	-34,9
45 to 54 years	55	59,9	-4,9
55 to 64 years	37	56,6	-19,6
65 years and older	13	83,2	-70,2
Total	330		

Table 21

Age Chi-Square

	What is your age?
Chi-Square	1432,662[a]
df	6
Asymp. Sig.	,000

a. 1 cells (14,3%) have expected frequencies less than 5. The minimum expected cell frequency is ,3.

Table 22

Usage make-up residual

	Observed N	Expected N	Residual
Yes, 5 – 7 days per week	231	66,0	165,0
Yes, 1 - 4 days per week	62	66,0	-4,0
Yes, at least one time per month	13	66,0	-53,0
Yes, only exceptional	15	66,0	-51,0
No, never	9	66,0	-57,0
Total	330		

Table 23

Usage make-up Chi-Square

	Do you wear make-up?
Chi-Square	543,939[a]
df	4
Asymp. Sig.	,000

a. 0 cells (0,0%) have expected frequencies less than 5. The minimum expected cell frequency is 66,0.

Table 24

Education residual

	Observed N	Expected N	Residual
Primary School	3	33,0	-30,0
Lower Secondary education (VMBO/MAVO/VBO)	40	75,9	-35,9
Higher Secondary Education / Pre-University Education (HAVO/VWO)	30	92,4	-62,4
Intermediate Vocational Education (MBO)	98	29,7	68,3
Higher Vocational Education (HBO)	98	62,7	35,3
University Education (WO)	56	33,0	23,0
Other, namely …	5	3,3	1,7
Total	330		

Table 25

Eduction Chi-Square

	What is the highest education you graduated for?
Chi-Square	280,240[a]
df	6
Asymp. Sig.	,000

a. 1 cells (14,3%) have expected frequencies less than 5. The minimum expected cell frequency is 3,3.

Table 26

Frequencies and percentages sustainable Choice1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Least sustainable price * 1	56	17,0	19,0	19,0
	1,50	3	,9	1,0	20,1
	Slightly sustainable price *1.05	30	9,1	10,2	30,3
	2,50	17	5,2	5,8	36,1
	Reasonable duurzaam price *1.1	59	17,9	20,1	56,1
	3,50	15	4,5	5,1	61,2
	Relative sustainable price * 1.15	43	13,0	14,6	75,9
	4,50	17	5,2	5,8	81,6
	Most sustainable price * 1.2	54	16,4	18,4	100,0
	Total	294	89,1	100,0	
Missing	,00	27	8,2		
	System	9	2,7		
	Total	36	10,9		
Total		330	100,0		

Table 27

Frequencies and percentages sustainable Choice2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Least sustainable price * 1	42	12,7	14,2	14,2
	1,50	10	3,0	3,4	17,6
	Slightly sustainable price *1.05	28	8,5	9,5	27,1
	2,50	25	7,6	8,5	35,6
	Reasonable duurzaam price *1.1	65	19,7	22,0	57,6
	3,50	23	7,0	7,8	65,4
	Relative sustainable price * 1.15	41	12,4	13,9	79,3
	4,50	13	3,9	4,4	83,7
	Most sustainable price * 1.2	48	14,5	16,3	100,0
	Total	295	89,4	100,0	
Missing	,00	26	7,9		
	System	9	2,7		
	Total	35	10,6		
Total		330	100,0		

Table 28

Cronbach's Alpha if Item Deleted - Low price

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
When I buy a make-up product I am very concerned about low prices, but I am equally concerned about product quality.	6,47	3,463	,306	,342
I compare the prices of different brands of make-up to be sure I get the best value for the money.	6,81	2,679	,372	,200
I attach great importance to a low price regarding make-up products.	7,38	3,692	,199	,514

Table 29

Cronbach's Alpha if Item Deleted - Fair price

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I attach great importance to a fair price regarding make-up.	7,18	2,186	,712	,333
A fair price regarding make-up is something that I value a lot.	7,20	2,506	,648	,440
The sustainability degree of make-up varies with its price.	7,24	3,769	,257	,887

Table 30

Cronbach's Alpha if Item Deleted - Sustainability

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I attach great importance tot he sustainability of make-up.	6,69	2,729	,765	,391
Sustainable make-up is something that I value a lot.	6,67	2,673	,758	,397
The sustainability degree of make-up varies with its price.	6,21	5,014	,259	,939

Table 31

Correlation Matrix

	When I buy a make-up produ ct I am very conce rned about low prices , but I am equall y conce rned about produ ct qualit y.	I com pare the price s of diffe rent bran ds of mak e-up to be sure I get the best valu e for the mon ey.	Een lage prijs is iets dat ik erg belan grijk vind bij make- up produ cten.	The sustain ability degree of make- up varies with its price.	I attach great import ance to a fair price regard ing make- up.	A fair price regar ding make- up is somet hing that I value a lot.	I attach great importa nce tot he sustain ability of make- up.	Sustai nable make- up is somet hing that I value a lot.

