Bachelor Thesis

The great and green cosmetic choice

A quantitative study explaining behavioral intentions behind purchasing green cosmetic products.

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Abstract

Purpose - The purpose of this thesis is to explain the impacts of attitude, subjective norms and perceived behavioral control on Swedish consumers' intentions to purchase green cosmetics.

Methodology - This thesis utilizes a multiple regression analysis based on an online self-completion questionnaire with respondents inside the sampling frame of Swedish Millennials and generation z consumers.

Results - This thesis provides an understanding that Attitude, Subjective Norm and Perceived behavioral control can positively impact green cosmetic purchase intention.

Originality / value - Testing the model of TPB as previously applied in green cosmetic consumption research, in a greener highly competitive growing market of Swedish personal care products.

Keywords - Green cosmetic products, TPB, Behavioral intentions, Sustainability, Consumer behavior

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1. Introduction

In this chapter, the topic of the study is presented as well as providing background information on the research area. Thereafter, the problem is discussed to motivate the research, and why the research area is important. Lastly, the identified research gap in the existing literature is presented as well as the research purpose.

1.1 Background

The desire for green products among consumers worldwide is an increasing trend, continuously growing (Limbu, Pham and Nguyen, 2022; Shukre, 2022; Pudaruth, Juwaheer and Seewoo, 2015; Shimul, Cheah and Khan, 2021) Consumer demand for green products in general has drastically increased over the past decade due to growing environmental concern among consumers, as well as growing awareness about consumers own consumption's effect on the environment (Ottman, 2011; Limbu, Pham and Nguyen, 2022). The growing demand for sustainable products from brands across all consumer generations is giving businesses a high need of knowing how to adapt accordingly to stay alive (Ottman, 2011: Stelmaszczyk, 2022). Moreover, the cosmetic industry is in the hold of one of the world's leading markets (Grand View Research, 2019). According to Grand View Research (2019) with expected cosmetic market size globally to expand at a compound annual growth rate of 4,2 %. This is only between 2023 and 2030 (Grand View Research, 2019).

The Swedish cosmetic market has over the past decades, similarly to the global green movement, experienced a drastic change in consumer needs, and in addition to this Sweden is in the lead in Europe when looking at green consumption (Open Trade Gate Sweden, 2022: Statista, 2023). As seen from Statista's report (2023) on the green

cosmetic industry in Sweden, it is reported that the revenues from the organic skin and beauty care industry in Sweden in 2021 were estimated to be 485 million SEK and that these high revenues are further expected to increase by almost 50% until the year 2025 (Statista, 2023). Apart from the green cosmetic market, Sweden is in addition the most sustainable country in the Nordics (Lopez, 2022). In addition, found in Open Trade Gate Sweden's report (2022), Swedish consumers are in the lead in Europe when it comes to highly valuing eco-friendly alternatives when deciding on a purchase or not. Moreover, 95% of the consumers in this country claim to notice eco-labels and 70% of consumers explain that eco-labels are important while evaluating products before purchase. Among all European countries, the market of natural cosmetics in Sweden is expected to hold the largest share of the cosmetic market in the upcoming years (Open Trade Gate Sweden, 2022).

Indicating that to stay alive in the growing Swedish cosmetic market marketers must know how to stay attractive at the same time as focusing on selling greener products, following the needs of the consumers for green cosmetic products. Green cosmetic products meet this demand for green since these are personal care products that have a less harmful impact on human health and the planet (Patsnap, 2022). Green cosmetics have the following attributes; durability, non-toxic chemicals, recyclable materials, made from organic materials, and minimal packaging (Ottman, 1998). A green cosmetic product is hence a personal care product safe for the environment and people's health, regarding both production, the product, and the packaging, with only natural non-toxic ingredients in it (Ecocert, 2023; Ottman 1998; Patsnap, 2022). Furthermore, a green cosmetic product includes all cosmetic product categories: skincare, makeup, fragrance, and others such as hygiene and personal care products (Grand View Research, 2019).

1.2 Problem discussion

This study aims at providing insight into what impacts the behavior of green cosmetic consumption among consumers. Solomon et al (2019) explain that an understanding of consumer behavior is the key to developing marketing strategies for a brand to survive in the market. From an understanding of consumer behavior marketers would know how consumers reason while evaluating offers and hence one can adapt marketing efforts of product development and communication accordingly to stay attractive and competitive (Solomon et al, 2019). Tuten and Solomon (2019) address that to succeed in the market today and in the future, businesses must ensure value is delivered concerning consumers' changing needs. Moreover, one must stay competitive today and outcompete more actors than ever before since the market is now more competitive due to digitalization and social media breakthroughs. The connections between people and businesses online have increased the number of business offers that consumers are exposed to and hence have the possibility to choose from, daily, meaning that market communication must ensure one stands out and attracts consumers by displaying how the offer provides value better than competing actors (Tuten and Solomon, 2019). Therefore to help marketers in the cosmetic industry stay attractive and competitive in the large and growing market with a high need for green products, this study by providing further understanding of consumer behavior can be helpful.

