

## Master Thesis

### Green Personal Care Products

Investigating the factors that could influence Dutch consumers' purchasing intentions of Green Personal Care Products



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# Executive Summary

This thesis is focused on understanding the main factors that influence consumers' intentions to buy green personal care products. Green personal care products introduced in this thesis are everyday used personal care products such as shampoos, facial and body creams, and hygiene products.

Topic Relevance: The reason the author decided to study this topic is that although there is various research that studied consumer purchasing behavior and attitude towards buying green products, green and organic food was the most studied topic. Therefore, this research focused on studying consumers' behavior towards buying green personal care products.

Managerial Relevance: Company's sustainability and its environmental responsibility are usually reflected through the development and/or the introduction of green brands. This thesis offers an insight into the main factors that retailers and brand managers should focus on to shape their products and brand identity in alignment with consumers' needs.

Central Research Question: The main research question of this research aims to understand the factors that influence consumers' intentions to buy green personal care products.

Empirical Sub-questions: the empirical questions of this thesis aim to understand the most important factors that influence not only consumers' intentions to buy green personal care products but also consumers' attitudes towards buying green personal care products. Additionally, the empirical questions will investigate the effect of gender on the purchasing intentions of green personal care products.

Literature Findings: The main model used to study consumer behavior is the theory of planned behavior (TPB). TPB argues that people evaluate the options they have to create a better understanding and thereafter, form their attitudes, norms, and intentions before actually change their purchasing behavior. According to previous literature consumers values such as environmental consciousness, appearance consciousness and health consciousness found to have a positive effect on the attitude toward buying green products. Previous studies also reported that consumers' values have a positive effect on the intention to buy green products.

The main factors influencing purchasing intentions according to TPB are subjective norms, past experience with the products, and perceived behavioral control. To further investigate the factors affecting the purchasing intentions of green personal care products, price consciousness, and green brand image are added to the model.

Subjective norms were found to have a positive effect on the intention to buy organic food and organic personal care products. Researchers also reported that subjective norms will have a positive effect on the attitude towards buying green products.

Perceived behavioral control, price consciousness, green brand image, and consumers' past experience with green products reported having a significant effect on the intentions to buy green products. Past experience was also found to be one of the factors that shape consumers' beliefs and attitudes that lead to purchasing intentions.

Initial Hypothesis and Conceptual Model: The literature findings shaped the initial conceptual model. The initial conceptual model assumes that all factors affect attitudes towards buying green personal care products and also on the intention to buy the studied products.

Research Methodology: To further test the initial conceptual model and get a better insight into the factors that shape consumers' attitudes and the factors that mainly influence consumers' intentions, qualitative research was conducted using 8 semi-structured interviews. All the interviews were conducted face-to-face and recorded. The results of the interviews were used to further improve the conceptual model. Thereafter, field research was conducted to test the factors that influence consumers' intentions to buy green personal care products. The field research was performed using an online survey.

Qualitative Research Finding: The interview results offered a better understanding of how each factor affects consumers' consumption behavior. The results supported the TPB model. Environmental, health and appearance consciousness were found to be the main influencers of consumers' attitudes towards buying green personal care products. While subjective norms, past experience, perceived behavioral control, green brand image and price consciousness were the main factors that influence consumers' intentions to buy green personal care products. Interviewees also indicated that the availability of green personal care products played an important role in translating their positive attitude into purchasing intentions of green personal care products. Therefore, perceived behavioral control was studied as a moderator of the relationship between attitude and intentions to buy green personal care products.

Improved Hypothesis and Conceptual Model Testing: The qualitative research finding was applied to further improve the research model. The improved version of the conceptual model was in alignment with the TPB. The improved research model was conducted using an online survey that was shared on the internet. The survey was designed on Qualtrics and published in December 2019 and the data collection lasted until the

15<sup>th</sup> of March 2020. After collecting 219 valid responses the results were statistically analyzed using linear regression analysis.

The survey started with general questions about participants and then in its second part questions about concerns, beliefs, and attitudes regarding green personal care products. participants indicated on a Likert scale how much they agree or disagree with each statement. The items and the scales that have been used in the survey were taken from previous literature.

Answer to Central Research Question: After conducting qualitative research followed by quantitative research, it was concluded that the main factors that influence consumers' purchasing intentions of green personal care products are attitude toward buying green personal care products, past experience with green personal care products, and green brand image. It was also concluded that the higher the perceived behavior control the greater the translation of positive attitude towards buying green personal care products to the purchasing intentions of these products.

Answers to Empirical Sub-questions: The main factors that influenced the attitude towards buying green personal care products were environmental and appearance consciousness. Health consciousness did not seem to play a significant role in shaping a positive attitude towards buying green personal care products. Green brand image and past experience with green personal care products in addition to a positive attitude were the main influencers of consumers' intentions to buy green personal care products. Also, gender did not have a significant effect on the intention to buy green personal care products.

Managerial Recommendations: This study suggests that creating a positive attitude towards buying green personal care products plays an essential role in increasing the purchasing intentions of these products. Offering natural ingredients obtained by free trade and recyclable packaging plays a significant role in forming a positive attitude toward buying green personal care products. Additionally, advocating the effectiveness of green products through advertising or test samples have an added value to creating a positive attitude. Green brand image was found to be one of the factors that increased the purchasing intentions of green personal care products. All brand aspects need to be perceived as green and ecological. Brand managers can benefit from adding a brand purpose to solve one of the environmental issues to help to shape green brand identity and improve the brand's green image.

The availability of green personal care products is believed to increase the purchasing intentions, thus, retailers need to ensure the availability of green personal care products in supermarkets, drugstores and online.

Recommendation for Further Research: For further academic research, the suggestion is to overcome the research limitations of this paper. Further research should study the factors effecting each type of green personal care products separately. Additionally, the effect of recyclable packaging and natural ingredients on the attitudes toward buying green personal care products can be further investigated as these 2 factors were mentioned by the interviewees as the main drivers of their positive attitude towards green personal care products.

Another suggestion is to explore other factors that might have an effect on purchasing intentions of green personal care products such as trustworthiness of the brand and the effect of green advertising. Finally, the effect of the parent company of the green brand on the brand's purchasing intentions can be further studies.

# Acknowledgments

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# Chapter 1: Introduction:

## 1.1 Research Origin:

Environmental responsibility and the company's sustainability became an important aspect that a company should provide, especially with the increase of global warming effect and the increase of the awareness toward the need to control it. A survey conducted in the US confirmed that between 75% and 80% of Americans claim that protecting the environment is important to them (Gutfield, 199). This study shows that a high percentage of people are concerned about environmental issues and that preservation of the environment is important to them. Therefore, it would be interesting to see if the same findings apply to Europe.

A company's engagement with Company's Sustainability (CS) has been recognized to be the behavioral motivations in the core values of the company, this values can drive the company to engage in more sustainable activities (Crittenden, 2011). Therefore, for companies to be able to maintain their position in the market and meet the customers' needs it is essential to meet the market demand of more green products, either through the brand development to be green or the creation of new green brands and developing a green image for their brands. As a result, the market has witnessed a significant increase in green products and green marketing campaigns.

Satisfying needs were no longer the main influencer of consumers' purchasing decisions, but also the impact of their decision on the natural environment became an important influencer (Barber et al, 2009). Chang (2011) also pointed out that consumers might enjoy the emotional benefits of purchasing green products which will give them a sense of fulfillment of their motivation to protect the environment.

## 1.2 Problem Definition:

Although there is various research that studied consumer purchasing behavior and attitude toward green products (Moser, A.K., 2015, Pickett-Baker, J. and Ozaki, R., 2008, Thøgersen, J., 2012), many of them focused on green or organic food products. Attitude according to (Ajzen, 1985) refers to a person's evaluation toward a certain behavior; either be in favor of a certain behavior which means having a positive attitude towards it or the person is being unfavorable of the behavior.

Food pertains to the fast-moving consumer goods market, which is a pool of ever day-use products including food, beverages, hygiene, and personal care products. Given that current research is carried out mostly on green food products, this thesis will broaden the scope by focusing on green personal care products in the Dutch market instead.

### 1.3 Managerial Relevance:

The company's sustainability and its environmental responsibility are usually reflected through the development and/or the introduction of green brands. Through those green brands, companies can market their green product and create awareness toward their effort to be green. The Organization for Economic Cooperation and Development identifies the green products as the products that "prevent, limit, reduce, or correct harmful environmental impacts on water, air, and soil" (OECD, 2009). Companies face the challenge of developing their brands to be green and of creating a green brand image. However, despite knowing that green products are environmentally-friendly and aid towards environmental sustainability, non-green products are often preferred by price-sensitive consumers as they tend to be cheaper than green products (Lim, W.M., 2013). On the other hand, the green purchasing decision of fast-moving consumer goods and everyday products offers an opportunity to produce benefits to the environment by substituting high-impact products with environmentally friendlier products (Moser, A.K., 2015) and creates opportunities for business as research found that companies with green orientation achieve higher profitability and market share (Menguc and Ozanne, 2005).

Personal care products' market sales value in the Netherlands reached two billion euro in 2017 (Statista, 2017). Revenue in the Cosmetics & Personal Care market amounts to €2,845m in 2019. The market is expected to grow annually by 0.5% (Statista Consumer market outlook, 2019). Potential growth is expected in the Skincare market, by 2025 the market is estimated to be 189.3 billion U.S. dollars (Statista, 2019). Therefore, many companies are launching green products or adding green products to their portfolio. For example, Unilever an FMCG giant launched its first fully green brand (Love, Beauty, and Planet) in 2018 and it promises that all ingredients will come from certified sustainable sources by 2020. Unilever also expecting that in 2020 all their plastic packaging will be recyclable.

L'Oreal also launched a new sustainable label called Seed Phytonutrients in 2018. L'Oreal identifies Seeds as a green skincare line and its brand's mission is to plant the seeds of health, well-being, and sustainability for future generations.

This thesis will offer brand managers insight about the drivers of a green product purchasing decision, besides, it will give recommendations regarding the consumers' perception of green and eco-friendly products and how to develop the green brand in alignment with customers' needs and enhance and improve the factors that have a significant effect on the purchasing intention of personal care products.

## 1.4 Central Research Question and Empirical Questions:

The main purpose of this research is to answer the following question:

**What are the factors that influence consumers' purchasing intentions of green personal care products in the Dutch market?**

Further Theoretical Questions:

- What is green purchasing and green products?
- What is the theory of planned behavior?
- What are the important factors that influence purchasing intentions?
- To what extent the attitude toward personal green products affect purchasing intentions?

Further Empirical Questions:

- What are the important factors that affect attitudes towards buying green personal care products?
- What are the factors that influence both attitudes and intentions to buy green personal care products?
- What effect does gender have on the intentions to buy green personal care products?

## 1.5 Research Approach And Chapters Content:

This thesis will research the most important factors that influence the intentions and attitude towards buying green personal products in the Dutch market. The theory of planned behavior (TPB) used by Ajzen (2002) is considered as a base to evaluate the relevance and effect of each variable on the current consumer's behavior.

A conceptual model will be developed and concluded from the results of the literature study. The main factors that affect the dependent variable which is consumers' intention to buy green personal care products will be determined. Qualitative research will be conducted through an online questionnaire, which will include questions about the factors that might influence the purchasing intentions and attitude of green personal care products in addition to demographical questions. After collecting the data, the analysis will be performed with the aid of the statistical program SPSS to test the relationship between the variables in the conceptual model. The variables that are being tested are latent and to make sure all of them have similar patterns of responses factor analysis will be performed.

Chapter 1: offers an introduction to the research problem and defines the center research question. This chapter introduces the academic and managerial relevance of the study and defines the structure of this research.

Chapter 2: This chapter will offer a literature review over the decision-making process of green products and the theory of planned behavior model, in addition to the main factors that were reported to influence the intentions to buy green personal care products.

Chapter 3: This chapter will showcase the research methodology that will be used to test the conceptual model and answer research questions. Methodology description, structure, measurements, in addition to data collection and analysis.

Chapter 4: This chapter will consist of two parts. The first part will enlist the outcome of the interviews with customers. The second part will contain the results of the quantitative analysis

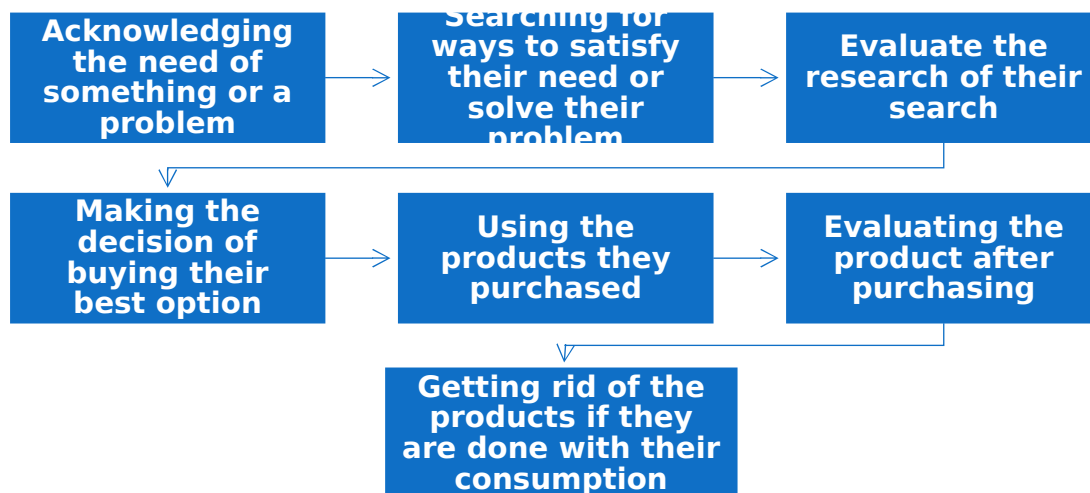
Chapter 5: The conclusion of the performed research will be offered in this chapter. A comparison between the finding in the literature study and the findings of this research will be offered. Additionally, the research empirical questions will be answered and a set of recommendations to brand managers will be introduced. Finally, the limitation of this research and recommendations for further research will be discussed.

## Chapter 2: Literature Study:

Previous literature has been reviewed to evaluate and understand consumers' decision-making process of green products and the theory of planned behavior model. The literature review offered insight on additional main factors that might influence the intention to buy green personal care products.

### 2.1 Consumer Decision-Making Process for Green Products:

Understanding the behavioral choices that customers make regarding purchasing certain products or services requires knowing the cognitive decision-making process that customers make to finalize their decision with purchasing the product. Blackwell et al. (2005) defined the main stages that customers go through to buy products as described in the following figure:



*Figure 1 - Consumers' Purchasing stages*

These stages help with recognizing the way consumers think and make the purchasing decision. Customers with different interests will have different attributes to focus on when searching and evaluating their alternatives before purchasing and therefore, green consumers and green products need to be identified to get a better understating of the attributes that matter for consumers' decision-making regarding green products.

Researchers have been interested in getting a better understanding of the attributes that affect the decision-making process of purchasing green products especially after the increase in the demand for more environmentally-friendly products and the increase of the supply of green products (Nimse, P. et al, 2007). Therefore, different definitions of the green consumers were found in the literature but many of them share the same core as defining the green consumer as socially conscious who

takes into account that his/her purchasing habits will affect the environment (Webster, 1975, p. 188), and tries to use the least amount of environmentally toxic and harmful material (Kilbourne et al., 1997). The green consumers also encourage the change in social behavior toward better products by using his/her purchasing power (Moisander, 2007).

The increase in environmental awareness and in the damage caused to natural resources by using non-green products created a different type of consumption known as “green consumerism” (Moisander, 2007), green purchasing and green purchasing behavior (Chan, 2001). The definition of green purchasing is the same as a green consumer, in both definitions consumers want to change their consumption behavior to be more environmentally-friendly and try to avoid toxic substances that hurt the environment (Chan, 2001). However, green purchasing is determined by green purchasing intentions and green behavior. Green purchasing intention is consumers’ willingness to buy green products while intentions measure the effect of the motivational factors that determine the green purchasing behavior of consumers (Ramayah, Lee, and Mohamad, 2010).

Even though consumers take into consideration that they need to adopt a more sustainable living to protect the environment from the harmful substances, the decision to buy products that we use becomes more difficult and complex and an issue of a “motivational and practical complexity of green consumption” arose (Moisander, 2007).

Getting a better understanding of the behavioral motivations behind green buying behavior requires a good definition of what a green product is. A green product is a product which meets customers’ needs and demand without harming the environment (Shamdasami, Chon-Lin, and Richmond, 1993), besides, green products use better materials that are eco-friendly including the product itself and its packaging (Chan and Chai, 2010).

Elkington et al. (1990) offered the following criteria to distinguish environmentally friendly products and services: Green products:

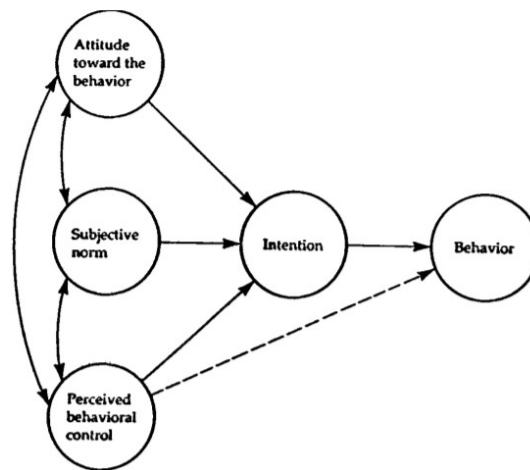
- Do not endanger the health of humans or animals.
- Do not harm the environment during manufacturing, use or disposal.
- Do not over-consume natural resources during its manufacturing, use or disposal.
- Do not cause waste due to its packaging or short life span.
- Do not test or have cruelty on animals or use.
- Do not use scarce materials from the environment.

In this thesis, the main definition of green products that will be used is that green product is the product that meets consumers’ needs without damaging the environment will be used.

## 2.2 The Theory of Planned Behavior:

According to the “theory of reasoned action” by Ajzen and Fishbein (1980), “people consider the implications of their actions before they decide to engage or not engage in a given behavior” (Fishbein, 1980).