Correl ation	When I buy a make-up product I am very concer ned about low prices, but I am equally concer ned about product quality.	1,000	,351	,111	,100	,094	,147	-,012	-,017
	I compar e the prices of differen t brands of make-up to be sure I get the best value for the money.	,351	1,00 0	,208	,036	,107	,151	-,006	-,023
	I attach great importa nce to a low	,111	,208	1,000	-,068	-,041	-,047	-,205	-,184

price regarding make-up products.							
The sustainability degree of make-up varies with its price.	,100	,036	-,068	1,000	,285	,200	,253	,250
I attach great importance to a fair price regarding make-up.	,094	,107	-,041	,285	1,000	,798	,329	,319
A fair price regarding make-up is something that I value a lot.	,147	,151	-,047	,200	,798	1,000	,358	,371
I attach great importance tot he sustain	-,012	-,006	-,205	,253	,329	,358	1,000	,885

...ability of make-up.

	Sustainable make-up is something that I value a lot.	-,017	-,023	-,184	,250	,319	,371	,885	1,000
Sig. (1-tailed)	When I buy a make-up product I am very concerned about low prices, but I am equally concerned about product quality.		,000	,023	,037	,046	,004	,415	,380
	I compare the prices of different brands of make-up to	,000		,000	,261	,027	,003	,460	,342

be sure I get the best value for the money.								
I attach great importance to a low price regarding make-up products.	,023	,000		,113	,233	,199	,000	,000
The sustainability degree of make-up varies with its price.	,037	,261	,113		,000	,000	,000	,000
I attach great importance to a fair price regarding make-up.	,046	,027	,233	,000		,000	,000	,000
A fair price regarding ng	,004	,003	,199	,000	,000		,000	,000

make-up is something that I value a lot								
I attach great importance tot he sustain ability of make-up.	,415	,460	,000	,000	,000	,000		,000
Sustain able make-up is someth ing that I value a lot.	,380	,342	,000	,000	,000	,000	,000	

Table 32

KMO and Bartlett's Test 1

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,609
Bartlett's Test of Sphericity	Approx. Chi-Square	983,908
	df	28
	Sig.	,000

Table 33

Communalities 1

	Initial	Extraction
When I buy a make-up product I am very concerned about low prices, but I am equally concerned about product quality.	,146	,233
I compare the prices of different brands of make-up to be sure I get the best value for the money.	,167	,537
I attach great importance to a low price regarding make-up products.	,088	,113
The sustainability degree of make-up varies with its price.	,128	,107
I attach great importance to a fair price regarding make-up.	,656	,977
A fair price regarding make-up is something that I value a lot	,664	,669
I attach great importance tot he sustainability of make-up.	,789	,914
Sustainable make-up is something that I value a lot.	,789	,857

Extraction Method: Principal Axis Factoring.

Table 34

Total Variance Explained 1

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	2,729	34,108	34,108	2,531	31,633	31,633	2,084
2	1,599	19,989	54,096	1,181	14,765	46,399	2,167
3	1,027	12,833	66,930	,696	8,698	55,097	,920
4	,885	11,065	77,995				
5	,831	10,385	88,380				
6	,624	7,798	96,178				
7	,193	2,417	98,596				
8	,112	1,404	100,000				

Extraction Method: Principal Axis Factoring.

a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Table 35

KMO and Bartlett's Test 2

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,592
Bartlett's Test of Sphericity	Approx. Chi-Square	941,651
	df	21
	Sig.	,000

Table 36

Communalities 2

	Initial	Extraction
When I buy a make-up product I am very concerned about low prices, but I am equally concerned about product quality.	,137	,215
I compare the prices of different brands of make-up to be sure I get the best value for the money.	,167	,575
I attach great importance to a low price regarding make-up products.	,087	,111
I attach great importance to a fair price regarding make-up.	,640	,764
A fair price regarding make-up is something that I value a lot	,661	,838
I attach great importance tot he sustainability of make-up.	,788	,927
Sustainable make-up is something that I value a lot.	,788	,845

Extraction Method: Principal Axis Factoring.

Table 37

Total Variance Explained 2

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	2,581	36,867	36,867	2,416	34,520	34,520	2,065
2	1,597	22,819	59,685	1,172	16,746	51,265	,936
3	1,025	14,649	74,334	,687	9,818	61,084	1,947
4	,854	12,203	86,537				
5	,630	8,996	95,533				
6	,200	2,861	98,394				
7	,112	1,606	100,000				

Extraction Method: Principal Axis Factoring.

a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Table 38

KMO and Bartlett's Test 3

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,582
Bartlett's Test of Sphericity	Approx. Chi-Square	913,847
	df	15
	Sig.	,000

Table 39

Communalities 3

	Initial	Extraction
When I buy a make-up product I am very concerned about low prices, but I am equally concerned about product quality.	,136	,352
I compare the prices of different brands of make-up to be sure I get the best value for the money.	,137	,350
I attach great importance to a fair price regarding make-up.	,640	,786
A fair price regarding make-up is something that I value a lot	,661	,818
I attach great importance tot he sustainability of make-up.	,786	,880
Sustainable make-up is something that I value a lot.	,788	,890

Extraction Method: Principal Axis Factoring.