In social sciences and used to understand consumers' reasoning behind their behavior the theory of planned behavior, TPB, is widely used. Ajzen's (1991) theory of planned behavior, commonly mentioned as TPB, showcases there major aspects of consumer behavior that affect consumer intention to later perform a behavior. According to Ajzen (1991), the aspects affecting behavioral intentions are *attitudes, subjective*

norms, and *perceived behavioral control.* Ajzen (1991) explains that to affect behavior one needs to understand how an intention to perform the behavior is created through the effect of these elements. Here *attitudes* are people's combined views of and opinions towards a specific object or behavior that has been built up from personal beliefs and previous experience (Ajzen, 1991). Consumer *attitudes* serve a substantial role in the decision-making process for consumers as attitudes help guide our everyday life decisions by providing a shortcut of opinions in people's evaluation processes (Ajzen, 1991). Furthermore, *subjective norms* have an impact on our intentions to perform a behavior as this is a consumer's perceived social pressure from people in ones surrounding. What one believes is considered okay and not according to others is believed to affect one's decision of performing certain behaviors or not. Thirdly, behavioral intentions are affected by *perceived behavioral control*, PBC. Referring to how in control a person feels one is over the behavioral performance in terms of abilities and resources needed to participate in the behavior in question and a sense of own control of the behavior performance (Ajzen, 1991).

TPB has been applied in research regarding consumer behavior to understand how intentions to perform a behavior are affected (Jaini et al, 2019; Jang, Chung and Kim, 2014; Shimul, Cheah and Khan, 2021; Hsu, Chang and Yansritakul, 2017). In this study, the behavior in question is purchasing green cosmetic products. TPB is useful in this case since it has been applied several times concerning green consumption behavior. For example while studying organic and sustainable food consumption (Vermeir & Verbeke, 2006, Lim et al. 2014: Tarkiainen & Sundqvist, 2005). When studying behavioral intentions toward green hotels (Chen and Tung 2014) and by Paul et al (2016) in connection to green products. Moreover, the model and its elements have been used with modifications in the area of green cosmetic consumption (Chin et al., 2018; Khan and Salim, 2020; Limbu, Pham and Nguyen, 2022; Karatu and Nik Mat, 2015; Pudaruth, Juwaheer and Seewoo, 2015; Shimul, Cheah and Khan, 2021: Shukre, A., 2022).

However, research on green cosmetic consumption has not been done previously in Sweden. The focus of previous literature in the field of cosmetic consumption has been on developing countries and other countries outside the Nordics. For example in

Vietnam (Limbu, Pham and Nguyen, 2022), in Nigeria (Karatu and Nik Mat, 2015), Mauritius (Pudaruth, Juwaheer and Seewoo, 2015), South Africa (Shimul, Cheah and Khan, 2021) and India (Shukre, A., 2022). Here the main focus is on wanting to increase sustainable consumption. Setyawan et al, 2018 and Liobikienė and Bernatonienė, 2017, points out that while studying green consumption, the results are highly contextually dependent, differing depending on the type of industry and product and demographic setting. Thus to help marketers in Sweden understand the consumption here it is beneficial to test the model in this new context. To understand if the previous use of TPB is reliable in this cultural context as well. This research hence contributes to the understanding of consumer behavior of green cosmetic consumption using TPB, by applying the model to a sample of specifically Swedish consumers. Another cultural context than previously studied. This is because marketers hence are provided with knowledge regarding the consumers one specifically is targeting. This thesis hence contributes to an understanding of the model fit in a new cultural context. From a sustainable viewpoint, this study in addition provides one puzzle piece useful in creating more sustainable consumption and production in society in a country where green consumption is high and demand for green is extreme.

Marketers from the present study are guided to where the emphasis should be on further studying consumer behavior and what aspects of the consumer's intention formation to utilize in market communication to stay competitive and purchase green cosmetics. By providing insight into what elements impact intentions this study furthermore opens up the possibility for future exploration of an in-depth understanding of why consumers reason the way they do. Explaining what impacts green cosmetic consumption among Swedish consumers. In addition to understanding what has the strongest impact on behavioral intentions. Since one from this study would know what aspects affect intentions to purchase green cosmetic products, this contributes as an addition to green cosmetic consumption research by adding a new cultural context through studying a new sample. Moreover, useful for marketers who

want to stay competitive by attracting consumers in the Swedish cosmetic market and moving towards becoming greener.

1.3 Purpose

The purpose of this thesis is to explain the impacts of attitude, subjective norms and perceived behavioral control on consumers' intentions to purchase green cosmetics.

2. Theoretical framework

This chapter presents the relevant literature and antecedent research that will serve as a theoretical foundation to address the research objective. The literature review offers an overview of the theory of planned behavior, and its key components forming behavioral intentions; attitudes, subjective norm and perceived behavioral control.

2.1 Behavioral intention

Ajzen (1991) describes intentions as a factor that captures the motivational aspects behind certain behaviors. These motivational factors drive a person to perform a certain behavior. Hence, a formed intention facilitates as an indicator of how willing consumers are to perform a specific behavior or act (Ajzen, 1991). It is evident from research on behavior that no matter if a behavior is carried out or not this action is decided from a formed intention to participate in the behavior or not (Fishbein and Ajzen, 1975). Indicating that one might have a behavioral intention to act in a certain way before acting, meaning one's behavioral intention is a good predictor of if the behavior in question will be performed (Fishbein and Ajzen, 1975).

While studying people's relationships between one's attitudes and behavior, Fishbein and Ajzen (1975) explain that the usual measurement used for studying if behavior is likely to happen has been by studying behavioral intention instead of actual behavior. In other words, several studies aiming at predicting behavior have focused on if the

person intends to behave, more than if they did behave in a certain way (Fishbein and Ajzen, 1975).