The theory of planned behavior (TPB) argues that people evaluate the options they have to create a better understanding and thereafter, form their attitudes, norms, and intentions before actually change their purchasing behavior (Gupta, S. and Ogden, D.T., 2009).



*Figure 2 - The Theory of Planned Behavior (Ajzen, 1991)*

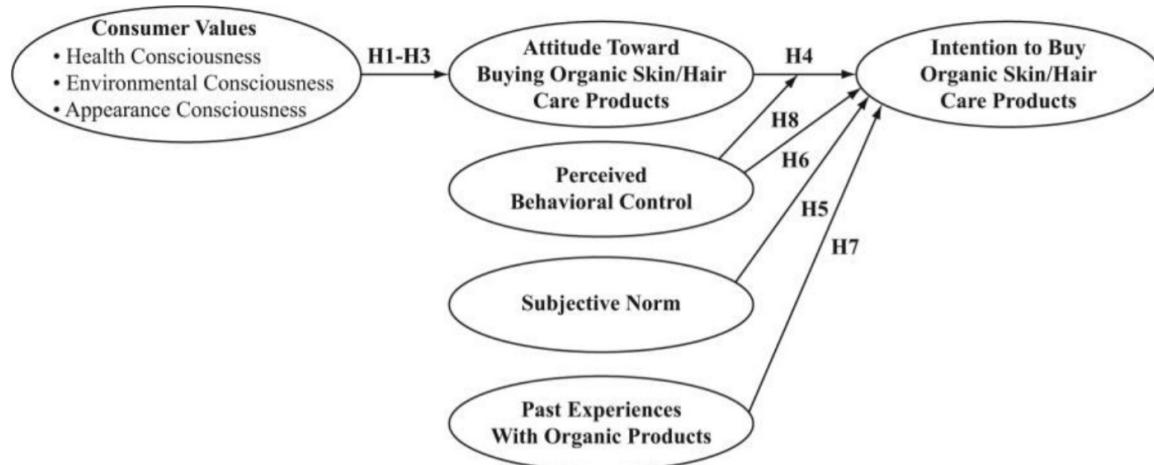
Ajzen (2002) reported that the behaviors that are perceived easier to perform will be the one performed and this perception is also linked with a person's beliefs and the intentions of performing a certain behavior. Additionally, Positive attitude toward a behavior, subjective norms and high perceived control affect the intention to perform a certain behavior positively (Ajzen, 2002). Hence, the theory of reasoned actions argues that consumer's environmental and health beliefs, environmental consciousness and green buying behavior are affected by past experiences, social norms, and environmental awareness. However, this model may not be accurate in predicting attitude effects on the green consumer's behavior (Gupta, S. and Ogden, D.T., 2009).

Gupta, S. ( 2009 ) suggested that understanding the decision to purchase a green product is complex, it does not only depend on the individual preference of the green products but it also may be affected by social motivations that prefer the collective gain over the individual one.



Theory of planned behavior TPB is widely used in researching the different attitudes of the model such as personal beliefs and their effects on the green buying behavior Kalafatis et al., 1999; Yeon Kim and Chung, 2011; Ahn et al., 2012; Chan, 2002). Kalafatis et al. (1999) applied TPB to study the Greek and British customers' intention to buy eco-friendly products by researching the effect of personal beliefs on attitudes, subjective norms, perceived control and their effect on intentions to buy green products. Their study reported that social norms influence the intention to buy green products. TPB was applied by Ahn et al. (2012) to research Korean consumers' pro-environmental behavior, the study reported that social norms and environmental concerns were essential attributes in predicting the buying behavior of green products.

Yeon Kim and Chung (2011) applied the TPB to investigate the effect of consumers' values and past experiences on the intention of purchasing organic personal care products (Figure 3). Their research indicated that environmental consciousness and appearance consciousness has a positive effect on the attitude toward buying organic personal care products. Their research will be taken as a base for this thesis to study the effect of consumers' values, perceived behavioral control, subjective norms and past experiences with green products on the attitude toward buying green personal care products and the intention to buy green personal care products.



*Figure 3 - TPB Applied to research Organic Personal Care Products (Kim and Chung, 2011)*

Despite the wide use and popularity of the TPB, the process of buying green products is still complicated because consumers' attitudes can be influenced by their environmental concerns and social norms but their attitude is not always translated into purchasing.

## 2.3 Purchasing Intention of Green Products:

TPB focuses on individual intentions of performing a certain behavior to explain purchasing behavior (Tarkiainen, 2005). According to Zeithaml, Berry, and Parasuraman (1996), intentions are influenced by offering positive/negative recommendations, willingness to pay extra for the products, or intentions to repurchase the products. Purchasing intention is considered the main criterion in predicting purchasing behavior and will be the main predictor for the purchasing behavior of organic personal care products (Yeon Kim, 2011).

In an attempt to get a better understanding of the factors influencing the purchasing intention of green personal care products, the factors studied in TPB model in addition to other factors that might have an important effect on the purchasing intentions of green personal care products will be reviewed to develop the research hypotheses and the conceptual model.

## 2.4 Environmental Consciousness:

The theory of planned behavior suggests that consumers' values affect their attitudes and behavior. Environmental consciousness is one of the factors that affect consumers' attitudes towards buying greener products (Yeon Kim, 2011) and also urge consumers to change their purchasing habits to be more environmentally friendly and therefore improve the environment (Peattie, 2001; Schlegelmilch et al., 1996; Chase, 1991). In this thesis environmental consciousness is the extent that consumers are driven toward their concern for the environment (Dunlap and Jones 2002). Understanding consumer behavior requires testing their environmental concern (Paladino, 2005).

Yeon Kim and Chung (2011) focused on the value from a psychological point of view and their study suggested that consumers that differ in their values also differ in their attitude toward buying organic personal care products as they expected similarities between the purchasing behavior between organic food and personal care products. However, food consumption may have a different value and importance to consumers than personal care products. Environmental consciousness has a positive effect on the attitude toward buying organic personal care products (Yeon Kim, H., 2011).

Young et al. (2010) studied the green customer's purchasing of technology products in the UK, the study concluded that consumers find difficulties changing their purchasing attitude according to their environmental concerns. However, Laroche et al. (2001) reported that consumers' environmental concerns have a significant effect on their intention to buy green products. Another study about the hotel industry suggests that environmental consciousness has a positive influence on green purchasing (Han et al., 2010).

In a study evaluating the effect of environmental concern on customer's retail buying behavior of green products, it was reported that environmental concern has a positive effect on the intention to buy green products (Junior, S.S.B, et al., 2015)

Thus, the following hypotheses are proposed:

**H1a: Environmental Consciousness will have a positive effect on the attitude toward buying green personal care products.**

**H1b: Environmental Consciousness will have a positive effect on the intention to buy green personal care products.**

## 2.5 Health Consciousness:

Health-conscious consumers engage in more healthy behavior to maintain their wellbeing (Newsom et al. , 2005). Many articles focused on the organic food industry and the effect of health concerns on the purchasing intentions of organic food, in these studies health consciousness was an important factor in determining the attitude and the intentions of buying organic food products (Padel & Foster, 2005; Baker et al. 2004; Chen, 2009; Magnusson et al. 2003; Zanolli & Naspetti, 2002; Tregear et al. 1994). However, Michaelidou and Hassan (2008) found that health consciousness has the least important effect on the attitude to buy organic food products.

Wen and Li (2013) reported that health consciousness has a significant positive effect on student's purchasing intentions of green products in Taiwan.

Regarding personal care products, consumers with health consciousness pay attention to the ingredients used in producing the products and they also consider if these ingredients are harmful to their skin and body or safe to use ((Johri and Sahasakmontri, 1998). Yeon Kim and Chung (2011) reported in their study of the purchasing intentions of organic personal care products that health consciousness had less effect on the attitude toward buying organic personal care products than environmental consciousness and appearance consciousness.

Most of the studies focused on food rather than personal care products. However, consumers who are concerned about their health will also want to use green personal products. Therefore, the following hypotheses are proposed:

**H2a: Health Consciousness will have a positive effect on the attitude toward buying green personal care products.**

**H2b: Health Consciousness will have a positive effect on the purchasing intention of green personal care products.**

## 2.6 Appearance Consciousness:

Appearance is one of the important factors that influence the attitude toward buying green personal care products (Yeon Kim, 2011).

Consumers use personal care products to increase their self-esteem and satisfy the need for a good appearance (Todd, 2004). People who are conscious about their appearance prefer to use greener personal care products rather than other options to enhance their looks (Tirone, 2007).

Yeon Kim and Chung (2011) reported that appearance consciousness has a significant positive effect on the attitude towards buying organic personal care products.

This thesis will study the effect of appearance consciousness on the attitude and the purchasing intentions of green personal care products and therefore, the following hypotheses are proposed:

**H3a: Appearance Consciousness will have a positive effect on the attitude toward buying green personal care products.**

**H3b: Appearance Consciousness will have a positive effect on the intention to buy green personal care products.**

## 2.7 Subjective Norms:

Subjective norms reflect how consumers perceive the pressure from society regarding agreeing or disagreeing with their behavior (Ajzen, 1991). When consumers think that their consumption of organic personal care products will gain more approval from the group they belong to, this approval will affect their intentions to buy organic products (Yeon Kim, 2011). Besides, research about green consumer behavior reported a significant effect of subjective norms on the intentions to buy green products (Bamberg, 2003; Kalafatis et al., 1999).

Moreover, Chang (1998) researched the relationship between subjective norms and attitudes towards purchasing behaviors, the study reported that subjective norms have a positive effect on attitudes. Additionally, Tarkiainen (2005) reported that subjective norms are not independent of attitude as the TPB suggests and it has a significant effect on attitudes toward buying organic food products.

Thus, after the previous review the following hypotheses are proposed:

**H4a: Subjective Norms will have a positive effect on the attitudes toward buying green personal care products.**

**H4b: Subjective Norms will have a positive effect on the intention to buy green personal care products.**

## 2.8 Past experience with Green Products:

The theory of planned behavior suggests the factors that determine intentions and behaviors are based on the set of information and experiences individuals have, and part of it is based on the past experiences after doing a certain behavior (Ajzen, 1991). Consumers' past experiences with green products could be “crucial in forming the product specific perception that would lead to future purchase intentions” (D'Souza et al., 2006).

Understanding the impact of a certain decision on the purchasing intention and the attitude toward certain behavior requires understanding the values and beliefs that led consumers to make the purchasing decision (Hoyer, 2004; Weigel, 1983)

Researching the effect of past experiences with organic personal care products on the intentions to buy the products, Yeon Kim and Chung (2011) reported that there is a significant relationship between past experiences with green products and the intention to buy it.

Therefore, the following hypotheses are proposed:

**H5a: Consumers' past experience with green personal care products will have a positive effect on the attitude toward buying green personal care products.**

**H5b: Consumers' past experiences with green personal green products will have a positive effect on the intention to buy green personal care products.**

## 2.9 Perceived Behavioral Control:

Perceived behavior control means the extent to which consumers can control the factors affecting their purchasing behavior; consumers who believe that they have a better control usually can determine their intentions to perform a certain purchasing behavior (Ajzen, 1991).

Thus, when people believe that they have the resources to make a decision, their perception of control is higher and hence, their purchasing intentions get higher too (Yeon Kim, H., 2011).

Even though consumers might have a positive attitude toward a behavior but if this behavior consists of some difficulties to complete then the attitude does not turn to purchase intention (Chen, 2007). It is also worth to mention that the relationship between attitudes and intentions is inconsistent because other factors that are not under the control of customer might play a role in affecting the intentions (Vermeir & Verbeke, 2006).

Regarding green personal care products, Yeon Kim and Chung (2011) reported in their study that when consumers perceive stronger behavioral control, their attitude and intention to buy the organic personal care products were positively affected.

Thus, the following hypotheses are proposed:

**H6a: Consumers' perceived behavioral control will have a positive effect on the attitude towards buying green personal care products.**

**H6b: Consumers' perceived behavioral control will have a positive effect on the intention of buying green personal care products.**

## 2.10 Price Consciousness:

Price consciousness is recognized as consumers' efforts to pay the lowest price possible for the products (Lichtenstein et al. 1993). Price is the amount of money that consumers give in exchange for a product/service and the price that the product/service means to them (Zeithaml, 1988). Sometimes consumers pay more attention to price than quality (Yoon, Oh, Song, Kim, & Kim, 2013). Monroe and Petroshius (1981) defined a price-conscious customer as the consumers who are not willing to pay a price higher than their expectations for the product and might withdraw from the purchasing if the prices are higher than what they are willing to pay. Additionally, high price consciousness will have a negative effect on the purchasing intentions (Alford, 2002).

In case of purchasing green products, the gap between attitude and behavior was bigger because of the high prices, also, high prices were more important to the consumer than their environmental and ethical concerns (Connell, 2010; Gleim et al., 2013; Padel and Foster, 2005; Vermeir and Verbeke, 2006). Price-conscious consumers have high price sensitivity and thus price consciousness have a negative effect on green purchasing attitude and intentions (Ansar, 2013). Thus, the following hypotheses are proposed:

**H7a: Price Consciousness will have a negative effect on the attitude toward buying green personal care products.**

**H7b: Price Consciousness will have a negative effect on the purchasing intentions of green personal care products.**

## 2.11 Green Brand Image:

Many researchers tried to understand how brands affect customers' behavior. The most used model to understand how customers respond to



brands is Keller's (1993) customer-based brand equity model. Keller (1993) defines brand equity as "the differential effect of brand knowledge on consumer response to the marketing of the brand" and brand image as "strong, favorable, and unique brand associations of the brand in memory" (Keller, 1993). Brand image has a direct effect on customers' decision to buy the product (Ryu et al., 2008), especially in the search and evaluation stage before the actual buying (Zeithaml, 1988). Brand image plays an important role in helping customers identify their needs and helps to distinguish the brand (Anwar, Gulzar, Sohail, & Akram, 2011).

According to Chen (2010) green brand image as "a whole range of impressions, conceptions, and apprehensions towards a brand in the customers' memory which is correlated to the sustainability and eco-friendly concerns".

Min Han (1990) reported in his study about the relationship between image and attitude that image has a positive effect on attitudes and can have an essential role in determining the purchasing intention of a product.

Moreover, Huang et al. (2014) researched the relationship between green brand and its effect on purchasing intention. This study found that green brand image has a positive effect on the attitude toward buying green products and on the purchasing intention of the green product. The same results were reported by Chen (2010).

Few studies were interested in researching the effect on green brand image on green purchasing behavior regarding personal care products. Therefore, the following hypotheses are proposed:

**H8a: Green Brand Image will have a positive effect on the attitude toward buying green personal care products.**

**H8b: Green Brand Image will have a positive effect on the purchasing intentions of green personal care products.**

## 2.12 Attitude towards buying Green Products:

Attitude is defined as "an enduring set of beliefs about an object that predisposes people to behave in a particular way toward the object" (Weigel, 1983). Customers attitude toward a certain behavior reflects the likelihood of performing that behavior (Yeon Kim, 2011; Ajzen, 1985 ). However, attitudes are not always translated into actions, even environmentally conscious customers who have a positive attitude toward buying green products might not finalizing their attitude by purchasing green products (Vlosky et al., 1999). Many studies tried to understand the relationship between attitudes and the purchasing

intention of green products. Some reported that customers who have high environmental concerns are more likely to buy green products (Schuhwerk & Lefkokk-Hagius, 1995; Chan, 1996). Furthermore, attitudes are considered the most essential predictor of consumers' willingness to pay more for eco-friendly products (Laroche et al., 2001) and customers who have a positive attitude toward the environment have a higher likelihood to consume greener products (Balderjahn, 1988).

On the other hand, many researchers reported an inconsistency or a "gap" between attitudes and purchasing intentions (Vermeir and Verbeke, 2006; Chen and Chai, 2010; Wheale and Hinton, 2007), this discrepancy is known as 'green purchasing inconsistency' or 'green attitude-behavior gap'. Laroche et al. (2002) reported that customers who acknowledge themselves as environmentally conscious are willing to change their consumption behavior if it does not cost them any personal expenses or changes in their lifestyle. Mintel (2006) found that few customers who are pro-environmental translated their attitudes into green buying behavior.

Regarding green personal care products, environmental consciousness and appearance consciousness were found to have a positive effect on the attitude towards buying organic personal care products (Yeon Kim & Chung, 2011). Moreover, consumers' perceived behavioral control enhanced the translation of positive attitudes towards buying intentions of organic personal care products (Yeon Kim & Chung, 2011).