Table 40

Total Variance Explained 3

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadingsª
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	2,551	42,522	42,522	2,392	39,868	39,868	2,039
2	1,462	24,367	66,888	1,095	18,249	58,117	1,930
3	1,025	17,079	83,967	,589	9,820	67,937	,795
4	,649	10,813	94,781				
5	,200	3,338	98,119				
6	,113	1,881	100,000				

Extraction Method: Principal Axis Factoring.

a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.
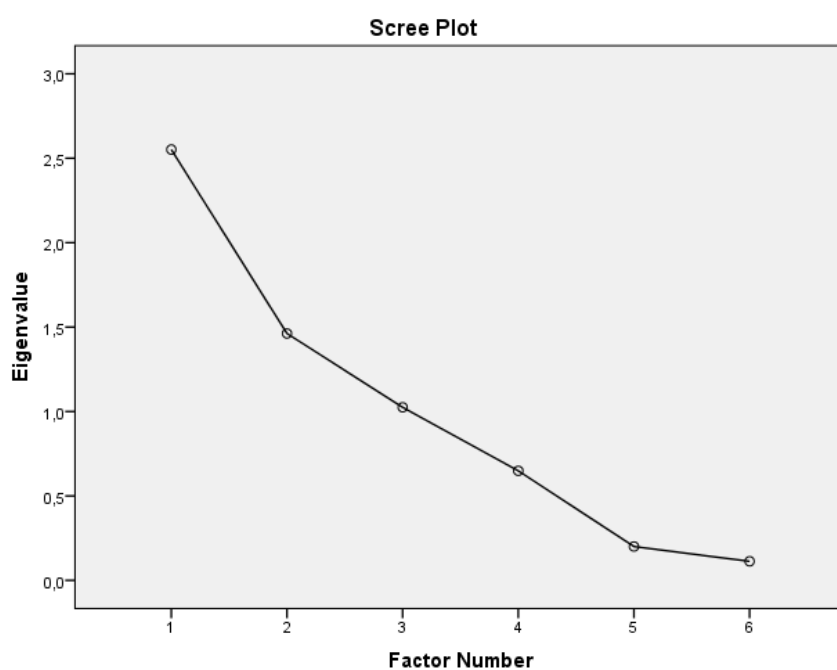
Figure 14. Scree plot

Table 41

Pattern Matrix

	Factor		
	1	2	3
When I buy a make-up product I am very concerned about low prices, but I am equally concerned about product quality.	,002	-,006	,595
I compare the prices of different brands of make-up to be sure I get the best value for the money.	-,003	,007	,590
I attach great importance to a fair price regarding make-up.	-,024	,905	-,040
A fair price regarding make-up is something that I value a lot	,032	,879	,049
I attach great importance tot he sustainability of make-up.	,939	-,001	,007
Sustainable make-up is something that I value a lot.	,942	,002	-,011

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.[a]

a. Rotation converged in 6 iterations.

Table 42

I attach great importance to a low price regarding make-up products

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally disagree	38	11,5	11,8	11,8
	Disagree	67	20,3	20,9	32,7
	Neutral	118	35,8	36,8	69,5
	Agree	68	20,6	21,2	90,7
	Totally agree	30	9,1	9,3	100,0
	Total	321	97,3	100,0	
Missing	System	9	2,7		
Total		330	100,0		

Table 43

The sustainability degree of make-up varies with its price

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally disagree	8	2,4	2,5	2,5
	Disagree	14	4,2	4,4	6,9
	Neutral	142	43,0	44,2	51,1
	Agree	100	30,3	31,2	82,2
	Totally agree	57	17,3	17,8	100,0
	Total	321	97,3	100,0	
Missing	System	9	2,7		
Total		330	100,0		

Table 44

Pearson Correlations Choice1 and Choice2

		Choice1 dependent variable, foundation and lipstick	Choice2 dependent variable, eyeshadow and nail polish
Choice1 dependent variable, foundation and lipstick	Pearson Correlation	1	,620**
	Sig. (2-tailed)		,000
	N	294	284
Choice2 dependent variable, eyeshadow and nail polish	Pearson Correlation	,620**	1
	Sig. (2-tailed)	,000	
	N	284	295

**. Correlation is significant at the 0.01 level (2-tailed).

Table 45

Levene's Test of Equality of Error Variances Choice1

F	df1	df2	Sig.
,954	3	290	,415

Tests the null hypothesis that the error variance
of the dependent variable is equal across
groups.
a. Design: Intercept + Scale_lowprice +
Scale_fairprice + Scale_sustainability +
Q3wearingmakeup + Q37age + Q38education +
continuum + default + continuum * default
b. Dependent Variable: Choice1 dependent
variable, foundation and lipstick