The stronger behavioral intentions one has, indicate a higher probability of consumers engaging in or performing a certain behavior (Ajzen, 1991). It is similarly later found by Ajzen (1991) that a consumer's intention is very likely to predict if the behavior will be carried out in the end. However one can never be certain since consumers are affected by different inputs in their decision-making every day and hence intentions do not in all cases predict the end behavior (Ajzen, 1991).

As opposed by Fishbein and Ajzen (2010), several researchers have discussed how one can measure intentions to perform a behavior and that behavioral expectations are similar to intention. Furthermore, the intention is formed regarding a specific time, situation, target object, and behavior in question (Fishbein and Ajzen, 1975). Moreover, according to Gibbons et al., (1998) as cited in Fishbein and Ajzen (2010, p.42) while aiming for a prediction of behavior, willingness to engage in behavior and behavioral expectation, also named intention, was explored. Found was that willingness and behavioral expectation, as single measurements did not have the same level of predictability on if one would engage in a behavior. However if one studies expected behavior (intention) and willingness to perform the behavior together these become stronger predictors of actual behavior (Gibbons et al., 1998 as cited in Fishbein and Ajzen, (2010, p.42). Fishbein and Ajzen (2010) point out that one can measure intentions to engage in behavior through the statements "I will try to", "I intend to", and "I plan to".

2.1.2 Attitude

One of the key elements driving consumers' behaviors is attitudes (Armstrong et al., 2015). In TPB, an attitude towards a certain behavior is an expectation that the behavior will lead to a certain experience or outcome (Ajzen, 1991). According to TPB, positive attitudes are considered to be the main determinant of behavioral intentions to perform a certain behavior, while negative attitudes are likely to result in a lower intention to perform a behavior. However, Ajzen further explains in TPB that

attitudes alone may not be sufficient to predict behavior, therefore the other components of *subjective norm* and *perceived behavioral control* may also be of importance when trying to predict a certain behavior. Hence, understanding the role of attitudes in behavior enables modification of attitudes and increases the probability that consumers will perform a certain behavior (Ajzen 1991). Moreover, as stated by Kidwell and Jewell (2010) if individuals have low perceived control over the ability to perform a certain behavior, there is a tendency that this person will rely more on attitude while forming intentions to perform a behavior instead. Thus, attitude is a highly influential element in consumer evaluation, serving as a source of information to rely on if one perceives a lack of behavioral control (Kidwell and Jewell, 2010).

The element of attitude is according to Ajzen (1991) believed to be based on one's beliefs about the consequences of certain actions and behaviors, which are called behavioral beliefs. Behavioral beliefs refer to one's subjective perception of the probability a specific behavior will result in a particular outcome. Hence, Ajzen (1991) states that behavioral beliefs are theorized as positive or negative overall attitudes toward the behavior, therefore attitudes have a strong influence on intentions (Ajzen, 1991). Mcbride et al (2020) similarly explain that a suitable way to understand an attitude is to explain it as a consumer's positive or negative thoughts about a behavior. Furthermore, Solomon et al (2019) clarify that an attitude is an individual's combined view of an attitude object, that is a particular object, person, situation, or behavior. The view is built upon positive or negative beliefs about the object of evaluation, built from previous experiences (Solomon et al, 2019).

Further emphasized by Ajzen (1991) is that attitudes are considered to be good predictors of behaviors since these influence individuals' decisions making process behind acting in a certain way. Furthermore, Ajzen explains that previous experiences provide certain attributes to the attitude object in question, based upon knowledge about what good or bad consequences come from engaging with the attitude object. (Ajzen, 1991). Furthermore, Solomon et al (2019) explain that attitudes are formed when one expects to face a similar situation or information repeatedly. Since an attitude is a combination of opinions and feelings it serves as a tool that simplifies the consumer's evaluation of a similar attitude object when being introduced to it again.

Therefore attitudes affect consumers' behavioral intentions daily in the evaluation process. (Solomon et al., 2019).

Furthermore, Mcbride et al (2020), clarify that attitudes can be perceived through numerous perspectives, making it difficult to state simply what an attitude exactly is since it is contextually dependent, hence varying what aspects create the attitude (Mcbride et al., 2020). Moreover, Solomon et al., (2019) address that two individuals can form the same attitude, however for very different reasons. However attitudes describe one's consistent evaluation connected to opinions, feelings, and tendencies towards objects or ideas, therefore attitudes provide individuals with a guideline of

liking or disliking something, to know if one should move towards or away from the attitude object for evaluation (Solomon et al., 2019). Most research agrees that attitudes are beliefs that are learned and that attitudes in the evaluation process determine actions toward the attitude object based on having a favorable or unfavorable belief about it (Fishbein and Ajzen, 1975). Once attitudes are established these are difficult to change and changing one's attitude requires difficult adjustments (Armstrong et al., 2015). With this in mind, companies should aim for adjusting products and services to the attitudes of one's consumers. Hence, it is easier to understand consumers' current attitudes and adapt accordingly, rather than trying to change the current existing attitudes since it requires difficult measurements to change (Armstrong et al., 2015).

2.1.3 Subjective norm

Subjective norm is one of three predictors of human behavior and a key component for behavioral intentions. Ajzen's (1991) definition of subjective norm follows: *"[...] subjective norm; it refers to the perceived social pressure to perform or not to perform the behavior".* Cialdini and Goldstein (2004) state that social influence on behavior is particularly strong when the pressure comes from close relationships, such as family, friends, and peers. Hence, social influence and social pressure can shape attitudes, beliefs, and ultimately influence behavior. Ajzen (1991) agrees by emphasizing that the likelihood of a behavior to be performed is influenced by how high the individual

perceives the social pressure. If social pressure is perceived to be high, there are greater chances for the behavior to be performed, as well as the opposite. If social pressure is low, individual beliefs are put higher than subjective norms.