In conclusion, the relationship between attitudes and intentions is still ambiguous and to grasp a better understanding of the relationship between attitudes and intention further analysis is required by including more relevant variables that might influence both attitudes and intentions. Therefore, the following hypothesis is proposed:

**H9: The attitude toward buying green personal care products mediate the relationship between the independent variables and the purchasing intention of green personal care products.**

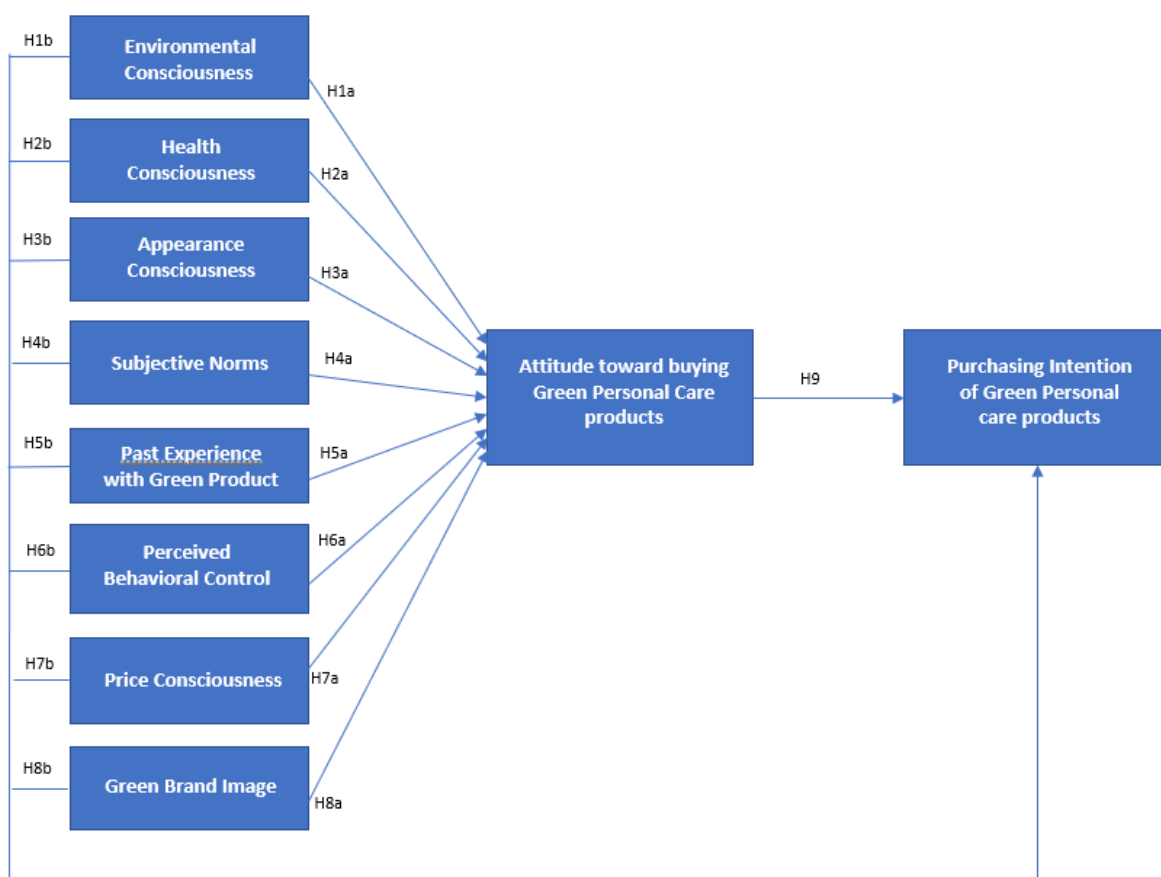
### 2.13 Research Framework and Conceptual Model:

After a thorough study of the available literature regarding green products, it is concluded that the TPB model does not offer a full understanding of the decision-making process of green products and it ignored important factors that might influence the purchasing intentions of green products such as price sensitivity. Yeon Kim and Chung (2011) applied the TPB model to understand the purchasing behavior of organic personal care products. Their study found that there is a difference between the purchasing behavior of organic food and organic personal care products. The limitation was to consider more variables that



influence the purchasing attitudes and intentions and considering a more general product category.

In this thesis, the following model is developed (Figure 4). Using this model, emotional and rational factors that might affect the attitudes and intentions to buy green personal care products will be tested. Personal care products are different from food but they are also essential in daily life, for instance, shampoos and hand soap are used daily. Therefore, variables such as price consciousness and green brand image are added to the variables of the TPB model.



*Figure 4 - - Initial Conceptual Model*

### Hypothesis Overview:

*Table 1 - - Initial Conceptual Model*

H1a: Environmental Consciousness will have a positive effect on the attitude toward buying green personal care products.
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H1b: Environmental Consciousness will have a positive effect on the intention to buy green personal care products.
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H2a: Health Consciousness will have a positive effect on the attitude toward buying green personal care products.
H2b: Health Consciousness will have a positive effect on the purchasing intention of green personal care products.
H3a: Appearance Consciousness will have a positive effect on the attitude toward buying green personal care products.
H3b: Appearance Consciousness will have a positive effect on the intention to buy green personal care products.
H4a: Subjective Norms will have a positive effect on the attitudes toward buying green personal care products.
H4b: Subjective Norms will have a positive effect on the intention to buy green personal care products.
H5a: Consumers' past experience with green personal care products will have a positive effect on the attitude toward buying green personal care products.
H5b: Consumers' past experiences with green personal green products will have a positive effect on the intention to buy green personal care products.
H6a: Consumers' perceived behavioral control will have a positive effect on the attitude towards buying green personal care products.
H6b: Consumers' perceived behavioral control will have a positive effect on the intention of buying green personal care products.
H7a: Price Consciousness will have a negative effect on the attitude toward buying green personal care products.
H7b: Price Consciousness will have a negative effect on the purchasing intentions of green personal care products.
H8a: Green Brand Image will have a positive effect on the attitude toward buying green personal care products.
H8b: Green Brand Image will have a positive effect on the purchasing intentions of green personal care products.
H9: The attitude toward buying green personal care products mediate the relationship between the independent variables and

the purchasing intention of green personal care products.

## Chapter 3: Research Methodology:

### 3.1 Research Methodology Description:

The purpose of this research is to investigate the factors that influence the Dutch consumers' purchasing intentions and attitudes toward green personal care products. Therefore, the insight of the factors that Dutch consumers consider when they evaluate and make the purchasing decision of green personal care products is essential. Getting this insight will be done by conducting qualitative research in addition to quantitative research. The qualitative research (semi-structured interviews) will validate the research hypothesis and help sculpture the conceptual model according to the factors that affect Dutch consumer intentions and attitude toward buying green personal care products.

Thus, It is crucial to elaborate more on the purpose of combining qualitative and quantitative research methods before going further. Qualitative research is used to get an 'in-depth' understanding of customers' motivations, attitudes, and behaviors. This type of research method can provide a deeper level of understanding of customers' behavior (Barnham, 2015). On the contrary, Quantitative research is an empirical way to measures the relationship between variables and it focuses mainly on numerical data (Punch, 2014). The conceptual model developed in this thesis (Figure 4) has equal importance to emotional and rational variables that might influence attitudes and purchasing intentions of green products which might not be the case for Dutch consumers. Therefore, to further develop the model and perform high-quality research, it is essential to combine qualitative and quantitative research methods.

The research methodology will be twofold: qualitative and quantitative research.

First, qualitative research will be conducted to grasp a better understanding of the attitudes and motivation to buy green personal care products in the Dutch market. It also will help to investigate why the attitude-behavior gap is accruing when purchasing green personal care products. This research will be conducted using semi-structured interviews with customers.

Second, quantitative research using a questionnaire survey will be conducted. The survey will be designed to test the results of qualitative research. The main variables which have an influence on the attitude and the intention to buy green personal care products will be tested after developing the model according to the results of the qualitative study.

## 3.2 Qualitative Data Collection Methodology:

An essential element in conducting qualitative research is selecting an appropriate data methodology. Observation, mail questionnaires, direct observation, personal interviews, written questions, and the reviewing of documents are possible methods to consider when choosing data methodology (Stake, 1995). For this research personal interviews and written questions were considered the most suitable methods for data collection. Interviewees expressed their willingness to participate, answer all questions and free time for the interview. Face-to-face interviews were chosen as the main method to conduct the personal interviews because this method enables more control over the data collection and offers in-depth data about the factors that influence the consumption behavior and the factors that influence consumers' attitudes.

This part of the research will be conducted using semi-structured interviews. Semi-structured interviews are flexible and designed with open-end questions. This method was chosen to allow interviewees to explain their choices and behavior rather than only reporting it. The main focus of the interviews will be testing the hypothesis.

### 3.2.1 Interview structure:

The interviews' structure was predetermined which means the questions were asked with the same structure. The interview questions were determined according to the literature study findings:

- Starting with an explanation of the study and the purpose of the interview. Interviewees are encouraged to answer or add to the questions in the way they find suitable and It is also allowed for interviewees to withhold from answering any question.
- General question to put the interviewee at ease (e.g. gender, age, employment status)
- Specific questions regarding green personal care products (e.g. Which brands in the market would you describe as green?)
- Lastly, personal questions about the interviewees' motivations and preferences (e.g. Describe what buying green personal care product would be to you?, How do you describe your concern about the environment?)

### 3.2.2 Semi-Structured Interviews:

The qualitative research is based on 8 interviews with consumers living in the Netherlands and shopping for personal care products in Rotterdam city. The main goal of the interviews was to gain insight into what

consumers consider when they shop for personal care products. Interviewees were asked to participate in the interview while doing their shopping. Participants were chosen according to their gender, age, and background. This selection aims to offer insight into the consumption behavior of consumers from different education and backgrounds.

The interviews were conducted following the main interview structure. All interviewees were asked their willingness to answer questions regarding the green consumption behavior of green personal care products. Adaptationally, all interviewees were asked if they prefer to have the interview by e-mail, phone or face-to-face. All 8 interviews were held face-to-face in a café.

Interviewees were informed about the purpose of the study, the content of the interview and the expected time that the interview will take. Interviewees were informed that they can withhold answers to any question. All participants approved to record the interviews digitally. The interview started with generic questions about the opinion of the interview about the green personal care products available in the market. The interviewees were asked to explain the reasons that encouraged them to purchase green personal care products. The interview question focused on understanding the factors that influence consumers' attitudes toward green personal care products and consumers' purchasing intentions. Lastly, each participant was asked to give their personal view about the factors that determine their intentions and the factors that help shape their attitudes.

Research bias was limited by giving full attention to the bias issues that may occur.

The first issue is the ontology. To minimize this issue, the interviewee was asked repeatedly if their answers reflected their consumption behavior in reality. The researcher tried to maintain eye contact during the data collection and data analysis.

Another bias issue that may occur is axiological bias. This occurs when the values of the researcher/interviewer affect the research process and data reporting. This bias was prevented by using the semi-structured interview questions and ask all the questions objectively while being aware of this bias during the analysis process.

Conducting the interviews face-to-face enabled more control over the data collection process. However, it was prone to another bias which is unconsciously influencing the interviewees by the body language and the facial expressions of the interviewer. The researcher used the semi-structured questionnaire consistently during the interview.

Lastly, the interviewees were given the full freedom to answer the questions honestly and without any influence of the interviewer. The

researcher ensured that all barriers that might influence the interviewees were removed. This research was conducted with care and the required research ethics.

The table below provides a general overview of the performed interviews:

*Table 2 - Overview of the conducted interviews*

<b>Interview ee</b>	<b>Job</b>	<b>Date</b>	<b>Time</b>		<b>Interview type</b>	<b>Interview language</b>
Respondent 1	Unemployed	1/11/2019	10:30 - 11:15	-	Face-to-face	English
Respondent 2	Innovation Manager	1/11/2019	15:00 - 15:30	-	Face-to-face	English
Respondent 3	Financial Controller	5/11/2019	13:30 - 14:10	-	Face-to-face	English
Respondent 4	Working Student	6/11/2019	11:30 - 12:00	-	Face-to-face	English
Respondent 5	Student	6/11/2019	16:40 - 17:15	-	Face-to-face	English
Respondent 6	Data Analyst	7/11/2019	19:00 - 19:30	-	Face-to-face	English
Respondent 7	Market Researcher	13/11/2019	19:00 - 19:30	-	Face-to-face	English
Respondent 8	Administrative Assistant	15/11/2019	15:45 - 16:20	-	Face-to-face	English

### 3.3 Quantitative Data Collection Methodology:

Primary data was collected on behalf of quantitative research. The purpose of the qualitative research was to study to what extent the relationship concluded from the literature study occur in the population. The possible primary data collection methods are an experiment, interview survey, mail survey, structured diary, and web survey (Hox, 2005). The empirical part of the study was conducted using an online survey that was shared and spread on the internet. The survey was published in December 2019 and the data collection lasted until the 15<sup>th</sup> of March 2020. The online survey was chosen to be an appropriate method for this study because it enables the researcher to gather responses from a large population in a relatively short period.

### 3.3.1 Survey and Questionnaire:

The questionnaire has been structure to test the results of the qualitative study and the conceptual model. The questionnaire has been designed using the Qualtrics Research Suite provided by the Erasmus University Rotterdam and It consists of open, multiple-choice and scale questions. The survey starts with general questions about participants and then in its second part questions about concerns, beliefs, and attitudes regarding green personal care products. The items and the scales that have been used in the survey were taken from previous literature. The questions in the second part were randomized to reduce the context effects (Sparks & Shepherd, 1992). Context effect occurs when the answer to one question influence the answer to the question that follows (Holyk, 2012). All the data collected from the questionnaire will be processed anonymously.

### 3.3.2 Sampling and Population:

This research is investigating the factors that influence consumers in the Dutch market, thus the questionnaire was adapted to suit Dutch consumers. The data collected for this research is considered primary data. Morse (1994) recommended having from 100 to 200 observations as a minimum sample size for qualitative studies. This study had 219 participants to ensure the reliable statistical power of the research.

The questionnaire was published online on Facebook, Instagram, and Survey Swap platforms and shared with the researcher network. The decision to publish the survey online was made because 98% of the household (between 16 and 74 years old) have access to the internet in the Netherlands (CBS, 2019). Furthermore, 82.1% of the population between 14 and 44 years old and 57.5% between the age of 45 and 64 years old use social media platforms (CBS, 2019).

Due to limited resources, convenience sampling will be used in this thesis to collect primary data. Convenience sampling is a type of nonrandom sampling where the researchers have easy access to the sample (Etikan, 2016), in this case, the survey will be spread in the researcher's social network (LinkedIn, Facebook, Instagram .. etc) and connections.

### 3.3.3 Variables and Measures:

The following table summarizes the variables and measurements used in this research:

*Table 3 - Variables and Measurements*

<b>Variable</b>	<b>Number of items</b>	<b>Scale developed by</b>	<b>Scale applied by</b>	<b>Reliability</b>
<b>Environmental Consciousness</b>	4	Maloney and Ward (1973)	Yeon Kim and Chung (2011)	$\alpha = 0.80$

<b>Health Consciousness</b>	4	Kraft and Goodell (1993)	Jayanti (1998)	$\alpha = 0.75$
<b>Appearance Consciousness</b>	3	Cash and Labarge (1996)	Yeon Kim and Chung (2011)	$\alpha = 0.84$
<b>Subjective Norms</b>	4	Ajzen and Fishbein (1980)	Taylor, and Todd (1995)	$\alpha = 0.95$
<b>Past Experience with Green Personal Care Products</b>	1	Yeon Kim and Chung (2011)	Yeon Kim and Chung (2011)	
<b>Perceived Behavioral Control</b>	3	Ajzen (2002)	Yadav and Pathak (2016)	$\alpha = 0.75$
<b>Price Consciousness</b>	5	Alford and Biswas (2002)	Alford and Biswas (2002)	$\alpha = 0.90$
<b>Green Brand Image</b>	4	Chen (2010)	Chen (2010)	$\alpha = 0.75$
<b>Attitudes</b>	4	Conner et al. (1999)	Yeon Kim	$\alpha = 0.75$
<b>Purchasing Intentions</b>	3	Kim et al. (2013)	Yadav and Pathak (2016)	$\alpha = 0.86$

**- Environmental Consciousness:**

Four item scale measurements were chosen ( $\alpha = 0.80$ ). The items were developed by Maloney and Ward (1973) (e.g. "When I think about the ways industries are polluting the environment, I get frustrated and angry") and used by Yeon Kim and Chung (2011). All items were measured with a 7-point Likert scale.

**- Health Consciousness:**

Four items were used ( $\alpha = 0.75$ ). The scale was developed by Kraft and Goodell (1993) and adapted from Jayanti (1998) (e.g. "I usually read the ingredients on food labels"). The scales were measured using a 7-point Likert scale.

**- Appearance Consciousness:**

This variable was measured using three items scale ( $\alpha = 0.84$ ). The items were developed by Cash and Labarge (1996) and adapted from Yeon Kim and Chung (2011) (e.g. "What I look like is an important part of who I am"). 7-point Likert scales were used to measure this variable.

**- Subjective Norms:**

Four items were measured ( $\alpha = 0.95$ ) (e.g. "People who influence my behavior would approve of me buying green personal care products"). the items were developed by Ajzen and Fishbein (1980) and adapted from



Taylor, and Todd (1995). Subjective norms were measured using a 7-point Likert scale.

- **Past Experience with Green Personal Care Products:**

Only one item was adapted from Yeon Kim and Chung (2011) (e.g. “ How many green products have you purchased in the past three months?”).

- **Perceived Behavioral Control:**

Three items were measured on a 7-point Likert scale ( $\alpha = 0.75$ ). The scale was developed by Ajzen (2002) (e.g. “I believe that I have the resources and the ability to buy green personal care products”, “ If I want I could easily buy green personal care products”) and applied by Yadav and Pathak (2016). This scale is measured on a 7-point Likert scale.

- **Price Consciousness:**

Five items scale was used ( $\alpha = 0.90$ ). The scale was developed and adapted by Alford and Biswas (2002) (e.g. “ I am willing to go to extra effort to find lower prices”). The items were measured on a 7-point Likert scale.

- **Green Brand Image:**

Five items scale were used ( $\alpha = 0.75$ ). The scale was developed and adapted from Chen (2010) and measured using a 7-point Likert scale (e.g. “ The brand is regarded as the best benchmark of environmental commitments”).

- **Attitudes:**

Four items were measure ( $\alpha = 0.75$ ). The scales were adapted from Conner et al. (1999). Each item was measured on a seven-point semantic differential scale (e.g. bad/good, unpleasant/pleasant, foolish/wise, harmful/ beneficial).

- **Purchasing Intentions:**

Three items scale was used ( $\alpha = 0.86$ ). The scale was developed by Kim et al. (2013) and adapted from Yadav and Pathak (2016) (e.g. “I am willing to purchase green products for personal use”).

### 3.3.4 Pilot Testing:

It is crucial to ensure that the survey is understandable to the majority of people from different specializations. Therefore, ten pilot tests were performed. The pilot test consists of three different stages. In the first stage, respondents were asked to read the questions out loud and share their thought processes to ensure that all the questions were understood

correctly. The second part was asking the participants about the structure of the questions (the wording) to avoid any misunderstanding of the questions or the scales. Lastly, participants were asked to identify any possible confusion regarding any of the questions. The participants' feedback was taken into consideration to further improve the survey structure. Afterward, the survey was ready to be launched.

## 3.4 Data Analysis Methodology:

### 3.4.1 Qualitative analysis:

The analysis has started by analyzing the results of the interviews and adjust the conceptual model accordingly.

The audio record of the interviews has good quality. All the interviews were transcribed. The transcript of the interviews was checked by listening to the audio and reading the text simultaneously. This procedure eliminated any misunderstanding of the interviewees' answers. The data collected in the interviews are anonymous to correspond to interviewees' preferences.