Table 46

Levene's Test of Equality of Error Variances Choice2

F	df1	df2	Sig.
3,013	1	293	,084

Tests the null hypothesis that the error variance
of the dependent variable is equal across
groups.

a. Design: Intercept + Scale_lowprice +
Scale_fairprice + Scale_sustainability +
Q3wearingmakeup + Q37age + Q38education +
continuum

b. Dependent Variable: Choice2 dependent
variable, eyeshadow and nail polish

Table 47

Tests of Between-Subjects Effects Choice1, adjusted model

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[b]
Corrected Model	137,851[a]	14	9,847	6,460	,000	,245	90,434	1,000
Intercept	,002	1	,002	,001	,972	,000	,001	,050
Q3wearingmakeup	1,765	1	1,765	1,158	,283	,004	1,158	,189
Q37age	,036	1	,036	,023	,878	,000	,023	,053
Q38education	12,914	1	12,914	8,472	,004	,029	8,472	,827
Scale_lowprice	,868	1	,868	,569	,451	,002	,569	,117
Continuum	,052	1	,052	,034	,853	,000	,034	,054
Default	2,408	1	2,408	1,580	,210	,006	1,580	,240
continuum * default	2,389	1	2,389	1,567	,212	,006	1,567	,239
continuum * Scale_fairprice	,336	1	,336	,220	,639	,001	,220	,075

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power
continuum * Scale_sustainability	,762	1	,762	,500	,480	,002	,500	,109
default * Scale_fairprice	,142	1	,142	,093	,760	,000	,093	,061
default * Scale_sustainability	,338	1	,338	,222	,638	,001	,222	,076
Scale_fairprice	,001	1	,001	,001	,977	,000	,001	,050
Scale_sustainability	18,436	1	18,436	12,094	,001	,042	12,094	,934
Scale_fairprice * Scale_sustainability	1,549	1	1,549	1,016	,314	,004	1,016	,171
Error	425,288	279	1,524					
Total	3386,000	294						
Corrected Total	563,139	293						

a. R Squared = ,245 (Adjusted R Squared = ,207)

b. Computed using alpha = 0,05

c. Dependent Variable: Choice1 dependent variable, foundation and lipstick

Table 48

Tests of Between-Subjects Effects Choice2, adjusted model

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[b]
Corrected Model	91,376[a]	10	9,138	6,510	,000	,186	65,101	1,000
Intercept	,576	1	,576	,411	,522	,001	,411	,098
Q3wearingmakeup	1,443	1	1,443	1,028	,311	,004	1,028	,173
Q37age	,051	1	,051	,036	,849	,000	,036	,054
Q38education	14,979	1	14,979	10,672	,001	,036	10,672	,902
Scale_lowprice	,136	1	,136	,097	,756	,000	,097	,061
Continuum	1,914E-7	1	1,914E-7	,000	1,000	,000	,000	,050

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[b]
Continuum * Scale_fairprice	,817	1	,817	,582	,446	,002	,582	,118
continuum * Schale_sustainability	1,506	1	1,506	1,073	,301	,004	1,073	,178
Scale_fairprice	,002	1	,002	,001	,971	,000	,001	,050
Scale_sustainability	8,232	1	8,232	5,865	,016	,020	5,865	,675
Scale_fairprice * Scale_sustainability	,190	1	,190	,135	,713	,000	,135	,066
Error	398,621	284	1,404					
Total	3318,750	295						
Corrected Total	489,997	294						

a. R Squared = ,186 (Adjusted R Squared = ,158)

b. Computed using alpha = 0,05

c. Dependent Variable: Choice2 dependent variable, eyeshadow and nail polish

Table 49

Tests of Between-Subjects Effects Choice1, full factorial model

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[b]
Corrected Model	134,845[a]	9	14,983	9,935	,000	,239	89,415	1,000
Intercept	2,527	1	2,527	1,675	,197	,006	1,675	,252
Scale_lowprice	,790	1	,790	,524	,470	,002	,524	,111
Scale_fairprice	6,851	1	6,851	4,543	,034	,016	4,543	,565
Scale_sustainability	107,199	1	107,199	71,083	,000	,200	71,083	1,000
Q3wearingmakeup	1,623	1	1,623	1,076	,300	,004	1,076	,179
Q37age	,031	1	,031	,020	,887	,000	,020	,052

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power
Q38education	13,488	1	13,488	8,944	,003	,031	8,944	,846
Continuum	,568	1	,568	,377	,540	,001	,377	,094
Default	10,703	1	10,703	7,097	,008	,024	7,097	,757
Continuum * Default	2,435	1	2,435	1,614	,205	,006	1,614	,245
Error	428,295	284	1,508					
Total	3386,000	294						
Corrected Total	563,139	293						

a. R Squared = ,239 (Adjusted R Squared = ,215)

b. Computed using alpha = ,05

c. Dependent Variable: Choice1 dependent variable, foundation and lipstick

Table 50

Tests of Between-Subjects Effects Choice2, full factorial model

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[b]
Corrected Model	89,582[a]	7	12,797	9,173	,000	,183	64,209	1,000
Intercept	2,804	1	2,804	2,010	,157	,007	2,010	,293
Schale_lowprice	,168	1	,168	,121	,729	,000	,121	,064
Scale_fairprice	,529	1	,529	,379	,538	,001	,379	,094
Scale_sustainability	67,170	1	67,170	48,145	,000	,144	48,145	1,000
Q3wearingmakeup	1,267	1	1,267	,908	,341	,003	,908	,158
Q37age	,120	1	,120	,086	,769	,000	,086	,060
Q38education	15,323	1	15,323	10,983	,001	,037	10,983	,910