In a study by Park (2000), it was found that people are more likely to be influenced by what they consider and believe others expect of them rather than being influenced by their personal beliefs when it comes to certain behaviors. Depending on whether the behavior in question is considered to be socially approved or not (Park, 2000). Similarly, a study by Nguyen et al., (2019) investigated how the influence of the key elements of TPB affected Vietnamese students' intention to engage in binge drinking which is in general unapproved social behavior in Vietnamese culture. The results of

the study showed that the subjective norm was a significant predictor of the behavior of binge drinking and its intentions and that the influence of the behavior was greater among the students who perceived high levels of social pressure. (Nguyen et al., 2019). This is supported by Manning (2009) who claims that subjective norms have a greater influence on behaviors that are not considered to be socially approved or socially undesirable. Compared to behaviors that are generally considered to be socially approved. If the behavior in question is stigmatized by society, an individual's perception of social pressure from others might influence their decision of engaging in the behavior or not (Manning, 2009). Ajzen (1991) has further addressed that Gorsuch & Ortberg, (1983); Pomazal & Jaccard, (1976), and Schwartz & Tessler, (1972) explain that in certain contexts people's personal feelings and moral view of what is responsible according to one's morals guides a person in the decision of performing or not performing certain behaviors. Similarly, a study by Liu, Liu, and Mo (2020) found that if consumers view a behavior as being the morally correct thing to do, one is more likely to perform the behavior.

It is found by Peattie (2010) that the behavior of consumption can happen habitually or impulsively without much thought going into the process if the behavior is socially accepted. However, when performing undesirable behaviors, information is often gathered from one's close circle such as family, friends, and commercial sources to

understand the social acceptance of the behavior, thus, influencing if one will perform a behavior or not (Peattie, 2010).

2.1.4 Perceived behavioral control (PBC)

According to Ajzen (1991), Perceived behavioral control (PBC) describes if one has the resources and opportunities to carry out certain behaviors and if one believes the decision is in one's own hands. If one does not attain enough resources, it is harder to achieve the desired behavioral outcome, despite a strong motivational will for behavioral achievement. Moreover, PBC refers to whether the consumers perceive having control over the decision to perform the behavior or not. In other words if one feels the behavior is influenced by one's self-control. Common factors that are part of one's PBC are, e.g. motivational factors providing a sense of more control over possible behavior performance. These are for example time, money, and knowledge since these could influence the ability to carry out the behavior, if the possibilities and resources exist and if one feels the decision to perform this is one's own (Ajzen, 1991).

Ajzen and Fishbein (2000), state that PBC is one's perception of how easy or difficult it is to execute a certain behavior. Ajzen (1991) further explains that behavioral achievement can further be addressed by the confidence one possesses over the ability to perform the behavior in question. The more confident one feels about one's ability

to perform the behavior, the more one will rely on past experience and knowledge about how to perform it (Ajzen, 1991).

In a study by Cheng and Huang (2013), where the researchers studied online group buying behavior. It was found that a lack of previous experience among the consumers of using the platform needed to take part in the specific online group buying activity led the consumers to become less likely to participate in the behavior. On the other hand, when consumers had experience with the system needed to take part in online group buying, they were more likely to form a positive intention to participate. The authors explain that the reason behind these effects on the intention is that consumers with a lack of experience with online systems feel more uncertain and rely on the systems less. Therefore these people's intentions were more hesitant to perform the behavior of group online buying (Cheng and Huang, 2013). Similarly, it was found by Kidwell and Jewell (2010) that individuals who perceived to have low confidence in performing a behavior were more likely to contemplate and gather information before making a decision or acting upon a certain behavior, compared to those who felt stronger control over a behavior. As stated by Kidwell and Jewell (2010) when individuals experience a higher level of control over their ability to perform a behavior, their attitudes in addition become a less significant impact on predicting behavior. Since, they can rely on mental shortcuts, including previous experiences and past behaviors, giving them knowledge and hence a sense of confidence and more control (Kidwell and Jewell, 2010).

In addition, Cheng and Huang (2013) found that consumers did not form an intention to participate in the new behavior when they did not rely on the systems needed to perform it. However, those with previous experience and understanding of the systems and how to use these, in other words how to perform the behavior were more likely to intend to participate in the behavior (Cheng and Huang, 2013). Showing further what Ajzen (1991) explains, that knowledge of how to perform the behavior is crucial when forming an intention to perform the behavior in question.

3. Conceptual framework

This chapter presents three tentative hypotheses; H1, H2, and H3, which are all based on the foundation of previous research regarding green cosmetic consumption. The three hypotheses are visualized through a conceptual model where the hypotheses are combined with the theory.