Analyzing the interview was done using the thematic analysis method. Braun and Clark (2012) define the thematic analysis method as a method that creates patterns and codes across the data set by organizing and identifying the insight offered. The data collected from the interviews were identified and indicated with codes using the coding list (Appendix A). All the answers that correspond to one of the researched variables were enlisted and compared. After comparing each respondent's answers and quotes a conclusion was reached (Appendix B).

### 3.4.2 Statistical Analysis:

The second part is cleaning the data collected from the questionnaire and remove low-quality responses. Thereafter the following tests will be conducted:

#### 3.4.2.1 Internal Reliability Test:

Internal reliability test will be conducted in SPSS to determine if the scales used in the questionnaire is a good fit to research purpose. Cronbach's alpha coefficients will be estimated and compared with the scales taken from the literature (Robinson, 2018). When using a Likert scale calculating Cronbach's alpha is a crucial step to ensure the internal consistency of the scales that are being used (Gliem & Gliem, 2003). According to (Mazzocchi, 2008) the coefficients must be between 1 and 0.9 to be excellent,  $0.9 < \alpha \leq 0.8$  to be good,  $0.8 < \alpha \leq 0.7$  to be acceptable. On the other hand, coefficients between  $0.7 < \alpha \leq 0.6$  are questionable,  $0.6 < \alpha \leq 0.5$  are poor, and  $< 0.5$  are unacceptable.

#### *3.4.2.2. Factor Analysis:*

Multi-item scales can be improved further by conducting Factor Analysis. In this thesis, Exploratory Factor Analysis (EFA) will be used to validate the scale items used in the questionnaire (Mazzocchi, 2008). EFA will help in reducing the number of dimensions to a less number of factors, thereby, analyzing the variance of a single item and the variance shared between items (Child, 2006).

Furthermore, it is important to test for multicollinearity before conducting EFA. By checking the bivariate correlation matrix, the factors that have high values and thus indicate that multicollinearity is present can be eliminated (Field, 2013). Field (2013) suggests eliminating one item for every two items that exhibit a correlation score of 0.8 or higher as the rule of thumb.

Finally, the SPSS output will be used to determine the final numbers of factors to retain. Eigenvalues will be assessed and the factors with eigenvalues less than one will not be considered for the analysis, and factors with an eigenvalue equal to or greater than one will be used (Mazzocchi, 2008).

#### *3.4.2.3 Regression Analysis – Conceptual Model:*

Multiple OLS regression analyses will be conducted to assess the effects of independent variables on the dependent variable in the conceptual model.

## Chapter 4: Research Outcome:

This chapter will consist of three steps:

The first step is the Qualitative Outcome: the data collected from the interviews offered an in-depth understanding of the factors that influence consumers' attitudes and intentions.

Second step: Improving the Conceptual Model: The interview results were analyzed and used to further improve the conceptual research model concluded from the literature study.

Third step: Quantitative Outcome: The quantitative research studied to what extent the relationship concluded from the qualitative study occurs in the population.

### 4.1 Qualitative Outcome:

The interviews were conducted with consumers that shop in the Netherlands. In total, 8 semi-structured interviews were conducted. The answers of each participant were enlisted and compared to test the relationship proposed in the conceptual model (Figure 4).

Interviewees were asked in the interview to mention their gender, age, relationship status, and employment status. Three males and five females were interviewed. Most of the participants are educated, education ranged from master's degree to HAVO. The customers who accepted to participate in the interview were young consumers between 23 and 33 years old. Many of the participants are in a relationship with and without children. Some participants are students, however, the majority were either unemployed or employed.

To evaluate how interviewees see the green personal care products in the market and what is their experience with it, each interviewee was asked to name the brand they perceive as green. The most common brand was Lush, Love Beauty and Planet, Yves Rocher and Dr. Organic. As participants explained, the main reason for this perception was how the brand distinguished itself as a green brand. For example, Lush uses recyclable packaging, it is against animal testing and promotes itself as natural handmade products. Yves Rocher claims that most of their ingredients are natural and give you the option to plant a tree as a gift for your order. Despite the popularity of these brands, three of the participants were not able to identify any of the brands in the market as green. For many participants, green products were not available in supermarkets or drugstores, also, they are usually in smaller sizes than usual products which makes it harder for families and people with lower income to consume.

Many interviewees prefer to use shampoos and facial creams as green. This preference was either due to past experience with the green products or due to concerns about appearance.

#### 4.1.1 Environmental Consciousness:

##### *4.1.1.1 How do you describe your concerns about the environment?*

Respondents 2 said the following “Environment is a hot topic so I am more conscious about it”, Respondents 4 also agrees “ It is a global issue, I am very concerned”. Most participants reported high concerns about the environment, participant 6 said “ I am very concerned about the environment” and that same high concern was shared by respondent 7 and 8. While participants shared their concerns about the environment, participant 1 was more action-oriented and said the following “I try to be environmentally friendly when I can” and then added that “whenever it is possible, I try to buy sustainable packaging”. Having studied these outcomes, the author thinks that most participants are environmentally conscious and aware of the environmental issues that are currently occurring.

##### *4.1.1.2 Describe how your concerns about the environment will affect your decision to buy green personal care products?*

Participant 7 was motivated to buy green personal care products and said the following “I will have high intentions to buy green personal care products if they do not harm the environment”. Participants 1, 4,5 shared that they prefer to buy green personal care products if they do not harm the environment, participants 5 said: “ I am willing to buy products that do not harm the environment”. Participants 4 shared the following “It will increase my likelihood to buy it”. While most participants have high intentions to buy environmentally friendly products, participant 2 was not certain if they would buy green personal care products and said: “My intention might increase but not for sure”. Participant 3 expressed their willingness to buy greener products by saying “I still buy products that are not green for my skin but I will like to buy greener products”. Having studied these outcomes, the author thinks that environmental concerns have a positive effect on the intention to purchase green personal care products.

##### *4.1.1.3 Describe how your concerns about the environment will affect your attitude towards buying green personal care products?*

Participants 4,5 and 6 agreed that using green personal care products are better for the environment. Participant 2 shared the following “Environmental concerns amplify people's attitude toward green products” and participant 8 said, “I find using green personal care products more beneficial for the environment”. Participant 1 attitude towards green personal care products was conditional, the product has to be proven environmentally friendly she expressed by saying “If the

product is non-polluting I will have a more positive attitude". Participant 3 shared that attitude towards buying green personal care products is affected by environmental concerns but the main influencer is health concerns by saying "It has an effect on my attitude but not as much as my health". Having studied these outcomes, the author thinks that attitude towards buying green personal care products is highly affected by environmental concerns. Interviewees who express their concerns about the environment realized the benefits of using green personal care products.

#### 4.1.2 Health Consciousness:

##### *4.1.1.2.1 How do you describe your concerns about your health and how healthy the products you are using?*

Participants 3, 4 and 5 expressed their high concerns about their health, participant 3 said: "I am very concerned about my health". Participants 1 said, "I would say I have a moderate concern about my health".

Participants 2 and 6 also shared that their concern about their health is moderate. While participants had either high or moderate concerns, Participants 7 and 8 said that they do not have any concerns about their health. Having studied these outcomes, the author thinks that most participants shared some concerns about their health in general. Nevertheless, other participants' concern about their health is associated with having health issues.

##### *4.1.1.2.2. Describe how your health concerns affect your purchasing decision of green personal care products?*

Participants 1 and 5 expressed that their concerns about their health will have an effect on their decision to buy green personal care products. Interviewee 5 said "We will have children so we need to care about how green the products we are buying" and interviewee 1 shared "It has a huge effect because of the ingredients they use". Also, participant 6 shared her willingness to buy green personal care products by saying "I will always try to buy green personal care products when I can". Some participants were not sure of the effect of their health concerns on their purchasing decision, for instance, participant 2 said "I do not think it affects my intentions" and participant 4 said, "It might affect the intentions but not for sure". Participants 7 and 8 shared that they do not have any health concerns and these concerns will not have an effect on their purchasing decision, participant 7 said: "It has no effect on my intentions to buy green personal care products". participant 8 was willing to buy green personal care products only if she had health issues and she reported: "If I have health issues I will have high intentions to buy green personal care products". Having studied these outcomes, the author thinks that health concerns have an effect on the purchasing decision of green personal care products. Interviewees who expressed their

concerns about their health had higher willingness to buy green personal care products.

#### *4.1.1.2.3 Describe how your health concerns affect your attitude toward buying green personal care products?*

Most participants expressed that using green personal care products is more beneficial for their health. Participant 2 said, “ My attitude towards buying green personal care products will be positive even if I do not have health concerns”. Participants 5 and 6 shared that their attitude will be affected by their health concerns. Participant 1 said, “ It has a positive effect, It is more likely that the product is good for me and the environment”. Also, participant 4 shared the following “ It will affect my attitude towards green products, green is better to use”. Participants who did not have health concerns reported that their attitude toward green personal care products is not affected, for example, participant 7 said: “ It has no effect on my attitude towards green personal care products”. Having studied these outcomes, the author thinks that the more health concerns participants had a more positive effect it had on their attitude towards buying green personal care products.

### **4.1.3 Appearance Consciousness:**

#### *4.1.1.3.1 How do you describe your concerns about your appearance?*

Most participants shared concerns about their appearances. Participant 2 said, “ I like to look good to feel good”. Participants 3, 4, 5, and 6 shared their high concerns about their appearances. Participant 3 said “ I have high concerns about my appearance” and participant 5 also said that appearance is a very important aspect. Participants 7 and 8 have concerns about their appearance but their concerns are considered low. “. Having studied these outcomes, the author thinks that most participants give high importance to their looks and appearances.

#### *4.1.1.3.2. Describe how your concerns about your appearance will affect your decision to buy green personal care products?*

Participants' answers varied when they were asked about the effect of their appearance concerns on their purchasing intentions of green products. Participant 1 shared that the product's ingredients play a role in determining her purchasing intentions by saying “ I have high intentions to buy natural ingredients”. The effect of the product on skin and hair was the determinant of the purchasing intention of participant 8 “If the green personal care products will help my skin or hair more, I will have more intentions to buy it”. While participant 4 was not sure if appearances concerns will have an effect on his purchasing intentions, participants 6 said: “It will have a great effect on intentions to buy green personal care products”. Participant 2 shared that his purchasing decision is dependent on other factors by saying “My intentions are not



affected by my appearance it is highly dependent on price and availability". Having studied these outcomes, the author thinks that the effect of appearance concerns on the purchasing intentions of green personal care products is subjective to product specification or to other factors that may support the purchasing decision.

#### *4.1.1.3.3 Describe how your concerns about your appearance will affect your attitude toward buying green personal care products?*

Appearance concerns had an effect on some participant's attitudes. Participant 5 said "My appearance will influence my attitude toward green personal care products. If consumers only want green products they can influence producers", this answer suggested that consumers' preference toward green personal care products will eventually motivate more companies to produce green products. Participants 3,4, and 5 said that their concerns about their appearance will affect their attitudes, green products are perceived as more natural and thus does not harm the skin or hair. Participant 2 explained that the product's effectiveness in maintaining good results will help in shaping a better attitude towards buying green personal care products by saying " If the product has a good effect and it is green, I will definitely have a better attitude". Participants who had a low appearance concern reported that their attitude remains the same towards buying green personal care products, for example, participant 8 said " There is no effect of my appearance on my attitudes in this case". Having studied these outcomes, the author thinks that appearance motivated many participants to form a better attitude towards buying green personal care products. Many participants believed that using natural or non-chemical ingredients will improve their appearance and therefore their attitude towards buying green personal care products was more positive.

#### **4.1.4 Subjective Norms:**

##### *4.1.4.1 Describe how the people around you influence your decision of buying green personal care products?*

Opinions of friends and family had an impact on the purchasing intentions of green personal care products according to most participants. The following statements were shared: participant 7 said " Good recommendations about green personal care products will enhance the change of me buying it", participant 1 shared " I listen to people close to me and they motivate me to buy greener products". On the other hand participant, 2 found that his purchasing intentions is not affected by subjective norms and said: "My friend's opinion does not affect my intentions". Having studied these outcomes, the author thinks that the effect of subjective norms on purchasing intentions is supported by all participants except participant 2.



#### *4.1.4.2 Describe how the people around you will change your attitude toward buying green personal care products?*

The attitude towards green personal care products might get influences by subjective norms according to participants 1, 2, and 5 answers. Participant 2 said “ People around me might be able to affect my attitude regarding green personal care products” and participant 1 shared “ The attitude will change if the people recommended the green product”. Participant 3 found that people around her increase the awareness but they do not change the attitude towards buying green personal care products by saying “ I would not say they have an effect on my attitude but they definitely increase my awareness”. Participants 6 and 7 were sure that their attitude does not change with subjective norms, participant 6 said: “People influence does not have any effect on my attitude”. Having studied these outcomes, the author thinks that subjective norms do not directly affect the attitude according to many respondents. Increasing the awareness of the benefits of using green personal care products might eventually lead to better attitudes towards buying these products.

#### *4.1.5 Past Experience with Green Personal Care Products:*

##### *4.1.5.1 How do you describe green personal care products available in the market?*

Respondents were asked about how they experienced green personal care products in the market. Most respondents found that green personal care products scarce and not available in the supermarket or drugstores. Only participant 3 said, “ They are available in the market”. Participants 1, 2 and 6 said that green personal care products are overpriced. Participant 8 was not able to buy or consider green personal care products because they are produced in smaller sizes and they are not available in family size by saying “ They are expensive and not available in family size, they are not convenient for family consumption”. Having studied these outcomes, the author thinks that participants perceive green personal care available in the market as not available for everyday use.

##### *4.1.5.2 What are the products that you use as green or prefer to use as green?*

Facial creams and shampoo products were among the green personal care products that participants reported using. Participant 2 said, “ I always use a green shampoo with natural ingredients, it is better for my hair”. Participant 3 tries to use as many green facial products as possible because their ingredient is better for the skin. Participant 7 prefers to

use the products that her skin absorbs as green and she said: “ I want to use green facial creams, shampoos, and deodorant”. Having studied these outcomes, the author thinks that participants had a high preference to use green personal care products after experiencing their effects on their hair and skin.

#### 4.1.6 Perceived Behavioral Control:

##### *4.1.6.1 Describe how the availability/barriers of buying green personal care products affect your attitude toward buying them?*

Participant 1 believed that spending time and effort to find personal care products had a negative effect on her attitude by saying “ If it is not available in all stores then it is not as beneficial”. The rest of the participants found that their attitude does not change with the resources they have or effort they put, for instance, participant 2 said: “ It does not affect my attitude, green products are good and I know it is beneficial to buy them”. Participant 7 also shared the same outcome with other participants by saying “ Availability or barriers do not change my idea about buying green personal care products”. Having studied these outcomes, the author thinks that participants’ attitudes were not affected by their ability to get green personal care products.

##### *4.1.6.2 Describe how the availability/barriers of buying green personal care products affect your intention to buy them?*

Most participants indicated that they want to limit the time and effort they put into buying products. Participant 3 expressed her willingness to search and buy green personal care products in shops or online. Participant 5 said, “ Availability of green personal care products will definitely affect my purchasing intentions, I do not want to spend time searching for a green personal care product”. For participants who have relatively low perceived behavioral control such as participant 6, barriers lowered the purchasing intentions of green personal care products. Participant 2 said that having green personal care products easily accessible will increase the purchasing intentions of these products. Having studied these outcomes, the author thinks that most participants believed that they do not control the availability of barriers of buying green personal care products and the less the barriers the higher the intentions to buy the studied products.

#### 4.1.7 Price Consciousness:

##### *4.1.7.1 Describe how sensitive you are toward the prices of green personal care products?*

Most participants reported that they are sensitive to the prices of green personal care products. participant 1 said, “ I am very sensitive to prices, I cannot pay much”. Also, participant 8 reported high price sensitivity because of having family usage. On the other hand, participants 2, 3, 5, and 6 shared their willingness to pay an extra amount of money for green personal care products, for example, participant 6 said: “ I am willing to pay extra for green personal care products”. Having studied these outcomes, the author thinks that participants are sensitive to the prices of green personal care products.

#### *4.1.7.2 Describe how the price will affect your attitude toward buying green personal care products?*

Most participants reported that their attitude is not affected by the price of green personal care products, for example, participant 8 said “The price of green personal care products does not change my attitude” and participant 5 also said, “My attitude does not change with price”. The attitude towards buying green personal care products changed with the prices of these products according to participant 1 as she said: “If the prices are high it will change how beneficial I find green products”. Having studied these outcomes, the author thinks that prices had a limited role in affecting participants' attitudes towards green personal care products.

#### *4.1.7.3 Describe how the price will affect your decision to buy green personal care products?*

The effect of price on the purchasing intentions of green personal care products ranged between moderate and high. Participant 4 said “ If the green product is expensive it will negatively affect my intentions to buy it” and participant 6 also said, “ If the green personal care products are expensive, intention to buy it is lower”. Some participants eliminated their purchasing intention due to price, participant 7 said “ I will withdraw from buying highly-priced green personal care products” and participant 2 added, “ Prices will determine my intentions to buy green personal care products”. Having studied these outcomes, the author thinks that most participants have a negative price sensitivity, almost all participants reported that their intention to buy green personal care products is lower when the prices of these products are higher.

### **4.1.8 Green Brand Image:**

#### *4.1.8.1 Describe how the brand's concern about the environment will affect your decision to buy it?*

Participants 2 said, “ I will purchase a brand that cares about the environment”. This opinion regarding the green brand image is also shared by participant 7 who said: “Brand’s image has a high effect on my

decision to buy it". Brand's promoting to their concerns about the environment was what determined the purchasing decision of participant 3 by saying " I will definitely buy a Brand that advertises for their environmental concerns". Participant 1 shared " Brands concerns about packaging and ingredients are very important" and according to participant 8 how the brand represents itself determines the decision to buy it. Having studied these outcomes, the author thinks that the green brand image affected the purchasing intentions of participants. Participants were more willing to purchase brands that present themselves as environmentally friendly through their ingredients, packaging, and advertising.