Continuum	,007	1	,007	,005	,943	,000	,005	,051
Error	400,415	287	1,395					
Total	3318,750	295						
Corrected Total	489,997	294						

a. R Squared = ,183 (Adjusted R Squared = ,163)

b. Computed using alpha = ,05

c. Dependent Variable: Choice2 dependent variable, eyeshadow and nail polish

Table 51

Grand Mean Choice1

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
3,098[a]	,072	2,957	3,239

a. Covariates appearing in the model are evaluated at the following values: Do you wear make-up? Give the answer that fits you best = 1,41, What is your age? = 4,33, What is the highest education you graduated for? One answer possible - Selected Choice = 4,33, scale low price, covariaat = 3,6922, scale fair price, covariaat = 3,6224, scale sustainability, covariaat = 3,1259.

b. Dependent Variable: Choice1 dependent variable, foundation and lipstick

Table 52

Grand Mean Choice2

		95% Confidence Interval	
Mean	Std. Error	Lower Bound	Upper Bound
3,097[a]	,069	2,961	3,232

a. Covariates appearing in the model are evaluated at the
following values: Do you wear make-up? Give the answer
that fits you best = 1,40, What is your age? = 4,31, What is
the highest education you graduated for? One answer
possible - Selected Choice = 4,33, scale low price, covariaat
= 3,6932, scale fair price, covariaat = 3,6203, scale
sustainability, covariaat = 3,0949.

b. Dependent Variable: Choice2 dependent variable,
eyeshadow and nail polish

Table 53

Estimates Choice1 default

default least or most, fixed factor	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
default at least	2,905[a]	,101	2,705	3,104
default at most	3,291[a]	,103	3,089	3,493

a. Covariates appearing in the model are evaluated at the following values: Do you wear
make-up? Give the answer that fits you best = 1,41, What is your age? = 4,33 What is
the highest education you graduated for? One answer possible - Selected Choice =
4,33, scale low price, covariaat = 3,6922, scale fair price, covariaat = 3,6224, scale
sustainability, covariaat = 3,1259.

b. Dependent Variable: Choice1 dependent variable, foundation and lipstick
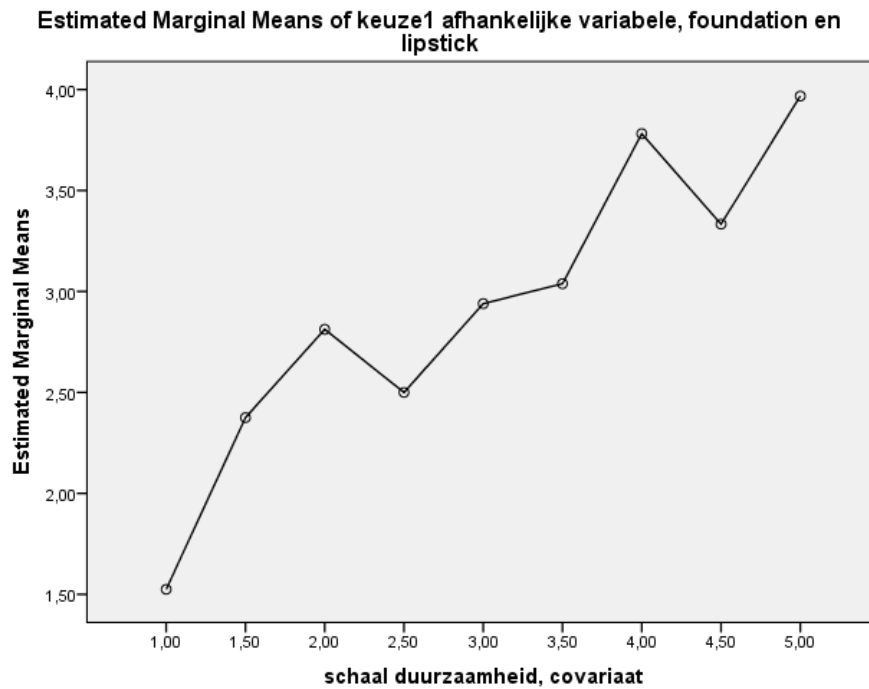
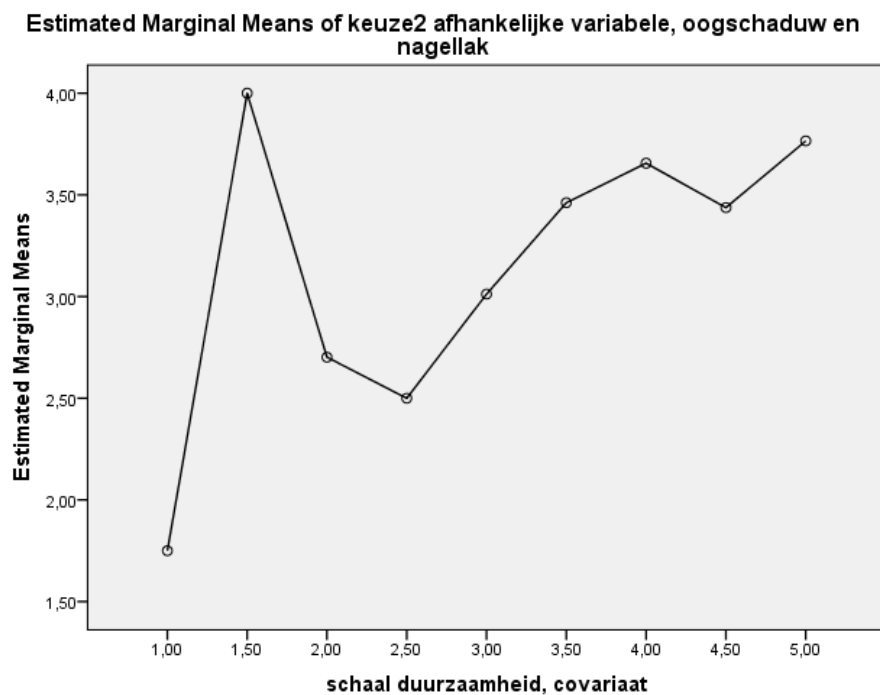Figure 15. Means Sustainability scale choice 1