3.1 Hypotheses

3.1.1 Attitude

It can be seen from the theoretical framework that attitude is an individual's combined view of an attitude object and has an impact on the intention to perform a certain behavior (Ajzen, 1991; Solomon et al., 2019; Mcbride et al., 2020; Armstrong et al., 2015; Fishbein and Ajzen, 1975). Chin et al., (2018), investigates consumers purchasing intentions toward green skincare products in Indonesia as well as Al Mamun et al (2020) have done in Malaysia. In both studies, it is concluded that a positive attitude has a significant positive impact on the intention to purchase green skincare products (Chin et al., 2018; Al Mamun et al, 2020). Similar results were

found by Limbu, Pham, and Nguyen (2022) where a strong direct relationship between consumer attitudes and purchase intention was revealed by analyzing the individual's attitude and motivation to perform the behavior. Another study by Echchad and Ghaith (2022) revealed that there was a significant relationship between the attitude toward green cosmetics and the purchase intention of green cosmetics. Hence, when consumers build a positive attitude toward green cosmetics, they will exhibit a positive intention toward purchase (Echchad and Ghaith, 2022). In another study, by Paul, Mody, and Patel (2016) it was supported that consumers' positive attitudes towards green products showed that they were more likely to express purchase intention. Hence Ajzen's (1991), theory of planned behavior indicates that if one has a positive attitude toward the behavior directly in a positive manner impacts the behavioral intentions. The stronger the positive attitude the more likely the behavioral intention will predict actual behavior performance (Ajzen, 1991). Derived from the presented information the researchers present the following hypothesis.

H1: Attitude has a positive impact on the intention to purchase green cosmetics.

3.1.2 Subjective norm

Derived from the theoretical framework, the concept of subjective norm refers to the perceived social pressure to perform a behavior or not (Ajzen, 1991). For example, in a study conducted by Chin et al., (2018) it was found that subjective norms have a positive effect on consumers' behavioral intentions towards purchasing green skincare products. Strengthening this claim, Park (2000) revealed that individuals' consumption behavior is likely to be affected by what they perceive others expect of them, rather than being influenced by their own beliefs and values. Similar results are found by Zollo et al., (2021), in their study about organic personal care products (PCP), where the results revealed that social reassurance has been proven to be an effective indicator when one is trying to understand consumers attitudes towards PCP and how it can develop into an intention to purchase. Ajzen, (1991), Cialdini and Goldstein, (2004), Park, (2000) and Manning, (2009) altogether support that social pressure from the surrounding environment can influence the intention that ultimately influences behavior. Echchad and Ghaith (2022), contribute to the subject by adding

to the literature that subjective norms are found to be a significant positive influence on purchase intention in the context of green cosmetics. It is found that consumers who want to obey the norm of society opt for purchasing such products (Echchad and Ghaith, 2022). Derived from the presented information the researchers present the following hypothesis.

H2: Subjective norms have a positive impact on the intention to purchase green cosmetics.

3.1.3 Perceived behavioral control

Prior studies have indicated that perceived behavioral control (PBC) is positively influencing purchase intention in various research areas (Limbu, Pham, and Nguyen, 2022; Hsu, Chang, and Yansritakul., 2017; Ghazali et al., 2017). For example, Saleki, Quoquab, and Mohammad (2019), found in their study that perceived behavioral control plays an important role in influencing Malaysian consumers' intention to purchase organic food. As explained by Ajzen (1985), individuals who have the available resources and opportunities, are more likely to hold an intention to perform a certain behavior, therefore the chances of successfully carrying out that behavior become higher. Similar results are found in Kim and Han's (2010), and Kun Shan and Yi Man's (2011) study, where individuals are more likely to have a higher intention to pay for a green hotel if they believe they have the required resources and opportunity to complete the purchase. Hence, stating that PBC is found to be a significant predictor of intention to purchase (Kim and Han, 2010; Kun Shan and Yi Man, 2011). Karatu and Nik Mat (2015) found PBC to be a strong predictor of the intention to purchase green products which also are in line with similar studies (Tan, 2013; Sadati & Mohammed, 2012; Teng, Wu and Liu, 2011). Derived from presented information the researchers present the following hypothesis.

H3: Perceived behavioral control has a positive impact on intention to purchase green cosmetics.

3.2 Conceptual model

The three developed hypotheses, suggesting three relationships with the intention to purchase green cosmetics, have been developed from the conceptual framework. These hypotheses will be subject to hypothesis testing. Analyzing data gathered from items of *attitudes*, *subjective norms*, *perceived behavioral control*, and purchase intention.
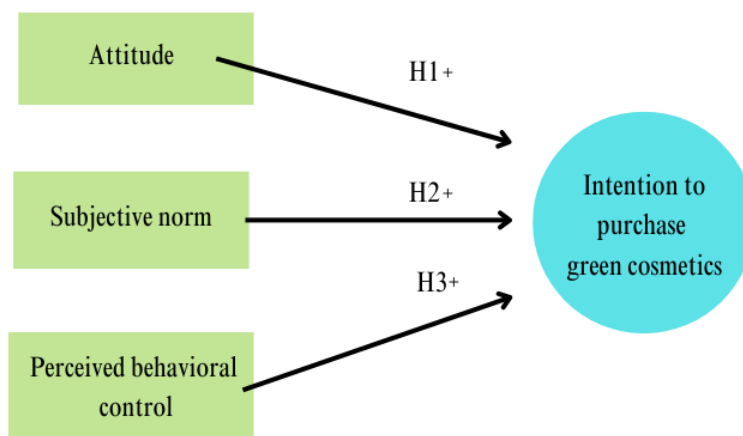
Model 1: Research model

4. Methodology

This chapter presents and justifies the chosen methodology for this study as well as the data collection methods. Furthermore, the design of the questionnaire and sampling methods are presented. The validity and reliability of the study are discussed as well as ethical and societal issues.