#### *4.1.8.2 Describe how the brand's concern about the environment will affect your attitude toward buying the brand's products?*

Participants shared their opinion about the effect of green brand image on their attitude towards green personal care products. Participant 2 said " My attitude is always positive about green products" and participant 5 also said, "My attitude is not affected by the brand image, I know green products are good". Participant 4 indicated that his attitude does not change with the green brand image, this statement agrees with the previous two participants. Participant 1 stated that the green brand's image will affect her attitude to be more positive towards green personal care products, participant 7 also shared a similar opinion by saying "It might affect how I see green personal care products". However, both participants 7 and 8 were not certain that the brand's image has a positive effect on their attitude.. Having studied these outcomes, the author thinks that there is not enough evidence that green brands have an effect on attitude.

#### *4.1.9 Attitude toward Buying Green Personal Care Products:*

##### *4.1.9.1 Describe what buying green personal care products would be to you?*

Most participants shared a positive attitude toward buying green personal care products. participant 1 said " Ideally beneficial for my health and the planet" and participant 6 stated, " I am supporting a healthier and sustainable world, positive attitude". Buying green personal care products is useful but still, it is "a habit to build" according to participant 8. While most participants had a positive attitude towards buying green personal care products, participant 7 found it not useful and said: "I do not think it is useful to buy green personal care products". Having studied these outcomes, the author thinks that the attitude toward buying green personal care products is generally positive.

#### *4.1.9.2 From what we discussed earlier, which factors will affect your attitudes toward buying green products but will not affect your intention to buy the green product?*

According to participants, the main factors that affect their attitudes toward buying green personal care products are environmental concerns, health concerns, and appearance concerns. Participant 1 indicated that the factors that influence her attitude also influence her intentions by saying “Most factors that affect my attitude affect my intentions, they are connected to me”. Additional to the previously mentioned factors participants 3 and 5 said that green brand image affected their attitude towards buying green personal care products. Having studied these outcomes, the author thinks that environmental concerns, health concerns, and appearance concerns are the main factors that influence the attitude toward buying green personal care products

#### *4.1.10 Buying Intentions of Green Personal Care Products:*

##### *4.1.10.1 How do you describe your likelihood or intentions to buy green personal care products?*

High intentions to buy green personal care products were reported by various participants. Participant 5 said, “ I have a high likelihood to buy green personal care products”. High intentions were mostly determined by different factors, for example, participant 8 said: “I have high intentions but they are dependent on price and availability”. The brand was determined by the purchasing intentions according to participant 7. While natural ingredients were essential for participant 6 as she said: “If the ingredients are natural my likelihood to buy the green product is high”. Having studied these outcomes, the author thinks that participants’ positive attitude toward green personal care products is translated into high intentions to buy these products.

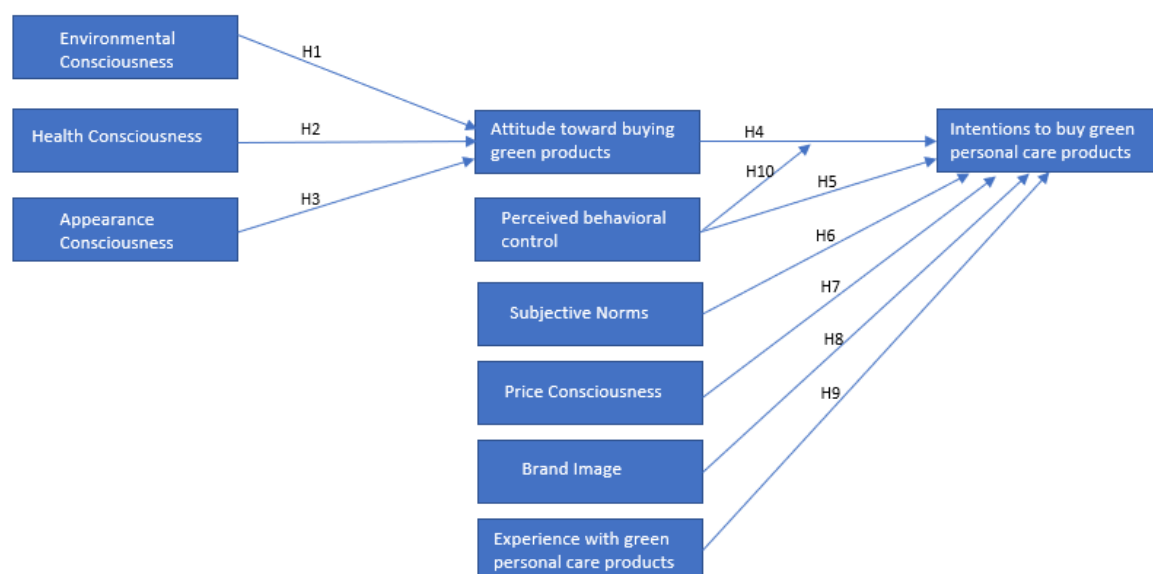
##### *4.1.10.2 From what we discussed earlier, which factors will affect your intention to buy the green product but will not change your attitude toward buying green products?*

Participant 1 said, “If the brand is not presented well it will affect my attitude but not my intentions”. Availability and price were suggested by many participants, for example, participant 2 found these two factors as the main influencer of his purchasing intentions. While Participant 3 added, “Price, availability, brand image and people around me will affect my intentions”. Participant 7 said, “ The opinion of people around me has the most effect on my intentions”. Having studied these outcomes, the author thinks that Perceived behavior control, subjective norms, price sensitivity, and green brand image are the main factors that influence the purchasing intentions of green personal care products.

#### 4.1.4 Improved Conceptual Model and Hypothesis Overview:

The results of the qualitative research helped to shape the initial conceptual model (Figure 4) to match the Dutch consumers' preferences. The interview outcomes suggested that environmental consciousness, health consciousness, and appearance consciousness have an effect on the attitude toward buying green personal care products while their effect on purchasing intentions was not supported. Past experience with green personal care products influenced the purchasing intention of these products. Additionally, The main factors that influence the purchasing intentions of green personal care products are reported to be the attitude towards buying green personal care products, perceived behavioral control, subjective norms, price consciousness, and green brand image. The results also suggested that a positive relationship between attitude and intentions might be affected by consumers' perceived behavior control. Consumers were willing to translate their positive attitude to purchasing intentions when the barriers (availability in shops, spending time on searching for the products) to buy green personal care products were less. Therefore, the following improved conceptual model is suggested (Figure 5).

The relationship in the improved research model will be further tested using quantitative research to determine to what extent the mentioned phenomena occur in the population.



*Figure 5 - Improved Conceptual Model*

Overview of the proposed Improved Hypotheses:

Only the hypotheses that were supported by the outcome of the qualitative research were adapted.

*Table 4 - Improved Hypotheses*

H1: Environmental Consciousness will have a positive effect on the attitude toward buying green personal care products.
H2: Health Consciousness will have a positive effect on the attitude toward buying green personal care products.
H3: Appearance Consciousness will have a positive effect on the attitude toward buying green personal care products.
H4: Consumers' attitude towards green personal care products will have a positive effect on the purchasing intentions of the green personal care products
H5: Consumers' perceived behavioral control will have a positive effect on the intention of buying green personal care products.
H6: Subjective Norms will have a positive effect on the intention to buy green personal care products.
H7: Price Consciousness will have a negative effect on the purchasing intentions of green personal care products.
H8: Green Brand Image will have a positive effect on the purchasing intentions of green personal care products.
H9: Consumers' past experiences with green personal green products will have a positive effect on the intention to buy green personal care products.
H10: The greater consumers' perceived behavioral control is, the stronger the positive relationship between attitudes and intentions to buy green personal care products.

## 4.2 Quantitative Outcome:

Qualitative research was conducted using an online survey. The survey was published on social media platforms ( Facebook and Instagram), on student platforms such as Survey Swap, and shared via text messages with the researcher's network. The data was collected in the period between the 1<sup>st</sup> of December 2019 until 15<sup>th</sup> of March 2020. The survey



has collected 270 responses, these responses were gathered from people who live in the Netherlands. To ensure that only residents in the Netherlands filled the survey, the researcher asked before the survey starts “do you live in the Netherlands” and only answers with yes have been counted.

To ensure the reliability of the dataset, initial screening was performed. In this screening, 51 responses were deleted because of missing responses.

After the screening process, the author had 219 responses to analyze. The analysis started with demographics and then followed by a reliability test to ensure the consistency of the data. Finally, linear regression analysis was performed to assess the relationships in the studied conceptual model. The analysis was done using SPSS.

#### 4.2.1 Demographics:

A greater percentage of females responded to the survey, 64.22% (140) of the respondents were female and 34.78% (79) were male. The age of the 219 respondents ranged between 15 and 64, the wide range of respondents age helped increase the reliability of the data. The highest age frequencies were 22 years with a frequency of 39 (17.8%) and 24 years with a frequency of 34 (15.5%).

Regarding education, 35.16% of the respondents have a HBO level education followed by 32.42% of respondents with a Master or higher educational level, 24.66% have a university education and finally, the minority of the sample 7.76% have MBO education.

The highest percentage of the respondents were students 55.71% (122 respondents) followed by full-time employees 26.48% (58 respondents) and part-time employees 13.7% (30 respondents), lastly, only 4.11% of the respondents were unemployed.

Respondents were asked about their relationship status, 50.23% of the respondents were in a relationship without children followed by single, in relationship with children and a single parent with 36.99%, 10.1%, and 2.74% respectively.

Respondents indicated which brands available in the market, they consider as green. The Body Shop had the highest percentage, 25.9% of the respondents identified The Body Shop as a green brand. Followed by Lush and Dr. Organic 24.9% and 24.2% respectively.

Additionally, respondents reported that they prefer to use green shampoo, green body care products and green facial care products, while only 16.9% of the respondents do not prefer to use green personal care products.

For the full list of the demographic results please see Appendix D.



#### 4.2.2 Internal Reliability Test Results:

In Accordance to paragraph 3.4.2.1 of the methodology, internal reliability tests have been performed to assess the internal consistency of the following multi-item scales: environmental consciousness, health consciousness, appearance consciousness, social norms, perceived behavioral control, price consciousness, green brand image, attitude towards buying green personal care products, and intentions to buy green personal care products. The results of the internal reliability are summarized in the following table:

*Table 5 - Internal Reliability Test Results*

<b>Scale</b>	<b>Number of items</b>	<b>Cronbach's Alpha</b>
<b>Environmental Consciousness</b>	4	$\alpha = 0.91$
<b>Health Consciousness</b>	4	$\alpha = 0.79$
<b>Appearance Consciousness</b>	3	$\alpha = 0.79$
<b>Subjective Norms</b>	4	$\alpha = 0.87$
<b>Perceived Behavioral Control</b>	3	$\alpha = 0.79$
<b>Price Consciousness</b>	5	$\alpha = 0.93$
<b>Green Brand Image</b>	4	$\alpha = 0.9$
<b>Attitudes</b>	4	$\alpha = 0.89$
<b>Purchasing Intentions</b>	3	$\alpha = 0.92$

The Cronbach's Alpha for each scale is higher than 0.7 which is according to Mazzocchi (2008) is acceptable results. The overall Cronbach's alpha is 0.81 which means that the model has good internal consistency.

#### 4.2.2 Factor Analysis:

The research model and the items have been taken from academic literature, this means that researchers have selected the maximum amount of variance explained utilizing a smaller number of factors. However, to ensure that the improved conceptual model is unidimensional, explanatory factor analysis was conducted.

The analysis begins with Bartlett's Test of Sphericity which tests to see whether there are significant correlations between variables. Since  $p=0.000$ , there are no significant correlations between variations and the first assumption of factor analysis is verified. Also, the Kaiser- Meyer- Olkin (KMO) test of Sampling Adequacy is conducted. The test yielded a result of 0.83 which means that there are enough inter-correlations between variables. With both tests verified, factor analysis is concluded to be appropriate.

Only factors with eigenvalues over 1 are selected as the goal is to have each selected factor explain more variance than each variable. By the use of this method, the researcher found that the eigenvalue of the first component (3.78) is larger than the eigenvalue of the second component (0.96) which suggests that the scale items are unidimensional (Appendix E).

#### 4.2.2 Regression Analysis:

Regression analysis is performed to explore the relationships between the predictor variables and the criterion variables. The analysis will help determine if the variance in the dependent variable is predicted by the independent variables and it will determine how significant the influence of the independent variables is on the independent variable.

##### 4.2.2.1 Variables coding for linear regression:

Before starting the linear regressions, the levels of some of the variables used for this study need to be recorded. For dummies, the rules of k-1 (where k is the number of levels) have been used, whereas continuous variables will use their rating or average scores. The following table summarizes the way variables have been coded:

*Table 6 - Variables Coding*

Variable	Coding Type	Definition
<b>Gender</b>	Binary	0 = Male; 1 = Female
<b>Educational level</b>	Binary	Master=1; Else=0 MBO=1; Else=0 HBO=1; Else=0 University=1; Else=0
<b>Relationship Status</b>	Binary	Single=1; Else=0 In Relationship=1; Else=0 In Relationship with children=1; Else=0 Single Parent=1; Else=0
<b>Age</b>	Continuous	Rating from 0 to 100
<b>Environmental consciousness (EC)</b>	Continuous	Value from 1 to 7
<b>Health Consciousness (HC)</b>	Continuous	Value from 1 to 7

<b>Appearance consciousness (AC)</b>	Continuous	Value from 1 to 7
<b>Subjective Norms (SN)</b>	Continuous	Value from 1 to 7
<b>Past Experience with Green Personal Care Products (PE)</b>	Binary	Used green personal care products=1; No experience=0
<b>Perceived Behavioral Control (PBC)</b>	Continuous	Value from 1 to 7
<b>Price Consciousness (PC)</b>	Continuous	Value from 1 to 7
<b>Green Brand Image</b>	Continuous	Value from 1 to 7
<b>Attitude toward buying Green Personal Care Products (Attitude)</b>	Continuous	Value from 1 to 7
<b>Purchasing Intentions of Green Personal Care Products (Intent)</b>	Continuous	Value from 1 to 7

#### 4.2.2.2 Regression Analysis Outcome:

First, the effect of environmental consciousness, health consciousness, and appearance consciousness on consumers' attitude to buying green personal care products were tested (H1-H3), Multiple regression analysis was performed.

The model summary suggested that 34.5% of the variance is explained by the independent variables used as inputs for this analysis ( $R^2 = 0.345$ ). Moreover, the ANOVA test showed that the model is overall significant, with  $F = 9.035$  and  $p < 0.000$  (Appendix F). The table below summarizes the unstandardized coefficients and significance levels of those independent variables:

*Table 7 - Regression Analysis (1)*

Independent Variables		Unstandardized Coefficients		t	Sig.
		B	Std. Error		
	EC	.275	.076	3.593	.000
	AC	.187	.074	2.544	.012
	HC	.031	.080	.389	.698

Gender	.007	.162	.042	.967
Age	.001	.015	-.031	.975
MasterEdu	.406	.179	2.264	.025
MBOEdu	.565	.305	1.851	.066
HBOEdu	.296	.193	1.534	.127
FullTime	-.640	.208	-3.078	.002
PartTime	.043	.227	.188	.851
Unemploy	.015	.398	.039	.969
SingleParent	- 2.83 1	.488	-5.799	.000
InRelation	.018	.159	.113	.910
InRelationKids	-.102	.325	-.312	.755

The dependent variable is Attitude

It is concluded from the table above that Appearance consciousness and environmental consciousness have a significant positive effect (5% significance level) on the attitude toward buying green personal care products. An increase of 1 unit of environmental consciousness will increase the attitude towards buying green personal care products with 0.275 points. Regarding education, master education has a significant positive effect on the attitude towards buying green personal care products compared to university education. Additionally, working full time had a significant negative effect ( $B = -.640$ ) on the attitude towards buying green personal care products compared to being a student. Additionally, being a single parent has a significant negative effect ( $B = -2.831$ ) on the attitude towards buying green personal care products compared to being single.

Gender and age did not seem to have a significant effect (5% significance level) on the attitude towards buying green personal care products.

Hence, H1 and H3 were supported while H2 was not supported by the analysis.

Secondly, multiple regression analysis was conducted to test the influence of attitude towards buying green personal care products, perceived behavioral control, subjective norms, past experience with green personal care products, price consciousness, and green brand image on the intentions to buy green personal care products (H4-H9).

The model summary suggested that 41.2% of the variance is explained by the independent variables used as inputs for this analysis ( $R^2 = 0.412$ ). Moreover, the ANOVA test showed that the model is overall significant, with  $F = 8.860$  and  $p < 0.000$  (Appendix F).

The table below summarizes the unstandardized coefficients and significance levels of those independent variables:

*Table 8 - Regression Analysis (2)*

Independent Variables		Unstandardized Coefficients		t	Sig.
		B	Std. Error		
	(Constant)	-.416	.562	-.739	.461
	PE	.673	.160	4.198	.000
	SN	.132	.071	1.874	.062
	PC	.062	.060	1.039	.300
	GBI	.292	.074	3.938	.000
	PBC	.164	.095	1.728	.085
	Attitude	.177	.069	2.579	.011
	Age	.015	.016	.943	.347
	Gender	.257	.163	1.575	.117
	MasterEdu	.073	.185	.394	.694
	MBOEdu	-.601	.308	-1.953	.052
	HBOEdu	-.208	.196	-1.058	.292
	FullTime	.417	.215	1.944	.053
	PartTime	.189	.227	.832	.406
	Unemploy	-.144	.397	-.363	.717
	SingleParent	.830	.526	1.576	.117
	InRelation	.057	.159	.356	.722
	InRelationKids	-.108	.332	-.327	.744

The dependent variable is Intent

It is concluded from the multiple regression analysis results that attitudes toward buying green personal care products, past experience with green personal care products, and green brand image have a significant positive effect (5% significance level) on the intention to buy green personal care products. Price consciousness in addition to subjective norms and perceived behavioral control did not have a significant effect on the intention to buy green personal care products.

Age and gender did not seem to have a significant effect on the intention to buy green personal care products. Also, education level, relationship status, and employment status did not have a significant effect (significance level 5%) on the intention to buy green personal care products.

Thus, H4, H8, and H9 were supported while H5, H6, and H7 were not supported.