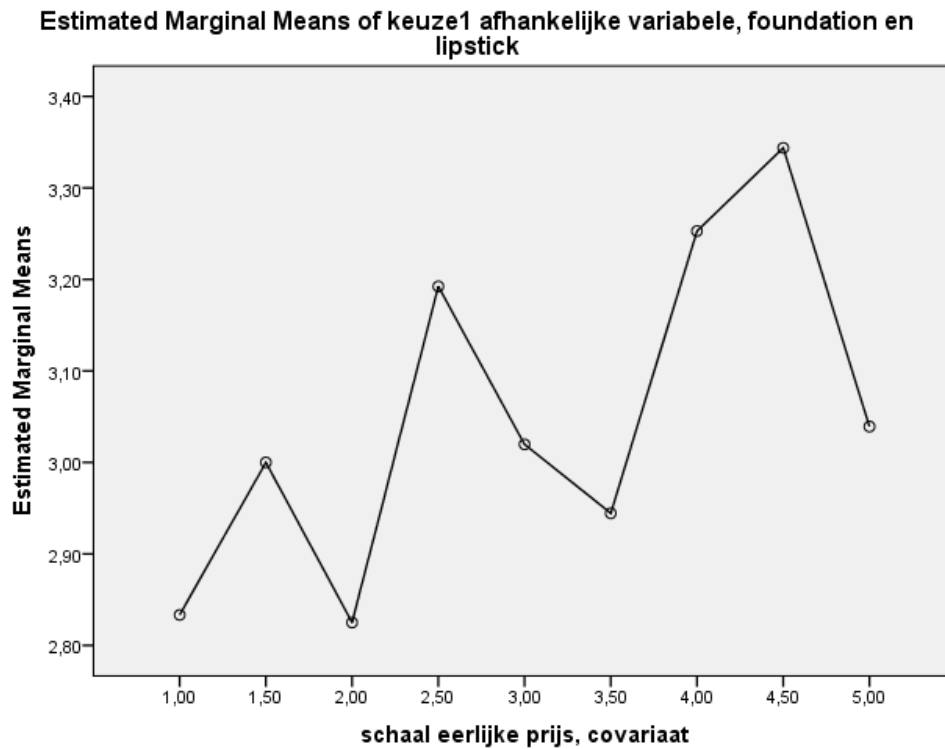Figure 16. Means Sustainability scale Choice 2
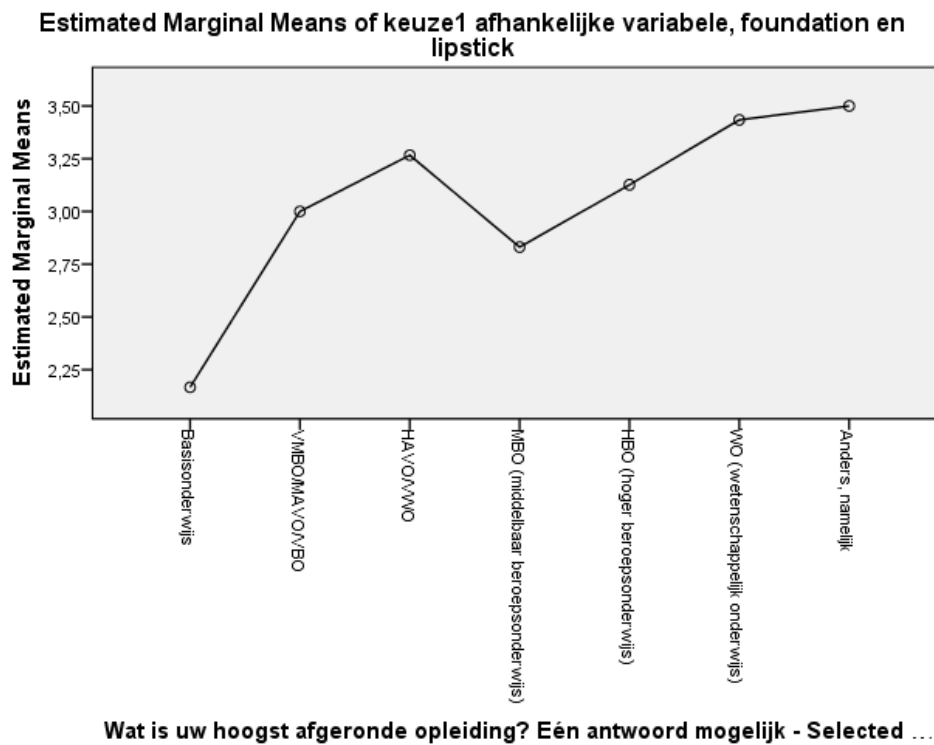
Figure 17. Means Fair price scale Choice 1