4.1 Quantitative research approach

According to Bryman, Bell and Harley (2019), a quantitative approach to research focuses on providing an understanding of reality from information gathered through the use of numerical measurements. Quantitative data is a research method capturing data that can be converted into numerical statistics and hence be analyzed to understand reality (Bryman, Bell and Harley, 2019; Muijs, 2011). Here the focus is on developing and testing hypotheses derived from a theoretical understanding of reality (Bryman, Bell and Harley, 2019).

Furthermore, the quantitative research approach is usually taking the form of a deductive nature (Bryman, Bell and Harley, 2019). A deductive approach implies that the relationship between theory and reality is tested by constructing hypotheses, a suggested explanation of reality, derived from an existing theoretical foundation (Bryman, Bell and Harley, 2011; Popper, 2005). A deductive approach hence attempts to understand reality by viewing it from the perspective of existing theoretical understanding of it, aiming for being as objective as possible when gathering data to explain reality (Popper, 2005). Similarly, Muijs (2010) explains that quantitative studies aim for describing certain phenomena. In this study, the phenomena being attitude, subjective norm and PBCs impact on Intention to purchase green cosmetic products.

This research being of deductive nature moreover, implies that the measurements developed in this study to test hypotheses will be derived from the theoretical foundation that is the theoretical framework. Hence, the theory of the phenomenon of attitudes, subjective norms, PBC, and behavioral intentions. Furthermore, these concepts will be operationalized into items transformed into questions that can serve to measure the phenomenon in reality. The results can therefore be transformed into numerical measurements for statistical analyses. By converting findings into numerical data that can be analyzed as measurements of the studied phenomena (Bryman, Bell and Harley, 2019). By converting theory to numerical measurements through an operationalization the study becomes quantitative and since the measurements are developed from existing theory the study approach is deductive. This connection between quantitative and deductive can be explained further by the connection between quantitative and realist or positivistic views (Popper, 2005). Mujis (2011), explains that quantitative research is more objective and realistic as one attempts to detach one's own subjective opinions from the process of gathering and interpreting data. A quantitative approach can moreover sometimes become positivistic as one is looking for a theory to be confirmed instead of seeking the truth

about reality (Popper, 2005). Meaning that quantitative research uses one theoretical understanding and casts this as a net to capture similar knowledge of the real world (Popper, 2005). In contrast to a more subjective seeking for patterns to develop theory from as done more in qualitative research (Bryman, Bell and Harley, 2019).

Therefore, to stay objective but at the same time be open to changing the view of how the phenomena of TPB are playing out in reality, the researchers will address if the data analysis shows results that speak against the suggested hypotheses. Since the evidence contradicts the theory, it is considered to be information that should be viewed as valuable in grasping reality to the fullest (Popper, 2005). Due to the understanding that the truth about reality is constantly pending for falsification (Popper, 2005). Therefore after hypothesis testing of *H1*, *H2*, and *H3*, the analysis will focus on understanding both if the hypothesis is found to be true or not. In this way, the researchers become more objective and avoid being too positivistic by not only looking for hypothesis confirmation but in addition hypothesis rejection.

4.2 Data collection method

A self-completion questionnaire is an efficient way of collecting data as researchers can in an easy and fast manner reach a large population (Denscombe, 2014). Denscombe (2014) further explained that this is a suitable method enabling capturing data through a quantitative approach by conducting a questionnaire. Supported by Bryman, Bell and Harley (2019) who state that when conducting quantitative research and collecting data, questionnaires are often the main instrument used. This since conducting questionnaires enables researchers to, from theory, develop questions aiming for capturing data regarding items connected to the studied phenomena, further being possible to convert to numerical data used for hypothesis testing (Bryman, Bell and Harley, 2019). Furthermore, according to Bryman, Bell and Harley (2019), the advantage of conducting a questionnaire is that it does not require a lot of investment either in time or capital. To collect data, the researchers decided to design a self-completion questionnaire.

Bryman, Bell, and Harley (2019) moreover state that a self-completed questionnaire allows the respondents to answer the questions by themselves, without being affected by others' opinions that may affect the data. Hence since this study aims at gathering as truthful answers as possible from the respondents about their reasoning this method becomes suitable. Additionally, Online questionnaires allow for approaching a large geographical region (Van Selm and Jankowski, 2006). Therefore, this study targets consumers from all across the country of Sweden. In addition, another benefit of online questionnaires as a method is that it enables the participants the possibility to answer the questions and respond by themselves wherever and whenever they want to (Bryman, Bell and Harley, 2019). Denscombe (2009) adds to the benefits of online questionnaires, by suggesting that online questionnaires are more beneficial than paper questionnaires if one aims at decreasing the non-response rate while studying items. Items derived from the theory of planned behavior are the phenomena researched in this study.

To address the possible issues with this method Adam and Cox (2008) state that questionnaires do not provide the optimal opportunity for respondents to express their opinions and reasoning in depth. However the focus of this study is not on in-depth understanding, but rather gathering data based on developed clear measurements where the need is to find out how people think and feel, more than the question of why. Mann and Stewart (2000) moreover address that another potential issue when conducting online questionnaires is the risk of losing sight of who is responding to the questionnaire. Indicating that the researcher cannot control if respondents provide multiple responses or misrepresent themselves, providing inaccurate responses. Hence, the lack of control over the sample and the inclusion of anonymity can harm the outcome of the data collected (Mann and Stwart, 2000). However, the researchers believe the benefits of using this method for the study purpose surpassed the possible disadvantages. Moreover, the sample selected for this study is not very limited, hence the possibility of someone answering who is not in the sample is smaller compared to studies with a very strictly limited sample. The main issues that could arise in this study regarding untrue answers of who the respondent is would be if one states one has a different income, gender, or age. However, this study focuses on Swedish inhabitants and it is believed there is no reason for the particular study purpose that

one would want to lie about living in Sweden if one does not. The main focus of the study is in addition not to explore the impact of demographic variables, but instead to explain the impact of attitude, subjective norm, and PBC on purchase intention in Sweden. This means that this issue is not believed to have a drastic impact on the study results in the end.