Lastly, moderation analysis was conducted to test if the perceived behavioral control mediates the relationship between attitudes and intentions to buy green personal care products.

Before conducting the regression analysis the variables Attitude and PBC were standardized to produce variables with a mean of zero to reduce the problem of multicollinearity. Then the 2 variables were multiplied to get the interaction effect between these 2 variables.

The first step is running a regression analysis for attitude and PBC as independent variables.

The results of this analysis show that 14.9% of the variance is explained by the independent variables used as inputs for this analysis ( $R^2 = 0.149$ ). Moreover, the ANOVA test showed that the model is overall significant, with  $F = 18.904$  and  $p < 0.000$  (Appendix G). The table below summarizes the coefficients of the conducted analysis:

*Table 9 - Moderation Test (1)*

Independent Variables		Unstandardized Coefficients		t	Sig.
		B	Std. Error		
<b>Model 1</b>	(Constant)	1.470	.385	3.820	.000
	Attitude	.222	.069	3.226	.001
	PBC	.399	.095	4.180	.000

The dependent variable is Intent

Both attitude and PBC have a positive significant effect on the intention to buy green personal care products according to the above analysis.

To further test the moderation effect, a regression analysis is performed with attitude, PBC, and moderator (the interaction effect between attitude and PBC) as independent variables. The percentage of the variance explained by the independent variables improved from 14.9% to 16.8%. The ANOVA test of the model showed that the model is overall significant, with  $F =$

14.504 and  $p < 0.000$  (Appendix G). The table below summarizes the coefficients of the moderation analysis:

*Table 10 - Moderation Test (2)*

Independent Variables		Unstandardized Coefficients		t	Sig.
		B	Std. Error		
<b>Model 2</b>	(Constant)	1.172	.404	2.901	.004
	Attitude	.235	.068	3.434	.001
	PBC	.458	.098	4.665	.000

	Modertaor	.142	.064	2.237	.026
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The dependent variable is Intent

The results shown in the table suggest that attitude has a positive significant effect on the intention to buy green personal care products, meaning that one unit change in attitude will have an impact of 0.235 on the purchasing intentions of green personal care products. Perceived behavioral control also found to have a positive effect on the intention to buy green personal care products ( $p < 0.000$ ). The interaction effect between attitude and PBC is significant which indicates that the relationship between attitudes and intentions to buy green personal care products is moderated by PBC. Thus, H10 was supported.

According to the results showcased above, it is apparent that environmental and appearance concerns found to be important in shaping consumers' attitudes toward buying green personal care products while health concerns were less important. Moreover, price consciousness did not appear to influence the intention to buy green personal care products, not subjective norms. While past experience with green personal care products, green brand image, and positive attitudes was the determinant of consumers' intentions to buy green personal care products.

Additionally, perceived behavioral control was found to moderate the relationship between attitude and intentions to buy green personal care products.

## Chapter 5: Conclusions and Recommendations:

This chapter will showcase the results of the research conducted in this thesis. The outcome will be enlisted as follows:

First, the literature review outcome will be shared and then the qualitative research outcome. Both outcomes will be compared and the conclusion will be made.

Secondly, The outcome of qualitative research will be compared with the outcome of quantitative research. Afterward, conclusions will be made.

Lastly, recommendations for brand managers will be offered. Further research needed and limitations will be discussed at the end of this chapter.

### 5.1 Literature Review Outcome:

The main purpose of this thesis is to understand consumers' consumption behavior regarding green personal care products. Therefore, the theory of planned behavior (TPB) was used as a base to grasp a better understanding of consumers' behavior regarding green products. The literature study investigated the main factors used in the TPB and added some factors that might be relevant in determining consumers' intention to buy green personal care products.

#### 5.1.1 Environmental Consciousness:

Environmental concerns are one of the factors that determine consumers' values according to the TPB. Literature showed that consumers' concerns about the environment can affect the attitude toward buying green products. Other studies also reported that there is a significant effect of environmental consciousness on the intention to buy green products. While organic food was the most studied topic, research also found that there is a significant effect of environmental concerns on the attitudes towards buying organic personal care products.

#### 5.1.2 Health Consciousness:

Many studies reported that consumers with concerns about their health have a positive effect on the intention to buy green products. Health consciousness also found to have a positive effect on the attitude towards buying green products. however, when studying the effect of health consciousness on the attitude towards buying organic personal care products, researchers found that health consciousness does not have a significant effect on the attitude towards buying organic personal care products.

#### 5.1.3 Appearance Consciousness:

Appearance is one of the factors that shape consumers' attitudes toward buying green personal care products. From the literature study, it was



concluded that appearance consciousness played an important role in positively changing the attitude towards buying green products.

#### 5.1.4 Subjective Norms:

The literature showed that social pressure to consume more green products have a positive effect on the intention to buy green products. Also, researchers found that subjective norms have a positive effect on the attitude towards buying green products.

#### 5.1.5 Past Experience with green personal care products:

Previous research reported that past experience with green products has a positive effect on the intention to buy these products. Past experience found to have a significant effect on the intention to buy organic personal care products.

#### 5.1.6 Perceived Behavioral Control:

The research found that consumers who believed that they have the resources to buy green products reported high intentions to buy these products. Also, perceived behavioral control found to have a positive effect on the attitude toward buying green products.

#### 5.1.7 Price Consciousness:

Many studies reported that high price sensitivity has a negative effect on the attitude toward buying green products. Besides, higher prices of green products found to have a negative effect on the purchasing intentions of these products.

#### 5.1.8 Green Brand Image:

Green brand image has a positive effect on the attitude towards buying green products according to previous researches. Intentions to buy green products were found to be affected by green brand image too.

#### 5.1.9 Attitude towards Buying Green Personal Care Products:

Studies found that a positive attitude towards buying green products can have a positive effect on the intention to buy these products. However, in many studies, a gap between consumers' attitudes and behavior was reported.

#### 5.1.10 Purchasing Intentions of Green Personal Care Products:

The main factors that influence consumers' intentions according to the TPB are consumers' values, subjective norms, perceived behavioral control, past experience with the product, and the attitude towards buying the product.

### 5.2 Qualitative Research Outcome:

The qualitative study was conducted using semi-structured interviews. The answers given in these 8 interviews were collected and analyzed.

The following outcome was reached regarding each of the studied variables:

#### 5.2.1 Environmental Consciousness:

Participants reported high concerns about the environment, most of them used the words (Highly concerns, very concerned) in their answers, their concerns have an effect on their attitude towards buying green personal care products. These results supported H1a. Participants also reported that they have intentions to buy green personal care products. However, some participants were not certain if their concern about the environment will be translated into purchasing intentions, for them, appearances and convenience were more determining factors of their purchasing intention rather than the environment. Thus, there was not enough evidence to support H1b. Most participants indicated that their purchasing intentions are highly dependent on the availability and the price of the products.

#### 5.2.2 Health Consciousness:

Most participants had concerns about their health, however, their concern about health was less than their concerns about the environment. Interviewees' indicated that they consider green personal care products as a healthier option and it will impact their attitude towards buying green personal care products. These answers support the H2a hypothesis. Despite their positive attitude, their purchasing intentions were fluctuating between positive and negative. Some participants considered buying green personal care products only if they had health issues, others did not see an effect on their intentions. This means that H2b is not fully supported and the relationship between health concerns and purchasing intentions of green personal care products could be determined by other factors.

#### 5.2.3 Appearance Consciousness:

The appearance was important to the majority of the interviewees. Participants who are highly conscious about their appearance reported that their attitude toward green personal care products is more positive. Participants reported that natural and safe ingredients were the key to better skin and hair. Thus, H3a was supported. Similar to the environment and health consciousness the effect of appearance on the purchasing intentions was subjective to price and availability. Most participants reported that their appearance will have a positive effect on their purchasing intentions but their purchasing decision will be determined by price and availability.

#### 5.2.4 Subjective Norms:

Subjective Norms had a positive influence on the buying intentions of green personal care products. According to the interviewees, people around them can change their consumption behavior toward buying more

green personal care products. This result supports the H4B hypothesis. Many participants reported that their attitude does not change with the opinion of the people around them but the recommendation of green products might increase awareness toward buying greener products. Thus, there was not enough evidence to support H4a.

#### 5.2.5 Past Experience with green personal care products:

Customer past experience with green personal care products is believed to affect their decision to buy the product again. Some interviewees did not have any experience with the studied products but they indicated that if the green product “does its job” they will consider buying it again.

#### 5.2.6 Perceived Behavioral Control:

Almost all participants reported that green personal care products are not available in the market. For many availabilities played a crucial role in determining the purchasing intentions of green personal care products. Interviewees were certain that their attitudes do not change if the products are available or not, for them green personal care products are beneficial to use. However, the translation of their attitude to buying intentions was severely affected by availability. When green personal care products are available, interviewees had high intentions to buy them. Many interviewees had a low perceived behavioral control, some indicated that they might try to search for green personal care products online but they did not prefer to spend time searching. Thus, it is concluded that the greater the perceived behavioral control, the greater the translation of the positive attitude towards buying green products to a purchasing intention.

#### 5.2.7 Price Consciousness:

Interviewees expressed their positive intentions to buy green personal care products but these intentions were constrained by the cost of these products. Most of the participants were price-conscious, some were willing to pay extra for green personal care products and others found green personal care products overpriced. However, it is clear that price consciousness plays a significant role when determining the purchasing intentions, this results supported H7b. Similar to availability, participants’ attitudes toward green personal care products remained positive.

#### 5.2.8 Green Brand Image:

When participants were asked at the beginning of the interview about which personal care brand in the market they consider green, their answer was mostly determined by the brand’s effort to be

environmentally friendly, either through sustainable packaging or through the ingredients they use in their products. Participants were more willing to buy the brand that shows its concern about the environment, thus, their answers supported the H8b hypothesis. Interviewees suggested that brand image increased their awareness toward environmental issues and thus their attitude towards buying greener products could have changed but there was no further evidence to support H8a.

#### 5.2.9 Attitude towards Buying Green Personal Care Products:

All participants have a positive attitude towards buying green products in general and green personal care products in specific. The words beneficial and good were repeating in multiple answers.

All interviewees reported that environmental, health and appearance consciousness was the main influencer of their attitude towards buying green personal care products.

#### 5.2.10 Purchasing Intentions of Green Personal Care Products:

Participants reported high intentions to buy green personal care products. Their positive attitude towards buying green personal care products encouraged them to consider buying the products. However, all answers regarding the likelihood or the intentions to buy the studied products were constrained by availability and price. Thus, The availability of green personal care products can enhance the chances that consumers' attitude can have a positive effect on their consumption behavior. Most of the participants have budget constraints, for instance, respondents with children, student and unemployed respondents, prices played a significant role in determining if these participants will buy the product or not.

According to interviewees' answers, availability, price, brand's image, and subjective norms were the main influencers of their buying decision of green personal care products.

### 5.3 Comparison between Literature and Interviews Outcome:

Each of the hypotheses was tested, interviewees offered insight on how their behavior is changed with consideration to different factors. Hypothesis H1a, H2a, H3a were supported as the main possible influencers of the attitude towards buying green personal care products. These results were in alignment with customers' values in the TPB. Therefore, these hypotheses were adapted.

Hypotheses H1b, H2b and H3b were not supported as the main influencer of the purchasing decision. As the outcome of the interviewees

did not offer enough evidence to support these hypotheses. These results contradicted the literature outcome which found a positive effect on environmental consciousness, health consciousness on the intention to buy green products. However, the main topic of most of the previous literature was organic food and a difference in responses was reported when studying green personal care products.

Almost all participants reported that they have a positive attitude towards buying green personal care products. However, the availability and the price of these products affected the translation of their positive attitude to purchasing intentions, suggesting the occurrence of a gap between individuals' attitudes and intentions. Therefore, a positive relationship between attitudes and intentions to buy green personal care products may be moderated perceived behavioral controls. Thus, the following hypothesis was proposed at the end of paragraph 4.1.4:

H 10: The greater consumers' perceived behavioral control is, the stronger the positive relationship between attitudes and intentions to buy green personal care products.

Moreover, When participants were asked solely about their intentions, their answers were similar. The intentions to buy green personal care products were determined by factors such as price, availability, brand image, and subjective norms. This was also reported when they were asked which factors determined their purchasing intentions and not their attitudes. Accordingly, H4b, H5b, H6a, H6b, H7b, and H8b were supported by the conducted qualitative research. These results do not provide any evidence of a mediation effect of attitudes and other factors, thus, H9 is rejected.

The results of the qualitative research were in alignment with the TPB model and the research conducted by Yeon Kim and Chung (2011) regarding consumers' intentions to buy organic personal care products.

The following table will summarize the results of the qualitative research:

*Table 11 - Qualitative Research Results Summary*

H1a: Environmental Consciousness will have a positive effect on the attitude toward buying green personal care products.	Accepted
H1b: Environmental Consciousness will have a positive effect on the intention to buy green personal care products.	Rejected
H2a: Health Consciousness will have a positive effect on the attitude toward buying green personal care products.	Accepted
H2b: Health Consciousness will have a positive effect on the purchasing intention of green personal care products.	Rejected

H3a: Appearance Consciousness will have a positive effect on the attitude toward buying green personal care products.	Accepted
H3b: Appearance Consciousness will have a positive effect on the intention to buy green personal care products.	Rejected
H4a: Subjective Norms will have a positive effect on the attitudes toward buying green personal care products.	Rejected
H4b: Subjective Norms will have a positive effect on the intention to buy green personal care products.	Accepted
H5a: Consumers' past experience with green personal care products will have a positive effect on the attitude toward buying green personal care products.	Rejected
H5b: Consumers' past experiences with green personal green products will have a positive effect on the intention to buy green personal care products.	Accepted
H6a: Consumers' perceived behavioral control will have a positive effect on the attitude towards buying green personal care products.	Accepted
H6b: Consumers' perceived behavioral control will have a positive effect on the intention of buying green personal care products.	Accepted
H7a: Price Consciousness will have a negative effect on the attitude toward buying green personal care products.	Rejected
H7b: Price Consciousness will have a negative effect on the purchasing intentions of green personal care products.	Accepted
H8a: Green Brand Image will have a positive effect on the attitude toward buying green personal care products.	Rejected
H8b: Green Brand Image will have a positive effect on the purchasing intentions of green personal care products.	Accepted
H9: The attitude toward buying green personal care products mediate the relationship between the independent variables and the purchasing intention of green personal care products.	Rejected

## 5.4 Quantitative Research Outcome:

The qualitative research was conducted according to the results of the qualitative research. After analyzing the outcome of the interview an improved conceptual model and hypotheses were concluded. The quantitative research aimed to investigate to what extent the relationships concluded occur in the population. The quantitative research was done using an online survey.

The qualitative research was threefold. First, the effect on consumers' values (EC, HC, and AC) on the attitude towards buying green personal care products were tested. The outcome of the regression analysis showed that the effect of environmental consciousness and appearance consciousness on the attitude towards buying green personal care products was significant. However, health consciousness did not have a significant effect on the attitude towards buying green personal care products. Therefore, health concerns are less important to form a positive attitude toward buying green personal care products. These results provided a different outcome than the consumption behavior of organic food where health consciousness was the most important factor in predicting consumers' attitudes.

The second regression model was performed to test all the TPB predictors in addition to green brand image and price consciousness on the intentions to buy green personal care products. The outcome showed that a positive attitude towards buying green personal care products will have a significant positive effect on the intention to buy these products. Thus, it is important to create a positive attitude toward buying green personal care products to increase consumers' intentions to buy these products.

Moreover, past experience with green personal care products had a positive significant effect on purchasing intentions. This indicated that consumers who are already using green personal care products are more likely to buy these products again to continue their green consumption behavior. Additional to past experience, the green brand image had a significant positive effect on the intention to buy green personal care products. This means that consumers who prefer to consume more green products are highly affected by the brand's efforts to be environmentally friendly. Brands that present themselves as green and environmentally conscious are more likely to increase consumers' intentions to buy their products.

However, subjective norms were not found to have a significant effect on the intention to buy green personal care products. It appears that social influence or judgment did not have a role in increasing the purchasing intentions of green personal care products. Also, perceived behavioral control did not have a significant effect on the intention to buy green



personal care products. Perceived behavioral control was investigated further because it was believed to moderate the relationship between attitudes and intentions to buy green personal care products.

Also, price consciousness did not have a significant effect on the intention to buy green personal care products. This indicates that consumers who have green consumption behavior are willing to pay for green personal care products. The prices of the studied products did not influence the decision to buy it.

Finally, the third regression model investigated the moderation effect on perceived behavioral control on the relationship between attitude toward buying green personal care products and the intention to buy these products. It was concluded that the greater perceived behavioral control consumers have the greater the translation of positive attitude to purchasing intentions is. When consumers have all the resources to find green personal care products, either buying them online or having them available in stores, the more chances that they will have high intentions to buy them.

The following table summarizes the quantitative research outcome:

*Table 12 - Quantitative Research Results Summary*

H1: Environmental Consciousness will have a positive effect on the attitude toward buying green personal care products.	Accepted
H2: Health Consciousness will have a positive effect on the attitude toward buying green personal care products.	Rejected
H3: Appearance Consciousness will have a positive effect on the attitude toward buying green personal care products.	Accepted
H4: Consumers' attitude towards green personal care products will have a positive effect on the purchasing intentions of the green personal care products	Accepted
H5: Consumers' perceived behavioral control will have a positive effect on the intention of buying green personal care products.	Rejected
H6: Subjective Norms will have a positive effect on the intention to buy green personal care products.	Rejected
H7: Price Consciousness will have a negative effect on the purchasing intentions of green personal care products.	Rejected
H8: Green Brand Image will have a positive effect on the	Accepted



purchasing intentions of green personal care products.	ed
H9: Consumers' past experiences with green personal green products will have a positive effect on the intention to buy green personal care products.	Accepted
H10: The greater consumers' perceived behavioral control is, the stronger the positive relationship between attitudes and intentions to buy green personal care products.	Accepted

## 5.5 Comparison between Interviews Outcome and Quantitative Research Outcome:

A comparison between the results of each hypothesis will be showcased in this paragraph.