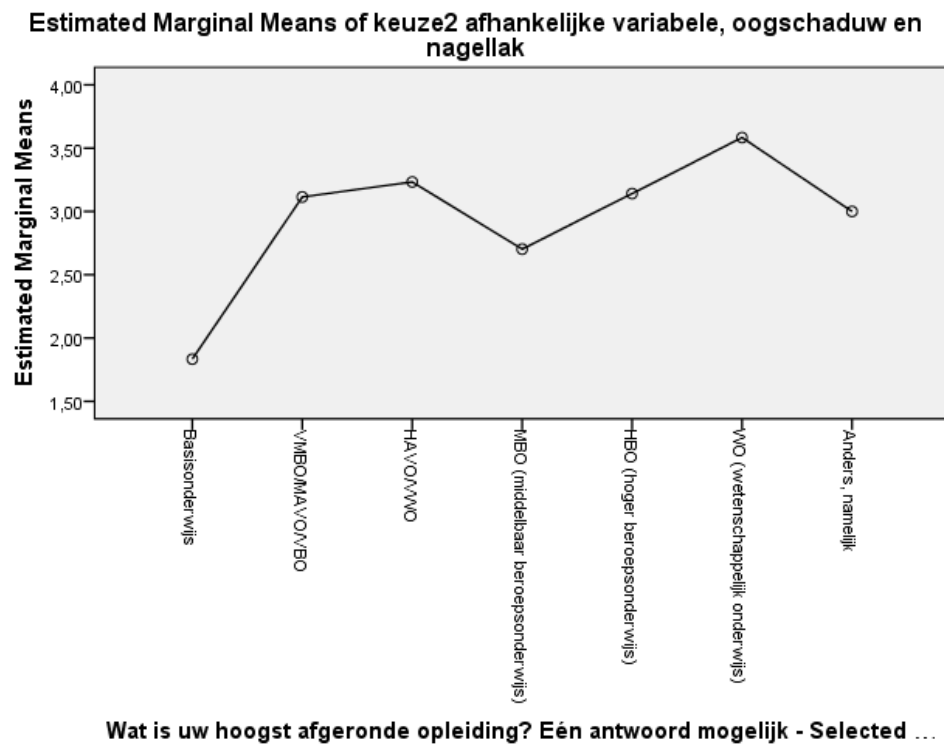Figure 18. Means Education Choice 1

Figure 19. Means Education Choice 2

Table 54

Repeated Measures ANOVA Descriptives

	default least or most, fixed factor	continuum, fixed factor	Mean	Std. Deviation	N
Choice1 dependent variable, foundation and lipstick	default at least	least to most	2,9392	1,40438	74
		most to least (let op: omgedraaid, 1 = least en 5 = most)	3,0141	1,49277	71
		Total	2,9759	1,44377	145
	default at most	least to most	3,0735	1,43325	68
		most to least (let op: omgedraaid, 1 = least en 5 = most)	3,4296	1,14423	71
		Total	3,2554	1,30129	139
	Total	least to most	3,0035	1,41484	142
		most to least (let op: omgedraaid, 1 = least en 5 = most)	3,2218	1,34154	142
		Total	3,1127	1,38057	284
Choice2 dependent variable, eyeshadow and nail polish	default at least	least to most	3,0405	1,26534	74
		most to least (let op: omgedraaid, 1 = least en 5 = most)	3,1972	1,42548	71
		Total	3,1172	1,34373	145
	default at most	least to most	3,1176	1,27583	68
		most to least (let op: omgedraaid, 1 = least en 5 = most)	3,1127	1,22823	71
		Total	3,1151	1,24719	139
	Total	least to most	3,0775	1,26645	142
		most to least (let op: omgedraaid, 1 = least en 5 = most)	3,1549	1,32647	142
		Total	3,1162	1,29509	284