4.3 Data collection instrument

The theoretical framework was used as a foundation for the operationalization. To establish a clear understanding of how to collect and interpret data, connections between theory and the research objective were drawn with the help of indicators and items drawn from the theoretical framework. From these items, it was possible to form questions to deductively gather empirical data that later serves as the basis for analyzing the independent variables attitudes, subjective norms, and PBC together with the dependent variable of intention.

4.3.1 Operationalization table

Theoretical concept	Item number	Description	Component	Item	Measure on the questionnaire	References

Intention	Int_reg1 Int_reg2 Int_reg3 Int_reg4	The stronger behavioral intentions one has, indicate a higher probability of consumers engaging in or performing a certain behavior	Probability to engage	Willingness	"I want to buy green cosmetic products"	(Ajzen, 1991) (Fishbein and Ajzen, 2010) (Fishbein and Ajzen, 1975) (Gibbons., 1998 as cited in Fishbein and Ajzen, 2010, p.42)
				Intention	"I am trying to buy green cosmetic products" "I intend to buy green cosmetic products"	
				Plan	"I plan to buy green cosmetic products"	
Attitude	Att_reg1 Att_reg2 Att_reg3 Att_reg4	An attitude is built upon opinions, beliefs and emotions towards an attitude object, often derived from past experiences	Thought	Positive thought	"I think positively about green cosmetic products"	(Solomon et al., 2019) (Armstrong et al., 2015) (Ajzen, 1991) (Mcbride et al., 2020) (Fishbein and Ajzen, 1975)
			Opinion	Positive opinion	"I have a positive opinion about green cosmetic products"	
			Feeling	Positive feeling	"I have a positive feeling towards green cosmetic products"	
			Belief	Favourable belief	"I believe it is good for me to use green cosmetic products"	

Subjective norm	Sub_reg1 Sub_reg2 Sub_reg3 Sub_reg4	The perceived social pressure to perform or not perform a certain behavior	Perceived social pressure	Social pressure from friends	"I feel there is high pressure from my friends to buy green cosmetic products"	(Ajzen, 1991) (Cialdini and Goldstein, 2004) (Park, 2000) (Nguyen et al.,2019) (Manning, 2009) (Liu, Liu and Mo, 2020) (Peattie, 2010)
				Social pressure from family	"I feel there is high pressure from my family to buy green cosmetic products"	
				Social pressure from peers	"I feel there is high pressure from other people in my surroundings to buy green cosmetic products"	
				Social pressure from media	" I feel there is high pressure from media that i should buy green cosmetic products"	
Perceived behavioral control (PBC)	PBC_reg1 PBC_reg2 PBC_reg3 PBC_reg4	Perceived behavioral control (PBC) describes if one has the resources and opportunities to carry out certain behaviors and if one believes the decision is in one's own hands	Motivational factors	Knowledge	"If I would want to buy green cosmetic products I know how i could do this"	(Ajzen, 1991) (Kidwell and Jewell, 2010) (Ajzen and Fishbein, 2000) (Cheng and Huang, 2013)
				Money	"I feel I have the money to buy green cosmetic products"	
				Time	"I feel I have the time to buy green cosmetic products"	
				Own decision	"I feel I can choose by myself if i want to buy green cosmetic products"	

Table 1. Operationalization table

4.2.3 Questionnaire design

Wright (2017), explains that when sending out an online survey it is important to add contact information and information about specific institutions if the research is done through for example university studies. By adding this information one adds more credibility to the survey and the respondents are in addition able to start discussion with the researchers. Providing possible input that could improve the study or the results as well as increase motivation for people to participate in the study (Wright, 2017). Due to this being important and creating more credibility, the online questionnaire has contact information the first thing, in the beginning, to start communicating credibility early to the respondents. Galesic et al (2009) explain that it is important to ensure the questionnaire is easy to follow along and to get reliable answers the most difficult information and questions should be placed early in the questionnaire. Due to the respondents being more motivated and alert in the beginning (Galesic et al, 2009). Therefore the information regarding the study purpose was kept very short and put early as an ingress at the beginning of the survey. Moreover while designing the questionnaire, it was important that the structure would be simple and that the information and guidance were highlighted clearly for the respondent to find it *(See appendix 1 for the visual design of the questionnaire)*.

Galesic et al (2009), address that respondents are more likely to stay motivated to answer and answer more truthfully if feeling the questionnaire will not take a too long time, hence avoiding respondent fatigue. Therefore and due to the constructed questionnaire not aiming for capturing in-depth details but rather more respondents and clear answers, the response time estimated for this data collection method should be and is possible to keep concise. In regards to not losing respondents, Denscombe (2009) has further found that one can decrease the non-response rate in questionnaire item studies by having fixed-answer questions rather than open-ended questions. In addition, it is suggested that displaying a questionnaire online can decrease the non-response rate, compared to providing it on paper (Denscombe, 2009). Therefore constructing a questionnaire with fixed-answer questions and displaying this online is beneficial for minimizing the non-response rate in the data collection process of this

research. In regards to the purpose of the data collection, the limitations and the applicability of an online self-completion questionnaire are hence suitable for this research purpose.