### 5.5.1 Environmental Consciousness:

Both results showed that environmental concerns had a positive effect on the attitude towards buying green personal care products. Thus, environmental concerns are an important predictor of consumers' attitudes. Products that offer recyclable packaging and natural ingredients will be able to have a positive influence on consumers' attitudes towards buying green personal care products.

### 5.5.2 Health Consciousness:

Health was a less important factor to predict consumers' attitudes towards buying green personal care products than environment and appearance concerns. Consumers considered health as a predictor of their attitude only when they experienced health issues such as allergies.

### 5.5.3 Appearance Consciousness:

An important predictor of the attitude towards buying green personal care products was appearance consciousness. The results of the interviews and the survey were aligned. Consumers who have high concerns about their appearance had a more positive attitude towards buying green personal care products. The ingredients of green personal care products encouraged consumers to believe that it is better for their skin and hair and therefore it has a positive effect on their appearance.

### 5.5.4 Perceived Behavioral Control:

The fewer barriers consumers have to buy green personal care products the higher their purchasing intentions are. Both the interview results and the quantitative research results indicated that the higher the perceived behavioral control the greater the change is to translate the positive

attitude towards buying green personal care products to purchasing intentions of these products. Many participants indicated that if they could find green personal care products in the supermarket or the drugstore, they would be more willing to buy them. Also, the availability of green products in different sizes options will help translate the positive attitude into purchasing intentions of green personal care products.

#### 5.5.5 Subjective Norms:

The interview results indicated that social norms and social influence have a positive effect on the intention to buy green personal care products. This result was not supported in quantitative research. This means that even though there is a social pressure to be more environmentally friendly and buy greener products, the decision to buy green personal care products is not determined by subjective norms.

#### 5.5.6 Price Consciousness:

Interview results showed that many participants were willing to pay extra for green personal care products, however, most of the participants were price-conscious and considered the high prices of green personal care products as a barrier for their intentions to buy them. The same results did not occur in the population. According to qualitative research, price consciousness did not have an effect on the intention to buy green personal care products. This means consumers understand that it might cost the company more to be environmentally friendly and this extra effort is translated to relatively higher prices.

#### 5.5.7 Green Brands Image:

The results of the interviews and the survey were aligned. Both results reported that green brand image plays a significant role in increasing the intention to buy green personal care products. The brands that shape themselves as green increase the awareness of green personal care products and the intentions to buy their products. Interviewees shared that they found Lush as a green brand because it encourages recycling and using fair trade products. While the survey results added Dr. Organic and The Body Shop as brands that perceived as green. All the mentioned brands advocate their concerns about the environment and their efforts to be more environmentally friendly.

#### 5.5.8 Past experience with green products:

The experience that consumers had with green personal care products shaped their perception of these products and motivated them to try more green personal care products. Interview results showed that consumers who already tried green personal care products were loyal to them. Also, The qualitative results supported the interview results, past experience found to have a positive effect on the intention to buy green

personal care products. consumers who have green consumption habits have higher intentions to consume more green personal care products.

#### 5.5.9 Attitude toward Buying Green Personal Care Products:

A positive attitude towards buying green personal care products was shared in both conducted research. The survey results showed that a positive attitude towards buying green personal care products has a significant effect on the intention to buy these products. A positive attitude would be likely to change into purchasing intentions of green personal care products if these products were attainable and reflected consumers' values.

### 5.6 Answers to the Central Research Question and Empirical Questions:

The main purpose of this research is to answer the following research questions:

**What are the factors that influence consumers' purchasing intentions of green personal care products in the Dutch market?**

The author discovered after conducting qualitative and quantitative research that the main influencers of the consumers' purchasing intentions of green personal care products are attitudes toward buying green personal care products, these attitudes are predicted by consumers' environmental and appearance consciousness, green brand image, and past experience with green personal care products. Perceived behavioral control moderated the relationship between attitude and intentions to buy green personal care products. Other factors were not supported by the results of the quantitative research.

Answering the first empirical question: What are the important factors that have an effect on attitudes towards buying green personal care products?

According to the previous results, environmental consciousness and appearance consciousness are the most important factors in shaping and predicting consumers' attitudes toward buying green personal care products.

Answering the second empirical question: The main influencers of consumers' intentions to buy green personal care products was the past experience with green personal care products, green brand image, and attitude toward buying green personal care products

Answering the third empirical question: What effect does gender have on the intentions to buy green personal care products?

Gender did not have a significant effect on the intention to buy green personal care products. It is concluded that the usage of green personal care products is not affected by gender.

## 5.7 Managerial Recommendations:

This research provided valuable insight into the factors affecting consumers' intentions to buy green personal care products. This insight can be used by retailers and manufacturers to shape the products according to consumers' preferences by improving ingredients, packaging, and supply chain model. This insight can also be used by brand managers to develop the identity and the image of the brand in alignment with customers' needs (e.g. advertising campaigns, new product development).

The finding of this study suggests that creating a positive attitude towards buying green personal care products plays an essential role in increasing the purchasing intentions of these products. Increasing positive attitudes towards buying green personal care products can be done by emphasizing the environmental benefit of using the studied products. Offering natural ingredients obtained by free trade and recyclable packaging plays a significant role in forming a positive attitude toward buying green personal care products. Additionally, consumers care about their appearance and the effectiveness of green products has an added value to create a positive attitude. Brand managers should highlight the environmental benefit of using the green personal products and the effectiveness of these products on skin and hair as it was concluded that past experience with green personal care products had a positive effect on the purchasing intentions of these products.

Furthermore, brand managers are advised to develop their green brand image. The green brand image was one of the factors that increased the purchasing intentions of green personal care products. All brand aspects need to be perceived as green and ecological. Adding a brand purpose to solve one of the environmental issues can help with shaping green brand identity and improve the brand's green image.

Moreover, The results found that consumers are willing to pay extra for green products. However, green products should be affordable and available in supermarkets, drugstores and online. When consumers are

able to find green personal care products where they do their shopping, it increases their purchasing intentions.

Finally, adapting marketing strategies such as advertising or new product development for family usage can help increase the purchasing intentions of green personal care products.

## 5.8 Academic Recommendations for Further Research:

For further academic research, the author suggests overcoming the limitations of this research.

This research studied the factors affecting green personal care products purchasing intentions, further research should study the factors affecting each type of green personal care products separately.

Further research can study the effect of recyclable packaging and natural ingredients on the attitudes toward buying green personal care products as these 2 factors were mentioned by the interviewees as the main drivers of their positive attitude towards green personal care products.

Another suggestion is to explore other factors that might have an effect on purchasing intentions of green personal care products such as the trustworthiness of the brand and the effect of green advertising.

Finally, the effect of the parent company of the green brand on the brand's purchasing intentions can be further studies.

## 5.9 Research Limitations:

The first limitation of this study is the use of convenient sampling. This sampling method did not offer a representative sample of the whole population.

The second limitation is that the interviews and the online survey were published in the English language due to the researcher's lack of knowledge of the Dutch language. The usage of the English language limited the results of the interviews and the online survey to only individuals with good knowledge of the English language. Therefore, the results of this research cannot be generalized to the whole population of The Netherlands.

Additionally, the research was conducted to investigate the factors affecting the purchasing intentions of green personal care products in general thus, the results cannot apply to other green product categories.

Finally, only the improved conceptual model was tested in the methodology. One limitation of this paper is not testing to what extent the relationships suggested in the initial conceptual model occur in the population.

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## Appendix

### Appendix A: Code List:

Environmental consciousness	<ol style="list-style-type: none"><li>1. How do you describe your concern about the environment?</li><li>2. Describe how your concerns about the environment will affect your decision to buy green personal care products?</li><li>3. Describe how your concerns about the environment will affect your attitude toward buying green personal care products?</li></ol>
Health consciousness	<ol style="list-style-type: none"><li>1.How do you describe your concerns about your health and how healthy the products you are using?</li><li>2.Describe how your health concerns affect your purchasing decision of green personal care products?</li><li>3. Describe how your health concerns affect your</li></ol>

	attitude toward buying green personal care products?
Appearance consciousness	<ol style="list-style-type: none"> <li>1. How do you describe your concerns about your appearance?</li> <li>2. Describe how your concerns about your appearance will affect your decision to buy green personal care products?</li> <li>3. Describe how your concerns about your appearance will affect your attitude toward buying green personal care products?</li> </ol>
Subjective norms	<ol style="list-style-type: none"> <li>1. Describe how the people around you influence your decision of buying green personal care products?</li> <li>2. Describe how the people around you will change your attitude toward buying green personal care products?</li> </ol>
Past experience with personal green products	<ol style="list-style-type: none"> <li>1. How do you describe green personal care products available in the market?</li> <li>2. What are the products that you use as green or prefer to use as green?</li> </ol>
Perceived behavioral control	<ol style="list-style-type: none"> <li>1. Describe how the availability/barriers of buying green personal care products affect your attitude toward buying them?</li> <li>2. Describe how the availability/barriers of buying green personal care products affect your intention to buy them?</li> </ol>
Price consciousness	<ol style="list-style-type: none"> <li>1. Describe how sensitive you are toward the prices of green personal care products? (determine if it's negative or positive price sensitivity)</li> <li>2. Describe how the price will affect your attitude toward buying green personal care products?</li> <li>3. Describe how the price will affect your decision to buy green personal care products?</li> </ol>
Green brand image	<ol style="list-style-type: none"> <li>1. Describe how the brand's concern about the environment will affect your decision to buy it?</li> <li>2. Describe how the brand's concern about the environment will affect your attitude toward buying the brand's products?</li> </ol>
Attitude towards buying personal green products	<ol style="list-style-type: none"> <li>1. Describe what buying green personal care products would be to you?</li> <li>2. From what we discussed earlier, which factors will affect your attitudes toward buying green products but will not affect your intention to buy the green product?</li> </ol>
Buying intentions of green products	<ol style="list-style-type: none"> <li>1. How do you describe your likelihood or intentions to buy green personal care products?</li> <li>2. From what we discussed earlier, which factors will affect your intention to buy the green product but will not change your attitude toward buying green</li> </ol>



	products?
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## Appendix B: Questions Transcripts:

### 1. How do you describe your concern about the environment?

Participant	Answer	Effect
1	I try to be environmentally friendly when I can	+
2	Environment is a hot topic so I am more conscious about it	+
3	I am concerned about the environment	+
4	It is a global issue, I am very concerned	+
5	I really care about the environment	+
6	I am very concerned about the environment	+
7	High concern about the environment	+
8	I have concerns about the environment	+

### 2. Describe how your concerns about the environment will affect your decision to buy green personal care products?

Participant	Answer	Effect
1	High intentions to buy it	+
2	My intention might increase but not for sure	-
3	I still buy products that are not green for my skin but I will like to buy greener products	-
4	It will increase my likelihood	+
5	I am willing to buy products that do not harm the environment	+
6	I have high intentions to buy environmentally friendly products	+
7	I will have high intentions to buy green personal care products if they do not harm the environment	+
8	My environmental concerns will positively affect my decision of buying green personal care products	+

### 3. Describe how your concerns about the environment will affect your attitude toward buying green personal care products?

Participant	Answer	Effect
1	If the product is non-polluting I will have a more positive attitude	+
2	Environmental concerns amplify peoples attitude toward green products	+
3	It has an effect on my attitude but not as much as my health	+
4	It has an effect on my attitude, green products are better for the environment	+
5	It will have a positive impact on my attitude	+

6	It will have a positive effect on my attitude	+
7	It will positively affect my attitude towards buying green personal care products	+
8	I find using green personal care products more beneficial for the environment	+

4. How do you describe your concerns about your health and how healthy the products you are using?

Participant	Answer
1	Moderate concern
2	Somewhat concerned
3	High concerns about my health
4	Highly concerned
5	Very concerned
6	Moderate concern
7	Not concerned
8	Not concerned

5. Describe how your health concerns affect your attitude toward buying green personal care products?

Participant	Answer	Effect
1	It has a positive effect, It is more likely that the product is good for me and the environment	+
2	My attitude will be positive even if I do not have health concerns	+
3	It will have an effect on my attitude	+
4	It will affect my attitude towards green products, green is better to use	+
5	It will have a positive effect on the attitude	+
6	It will have an effect in attitude	+
7	It has no effect on the attitude towards green personal care products	-
8	It has no effect on the attitude towards green personal care products	-

6. Describe how your health concerns affect your intentions toward buying green personal care products?

Participant	Answer	Effect
1	It has a huge effect because of the ingredients they use	+
2	I do not think it affects my intentions	-

3	It can affect my intention to buy greener products	+
4	It might affect the intentions but not for sure	+
5	We will have children so we need to care about how green the products we are buying.	+
6	I will always try to buy green personal care products when I can	+
7	It has no effect on my intentions to buy green personal care products	-
8	If I have health issues I will have high intentions to buy green personal care products	+

7. How do you describe your concerns about your appearance?

Participant	Answer
1	Appearance is a relatively important
2	I like to look good to feel good/ appearance is relatively important
3	I have high concerns about my appearance
4	Very concerned
5	Highly concerned
6	Highly concerned
7	Low concern
8	Low concern

8. Describe how your concerns about your appearance will affect your attitude toward buying green personal care products?

Participant	Answer	Effect
1	Doesn't have much effect on the attitude towards green products	-
2	If the product has a good effect and it is green, I will definitely have a better attitude	+
3	Green products are better for the environment	+
4	It will have a positive effect on the attitudes towards green personal care products	+
5	My appearance will influence my attitude toward green personal care products. If consumers only want green products they can influence producers	+
6	Concern about appearance will affect my attitude towards green personal care products	+
7	No effect on attitudes towards green products	-
8	No effect on attitudes towards green products	-

9. Describe how your concerns about your appearance will affect your decision to buy green personal care products?

Participant	Answer	Effect
1	High intentions to buy natural ingredients	+
2	My intentions are not affected by my appearance it is highly dependent on price and availability	-
3	It depends on other factors other than my appearance	-
4	It might have an effect on intentions to buy green personal care products	+
5	It has a positive effect on intentions to buy green personal care products	+
6	It will have a great effect on intentions to buy green personal care products	+
7	Buying green personal care products will not affect my appearance	-
8	If the green personal care products will help my skin or hair more, I will have more intentions to buy it	+

10. Describe how the people around you influence your decision of buying green personal care products?

Participant	Answer	Effect
1	I listen to people close to me and motivate me to buy greener products	+
2	My friend's opinion does not affect my intentions	-
3	It will have a high effect on my decision to buy green personal care products	+
4	They will have a positive influence on my intentions	+
5	They will have a positive influence on my intentions	+
6	My intentions to buy greener products might increase when people around me recommend it	+
7	The opinion and recommendations of people around me may increase my intentions to buy green personal care products	+
8	Good recommendations about green personal care products will enhance the change of buying it	+

11. Describe how the people around you will change your attitude toward buying green personal care products?

Participant	Answer	Effect
1	The attitude will change if the people recommended the green product	+
2	People around me might be able to affect my attitude regarding green personal care products	+
3	I would not say they have an effect on my attitude but	-

	they definitely increase my awareness	
4	They might increase my awareness but not change my attitude	-
5	They might affect my attitude toward green products	+
6	People influence does not have any effect on my attitude	-
7	The opinion and recommendations of people around me do not affect my attitude	-
8	My attitude will stay the same, the greener the products the better they are for the environment	-

12. How do you describe green personal care products available in the market?

Participant	Answer
1	Expensive
2	Not available and expensive
3	Available
4	Not available
5	Not available
6	Not available and expensive
7	Not available
8	Expensive and not available in family size

13. Describe how the availability/barriers of buying green personal care products affect your attitude toward buying them?

Participant	Answer	Effect
1	If it is not available in all stores then it is not as beneficial	+
2	It does not affect my attitude, green products are good	-
3	Availability will not affect my attitude	-
4	Does not have an effect on my attitude	-
5	It will not affect my attitude	-
6	It does not affect the attitude towards green personal care products	-
7	Availability or barriers does not change my idea about buying green personal care products	-
8	It does not affect my attitude towards buying green personal care products	-

14. Describe how the availability/barriers of buying green personal care products affect your intention to buy them?

Participant	Answer	Effect
1	Poor availability effects the intentions to buy green personal care products	+
2	It will have a huge effect on my intentions	+
3	It will definitely affect my purchasing intentions	+
4	It will have an impact on my intentions	+
5	It will definitely affect my purchasing intentions, I do not want to spend time searching for a green personal care product	+
6	If the products are not easily accessible, my intentions will be lower	+
7	Availability will definitely affect my purchasing intentions	+
8	If green personal care products are available I will be more willing to buy them	+

15. Describe how sensitive you are toward the prices of green personal care products?

Participant	Answer
1	Very sensitive to prices
2	I can pay a little extra but I am price sensitive
3	Somewhat sensitive
4	Very sensitive to prices
5	Average, I am willing to pay extra for green personal care products
6	Low, I am willing to pay extra for green personal care products
7	Very sensitive to prices
8	Highly sensitive

16. Describe how the price will affect your attitude toward buying green personal care products?

Participant	Answer	Effect
1	If the prices are high it will change how beneficial I find green products	+
2	It does not affect my attitude	-
3	It does not affect my attitude	-
4	Price does not affect my attitude	-
5	My attitude does not change with price	-
6	Attitude toward the green product does not change with price	-
7	High prices might change how beneficial I find buying green products	+

8	The price of green personal care products does not change my attitude	-
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17. Describe how the price will affect your decision to buy green personal care products?