Table 55

Repeated Measures ANOVA Multivariate Tests

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[c]
factor1	Pillai's Trace	,000	,032[b]	1,000	274,000	,858	,000	,032	,054
	Wilks' Lambda	1,000	,032[b]	1,000	274,000	,858	,000	,032	,054
	Hotelling's Trace	,000	,032[b]	1,000	274,000	,858	,000	,032	,054
	Roy's Largest Root	,000	,032[b]	1,000	274,000	,858	,000	,032	,054
factor1 * Scale_lowprice	Pillai's Trace	,001	,160[b]	1,000	274,000	,690	,001	,160	,068
	Wilks' Lambda	,999	,160[b]	1,000	274,000	,690	,001	,160	,068
	Hotelling's Trace	,001	,160[b]	1,000	274,000	,690	,001	,160	,068
	Roy's Largest Root	,001	,160[b]	1,000	274,000	,690	,001	,160	,068
factor1 * Scale_fairprice	Pillai's Trace	,010	2,701[b]	1,000	274,000	,101	,010	2,701	,374
	Wilks' Lambda	,990	2,701[b]	1,000	274,000	,101	,010	2,701	,374
	Hotelling's Trace	,010	2,701[b]	1,000	274,000	,101	,010	2,701	,374
	Roy's Largest Root	,010	2,701[b]	1,000	274,000	,101	,010	2,701	,374
	Pillai's Trace	,010	2,882[b]	1,000	274,000	,091	,010	2,882	,394

Effect	Test	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power
factor1 * Scale_sustainability	Wilks' Lambda	,990	2,882[b]	1,000	274,000	,091	,010	2,882	,394
	Hotelling's Trace	,011	2,882[b]	1,000	274,000	,091	,010	2,882	,394
	Roy's Largest Root	,011	2,882[b]	1,000	274,000	,091	,010	2,882	,394
factor1 * Q3wearingmakeup	Pillai's Trace	,000	,009[b]	1,000	274,000	,923	,000	,009	,051
	Wilks' Lambda	1,000	,009[b]	1,000	274,000	,923	,000	,009	,051
	Hotelling's Trace	,000	,009[b]	1,000	274,000	,923	,000	,009	,051
	Roy's Largest Root	,000	,009[b]	1,000	274,000	,923	,000	,009	,051
factor1 * Q37age	Pillai's Trace	,000	,037[b]	1,000	274,000	,849	,000	,037	,054
	Wilks' Lambda	1,000	,037[b]	1,000	274,000	,849	,000	,037	,054
	Hotelling's Trace	,000	,037[b]	1,000	274,000	,849	,000	,037	,054
	Roy's Largest Root	,000	,037[b]	1,000	274,000	,849	,000	,037	,054
factor1 * Q38education	Pillai's Trace	,000	,111[b]	1,000	274,000	,739	,000	,111	,063
	Wilks' Lambda	1,000	,111[b]	1,000	274,000	,739	,000	,111	,063
	Hotelling's Trace	,000	,111[b]	1,000	274,000	,739	,000	,111	,063
	Roy's Largest Root	,000	,111[b]	1,000	274,000	,739	,000	,111	,063

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power
factor1 * Default	Pillai's Trace	,019	5,344b	1,000	274,000	,022	,019	5,344	,634
	Wilks' Lambda	,981	5,344b	1,000	274,000	,022	,019	5,344	,634
	Hotelling's Trace	,020	5,344b	1,000	274,000	,022	,019	5,344	,634
	Roy's Largest Root	,020	5,344b	1,000	274,000	,022	,019	5,344	,634
factor1 * Continuum	Pillai's Trace	,002	,686b	1,000	274,000	,408	,002	,686	,131
	Wilks' Lambda	,998	,686b	1,000	274,000	,408	,002	,686	,131
	Hotelling's Trace	,003	,686b	1,000	274,000	,408	,002	,686	,131
	Roy's Largest Root	,003	,686b	1,000	274,000	,408	,002	,686	,131
factor1 * Default * Continuum	Pillai's Trace	,010	2,762b	1,000	274,000	,098	,010	2,762	,381
	Wilks' Lambda	,990	2,762b	1,000	274,000	,098	,010	2,762	,381
	Hotelling's Trace	,010	2,762b	1,000	274,000	,098	,010	2,762	,381
	Roy's Largest Root	,010	2,762b	1,000	274,000	,098	,010	2,762	,381

a. Design: Intercept + Scale_lowprice + Scale_fairprice + Scale_sustainability + Q3wearingmakeup + Q37age + Q38education + default + continuum + default * continuum

 Within Subjects Design: factor1

b. Exact statistic

c. Computed using alpha = ,05