Participant	Answer	Effect
1	Higher prices fewer intentions	+
2	It will determine my intentions to buy green personal care products	+
3	My intentions will be affected by the price	+
4	If the green product is expensive it will negatively affect my intentions to buy it	+
5	It will definitely affect my intention or likelihood to buy the green personal care product	+
6	If the green personal care products are expensive, intentions to buy it is lower	+
7	I will withdraw from buying highly-priced green personal care products	+
8	It has a huge effect especially for a family usage	+

18. Describe how the brand's concern about the environment will affect your decision to buy it?

Participant	Answer	Effect
1	Brands concerns about packaging and ingredients are very important	+
2	I will purchase a brand that cares about the environment	+
3	I will definitely buy a Brand that advertises for their environmental concerns	+
4	It will have an effect on my purchasing decision	+
5	If the brand is genuinely concerned I will buy it	+
6	It might affect the intentions	+
7	Brand's image has a high effect on my decision to buy it	+
8	How the brand is represented affect my decision to buy it	+

19. Describe how the brand's concern about the environment will affect your attitude toward buying the brand's products?

Participant	Answer	Effect
1	It will affect my attitude to be more positive	+



2	My attitude is always positive about green products	-
3	It will not have an effect on my attitude	-
4	It will not change or affect my attitude	-
5	My attitude is not affected by the brand image, I know green products are good	-
6	I will have a more positive attitude toward the brand's products	-
7	It might affect how I see green personal care products	+
8	It might affect my attitude in general	+

20. Describe what buying green personal care products would be to you?

Participant	Answer	Effect
1	Ideally beneficial for my health and the planet	+
2	I think it is good and beneficial	+
3	Beneficial for both my skin and the environment	+
4	Good but pricy	+
5	I would say good	+
6	I am supporting a healthier and sustainable world, positive attitude	+
7	I do not think it is useful to buy green personal care products	-
8	I find it good but it is a habit to build further	+

21. From what we discussed earlier, which factors will affect your attitudes toward buying green products but will not affect your intention to buy the green product?

Participant	Answer
1	Most factors that affect my attitude affect my intentions, they are connected to me
2	Environmental concerns, health concerns, appearance
3	Environmental concerns, health concerns, appearance, brand image (identity)
4	Health, environmental concerns
5	Environmental concerns, health concerns, appearance
6	Environmental concerns and health concerns
7	Environment and brand image
8	Environmental and health concerns

22. How do you describe your likelihood or intentions to buy green personal care products?

Participant	Answer	Effect
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Participant		Attitude
1	I have high intentions but less likelihood to buy because of availability and price	+
2	Lower intentions to buy because of high prices and unavailability	+
3	Somewhat high intentions	+
4	High likelihood but it depends on the price	+
5	High likelihood to buy green personal care products	+
6	If the ingredients are natural my likelihood to buy the green product is high	+
7	The likelihood to buy is highly dependent on the brand	+
8	I have high intentions but they are dependent on price and availability	+

23. From what we discussed earlier, which factors will affect your intention to buy the green product but will not change your attitude toward buying green products?

Participant	Answer
1	If the brand is not presented well it will affect my attitude but not my intentions
2	Availability and price
3	Price, availability, brand image and people around me will affect my intentions
4	Availability, price and how trustworthy is the brand
5	The supply chain process of producing the product, the brand's trustworthiness
6	Availability
7	The opinion of the people around me
8	Price, availability and people influence

## Appendix C: Survey Questions:

Q3 What is your age?

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Q7 What is your gender?

- ☐ Male (1)
- ☐ Female (2)

Q4 What is your educational level?

- ☐ MBO (1)
- ☐ HBO (2)
- ☐ University Education (3)
- ☐ Master and/or Higher Education (4)

Q5 What is your employment status?

- ☐ Full-time employee (1)
- ☐ Part-time employee (2)
- ☐ Unemployed (3)
- ☐ Student (4)

Q8 What is your relationship status?

- ☐ Single (1)
- ☐ In a relationship without children (2)
- ☐ In a relationship with children (3)
- ☐ Single with children (4)

Q9 In your opinion which of the following brands do you consider 'Green':

- ☐ Lush (17)
- ☐ Love, Beauty and Planet (18)
- ☐ The Body Shop (19)
- ☐ Dr. Organic (20)
- ☐ None of them (21)

Q10 Which type of personal care products do you prefer to buy as green?

- ☐ Green Shampoo (40)
  - ☐ Green Facial products (41)
  - ☐ Green Body care products (42)
  - ☐ Green Cleansing products (e.g. Hand soap ..etc) (43)
  - ☐ I do not prefer to buy green personal care products (44)
- 

Q11 How many green products have you purchased in the past three months?

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Q14 Please indicate to what extent do you agree or disagree with the following statements:

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
I worry that there are harmful chemicals in my food (1)	0	0	0	0	0	0	0
I usually read the ingredients on products' labels (2)	0	0	0	0	0	0	0
I am interested in information about my health (3)	0	0	0	0	0	0	0
I am concerned about my health all the time (4)	0	0	0	0	0	0	0

Q15 Please indicate to what extent do you agree or disagree with the following statements:

	Strongly disagree (1)	Disagree (2)	Somewha t disagree (3)	Neither agree nor disagree (4)	Somewha t agree (5)	Agree (6)	Strongly agree (7)
What I look like is an important part of who I am (1)	0	0	0	0	0	0	0
I am usually aware of my appearanc e (2)	0	0	0	0	0	0	0
By controlling my appearanc e, I can control many of the social and emotional events in my life (3)	0	0	0	0	0	0	0

Q16 Please indicate to what extent do you agree or disagree with the following statements:

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
People who influence my behavior would approve of me buying green personal care products (1)	0	0	0	0	0	0	0
Most people who are important in my life would approve of me buy green personal care products (2)	0	0	0	0	0	0	0
People who influence my behavior would encourage me to use green personal care products (3)	0	0	0	0	0	0	0
People who are important to me would encourage me to use green personal care products (4)	0	0	0	0	0	0	0

Q17 Please indicate to what extent do you agree or disagree with the following statements:

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
I believe that I have the resources and the ability to buy green personal care products (1)	0	0	0	0	0	0	0
I face very high barriers in buying green personal care products (2)	0	0	0	0	0	0	0
If I want I could easily buy green personal care products (3)	0	0	0	0	0	0	0

Q18 Please indicate to what extent do you agree or disagree with the following statements:

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
I am willing to go to extra effort to find lower prices (1)	0	0	0	0	0	0	0
I will shop at more than one store to take advantage of low prices (2)	0	0	0	0	0	0	0
I would always shop at more than one store to find low prices (3)	0	0	0	0	0	0	0
The money saved by finding lower prices is usually worth the time and effort (4)	0	0	0	0	0	0	0
The time it takes to find lower prices is usually worth the effort (5)	0	0	0	0	0	0	0



Q19

'Green brand image' is the perception you have of the brand's commitment to environmental issues. To what extent do you agree or disagree with the following statements: I consider the brand green when:

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
The brand is regarded as the best benchmark of environmental commitments (1)	0	0	0	0	0	0	0
The brand is professional about environmental reputation (2)	0	0	0	0	0	0	0
The brand is successful about environmental performance (3)	0	0	0	0	0	0	0
The brand is well established about environmental concern (4)	0	0	0	0	0	0	0
The brand is trustworthy about environmental promises (5)	0	0	0	0	0	0	0

Q20 In your opinion: Buying green personal Care products would be:

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	
Extremel y Bad	0	0	0	0	0	0	0	Extremel y Good
Extremel y unpleasa nt	0	0	0	0	0	0	0	Extremel y Pleasant
Extremel y foolish	0	0	0	0	0	0	0	Extremel y Wise
Extremel y harmful	0	0	0	0	0	0	0	Extremel y beneficia l

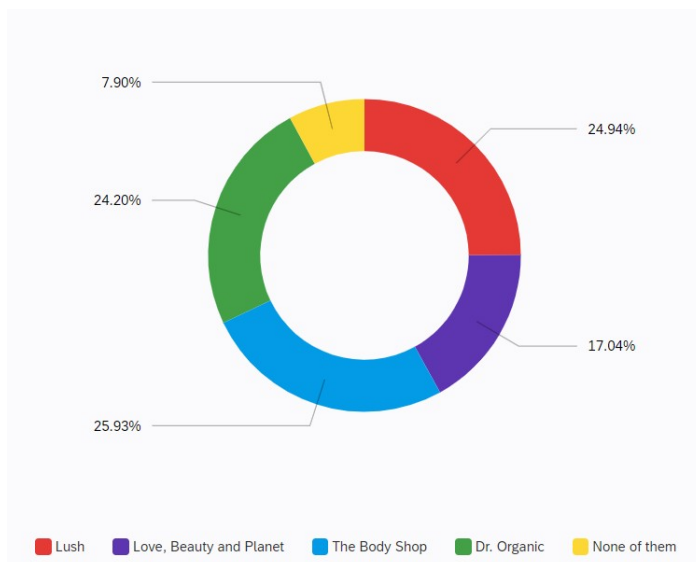
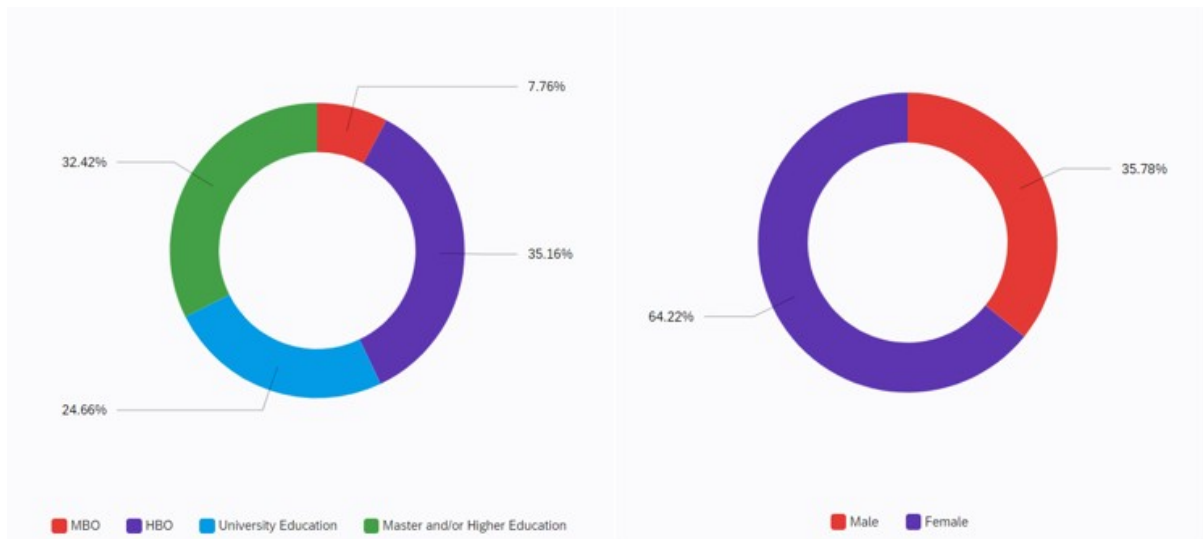
Q12 Please indicate to what extent do you agree or disagree with the following statements:

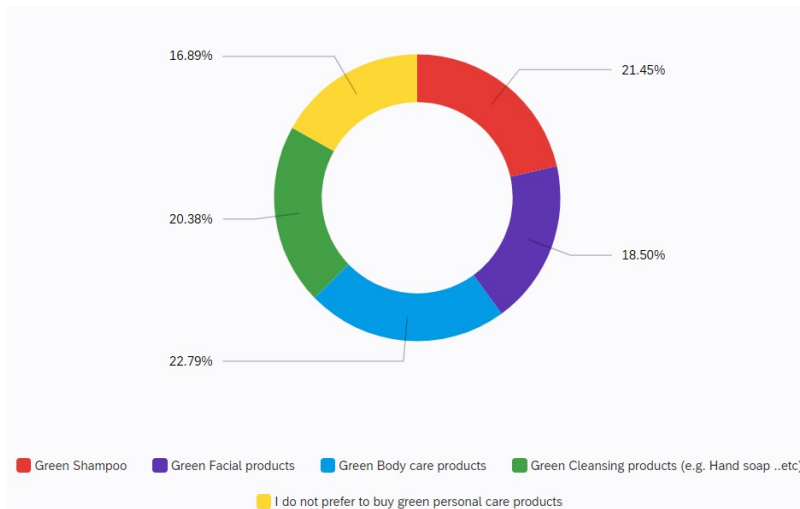
	Strongly disagree (1)	Disagree (2)	Somewha t disagree (3)	Neither agree nor disagree (4)	Somewha t agree (5)	Agree (6)	Strongly agree (7)
When I think of the ways industries are polluting the environment, I get frustrated and angry (1)	0	0	0	0	0	0	0
I am concerned a lot about environment al problems (2)	0	0	0	0	0	0	0
I prefer to buy products produced in an environment ally sound manner (3)	0	0	0	0	0	0	0
I become incensed when I think about the harm being done to plant and animal life by pollution (4)	0	0	0	0	0	0	0

Q22 Please indicate to what extent do you agree or disagree with the following statements:

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
It is likely that I will purchase green personal care products (1)	0	0	0	0	0	0	0
If green personal care products are available, I buy it (2)	0	0	0	0	0	0	0
I am willing to purchase green personal care products (3)	0	0	0	0	0	0	0

## Appendix D: Demographics:





Age Frequencies					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	15	1	.5	.5	.5
	16	2	.9	.9	1.4
	19	1	.5	.5	1.8
	20	10	4.6	4.6	6.4
	21	16	7.3	7.3	13.7
	22	39	17.8	17.8	31.5
	23	19	8.7	8.7	40.2
	24	34	15.5	15.5	55.7
	25	21	9.6	9.6	65.3
	26	20	9.1	9.1	74.4
	27	7	3.2	3.2	77.6
	28	7	3.2	3.2	80.8
	29	5	2.3	2.3	83.1
	30	4	1.8	1.8	84.9
	31	4	1.8	1.8	86.8
	32	6	2.7	2.7	89.5
	34	8	3.7	3.7	93.2
	35	3	1.4	1.4	94.5
	36	1	.5	.5	95.0
	38	1	.5	.5	95.4
	40	2	.9	.9	96.3
	41	1	.5	.5	96.8
	43	1	.5	.5	97.3
	50	2	.9	.9	98.2
	55	1	.5	.5	98.6

	60	1	.5	.5	99.1
	61	1	.5	.5	99.5
	64	1	.5	.5	100.0
	Total	219	100.0	100.0	

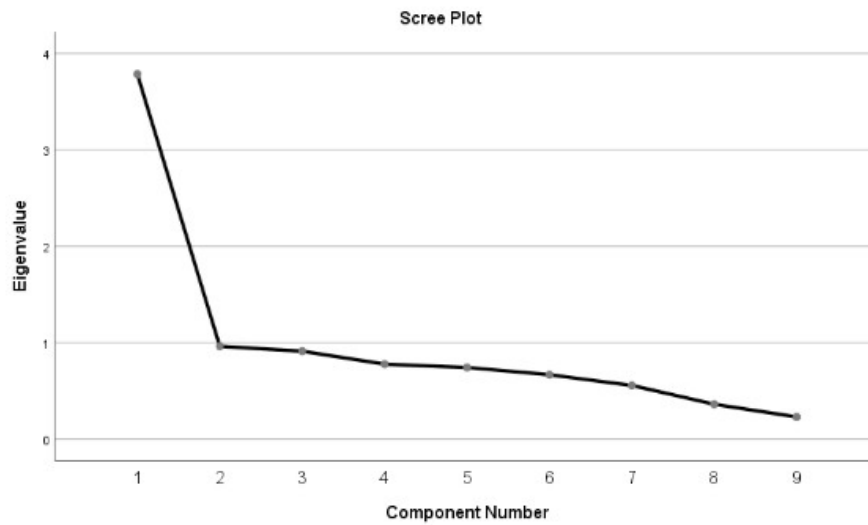
Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	male	79	36.1	36.1	36.1
	female	140	63.9	63.9	100.0
	Total	219	100.0	100.0	

Relationship Status Frequencies					
		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	Single	81	37.0	37.0	37.0
	Single Parent	6	2.7	2.7	39.7
	Relationship	110	50.2	50.2	90.0
	Relationship/ Kids	22	10.0	10.0	100.0
	Total	219	100.0	100.0	

Employment Status Frequencies					
		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	Student	122	55.7	55.7	55.7
	Full-time	58	26.5	26.5	82.2
	Part-time	30	13.7	13.7	95.9
	Unemployed	9	4.1	4.1	100.0
	Total	219	100.0	100.0	

## Appendix E: Factor Analysis:

Factor analysis scree plot:



Factor analysis: Total variance explained:

Compone nt	Initial Eigenvalues		
	Total	% of Variance	Cumulati ve %
1	3.785	42.058	42.058
2	.963	10.704	52.763
3	.912	10.135	62.897
4	.778	8.644	71.541
5	.743	8.259	79.800
6	.668	7.426	87.226
7	.557	6.191	93.417
8	.362	4.024	97.441
9	.230	2.559	100.000

## Appendix F: Regression Analysis:

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	119.881	12	9.990	9.035	.000 <sup>b</sup>
	Residual	227.770	206	1.106		
	Total	347.651	218			
a. Dependent Variable: Attitude						
b. Predictors: (Constant), EC, Unemploy, InRelation, HBOEdu, PartTime, MBOEdu, AC, SingleParent, InRelationKids, MasterEdu, FullTime, HC						

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.642 <sup>a</sup>	.412	.366	1.06200
<b>a. Predictors: (Constant), InRelationKids, GBI, PE, Unemploy, HBOEdu, PartTime, MBOEdu, Attitude, Gender, InRelation, PC, SN, SingleParent, FullTime, MasterEdu, Age</b>				

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	159.882	16	9.993	8.860	.000 <sup>b</sup>
	Residual	227.823	202	1.128		
	Total	387.704	218			
a. Dependent Variable: Intent						
b. Predictors: (Constant), InRelationKids, GBI, PE, Unemploy, HBOEdu, PartTime, MBOEdu, Attitude, Gender, InRelation, PC, SN, SingleParent, FullTime, MasterEdu, Age						





## Appendix G: Moderation Analysis:

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.386 <sup>a</sup>	.149	.141	1.23594
<b>a. Predictors: (Constant), PBC, Attitude</b>				

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	57.753	2	28.876	18.904	.000 <sup>b</sup>
	Residual	329.952	216	1.528		
	Total	387.704	218			
a. Dependent Variable: Intent						
b. Predictors: (Constant), PBC, Attitude						

Model 2 including the interaction effect:

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.410 <sup>a</sup>	.168	.157	1.22465
a. Predictors: (Constant), Modertaor, Attitude, PBC				

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	65.256	3	21.752	14.504	.000 <sup>b</sup>
	Residual	322.448	215	1.500		
	Total	387.704	218			
a. Dependent Variable: Intent						
b. Predictors: (Constant), Modertaor, Attitude, PBC						