Additionally, the questionnaire will be constructed in English to ensure validity in the answers measuring what is intended. The information gathered about the items and statements are derived from research conducted in English, therefore for the researchers to avoid misinterpretation of the theoretical foundation the questionnaire is not translated into Swedish. The researchers argue that English is the most suitable language even in a Swedish context. This is due to the sample *(See 4.4)* according to Airey (2004) being the most bilingual and multilingual population in Europe. Furthermore, Sweden is ranked the seventh-best English-speaking society in the world in 2023 (Education First, 2022). In addition around 75% of the adult population in Sweden can hold a normal conversation using the language of English (Airey, 2004). Hence the issue of the sample not understanding or possibly misinterpreting the questionnaire information and statements is understood as very minimal compared to the issue of validity if one would translate the items and statements to Swedish possibly losing validity by the intended meaning getting lost in translation.

4.2.4 Pre-test of questionnaire

Denscombe (2014), argues that it is of essential importance to test a research method in advance to ensure it functions effectively in practice. Before accumulating the outcome of a questionnaire, Bryman, Bell and Harley (2019) state similarly that it could be of significant importance to pretest the questionnaire since a pretest enables the researchers to collect feedback from a small group of individuals that are part of the sample in the research population. Thus, ensures that the questionnaire and the questions being asked are being comprehended accurately, hence avoiding potential mistakes or limitations that could affect the outcome of the questionnaire and data collected (Bryman, Bell and Harley, 2019). Muijis (2011) further mentions that a questionnaire should be kept clear and simple for the respondent to comprehend what is being asked. Unclear questions will result in unclear answers and responses, hence affecting the results negatively (Mujis, 2011).

Additionally, Bryman, Bell and Harley (2019) state that these errors can miscommunicate the purpose of the questionnaire, hence, damaging the reliability of the study and potentially causing skewness to the outcome of the data. Therefore, when conducting a questionnaire it is essential to phrase questions in a manner that the respondents can understand and comprehend (Mujis, 2011). The researcher can therefore avoid what could have been otherwise damaging problems for the research (Denscombe, 2014).

The pretest in this study was sent out online, to a small group of 12 people part of the research population. The pre-test was sent out to ensure the questionnaire was possible to open and fill in, giving the test sample a similar opportunity as the supposed sample would have. The respondents could read through the information and the questions provided calmly. The test sample was later in contact with the researchers over the telephone during the self-compilation of the questionnaires to explain how the information was interpreted and for the researchers to be able to ask open-ended questions to understand if the respondents had understood and comprehended all information and questions as planned. This was done since, according to Bryman, Bell and Harley (2019), asking these open-ended questions is important while having self-completion questionnaires to enable respondents to give detailed feedback and discuss their interpretation in depth. Helping the researchers ensure the questionnaire is testing what is aimed to be tested by providing insight on how to make the questionnaire easily understood (Bryman, Bell and Harley, 2019).

From this test, the researchers were provided with valuable insights on modifications required to ensure the questions and the aim would be clearly understood and comprehended following the purpose of collecting the data. The modifications were thereafter taken into consideration, to ensure the questionnaire was as understandable as possible before sending out the finalized version. In the pretest, spelling mistakes were noticed as well as suggestions to clarify the explanations of what green cosmetic products entail and how the questions were formulated. From the feedback, the researchers decided to change the wording of green cosmetic products to green personal care products in the questionnaire. The pretest participants, mostly the male participants, stated that even though cosmetic products were explained to be all

hygiene products, it was interpreted as being only makeup products if it said cosmetics. In addition, the wording of the items tested for was changed to a more informal simple language in the questionnaire after understanding that these words otherwise would be misunderstood by the test respondents as something else that aimed to ask for. Moreover, a word that was found to be forgotten as having been read by the respondents was the word green. Hence this word was changed into the bold style and tested again on new respondents who found they remembered these words specifically due to being written in bold style. An important word to remember for filling in the questions regarding specifically green cosmetics and not only cosmetics.

4.4 Sampling method

When conducting studies in the field of social sciences, Denscombe (2014) explains that the sample size is usually smaller, ranging from 30 to 250 respondents. Non-probability sampling is therefore a preferable method due to resource limitations (Denscombe, 2014). The researchers found it crucial to select a sampling method that is both efficient and effective, hence, non-probability sampling was chosen as the sampling method. Non-probability sampling allows researchers to achieve a sample that is convenient as well as considering limitations of resources such as time and money (Denscombe, 2014). Due to limited time and resources, this method was argued to be the most convenient sampling method according to the researchers as this study is conducted only over three months, consisting of no budgetary resources. Since this research is a thesis on a bachelor's level. Therefore, a non-probability sample allows the researchers to depict the respondents as suitable for the study purpose with larger control than in a random sample (Bryman, Bell, and Harley, 2019). Hence enabling the researchers to flexibly and conveniently reach the target sample in a short period of time with no monetary resources. Thus, still reaching the desired target demographic, Swedish consumers of Gen Z and Millenials efficiently.

Within non-probability sampling, convenience sampling was chosen as a way of reaching the sample. Convenience sampling is a method of sampling that allows the researchers to reach an accessible sample. As the questionnaire was sent out on

various online platforms, it allowed the researchers to both share it on their profiles, reaching friends, family, and acquaintances of the researchers. Considering that the researchers share demographics with the desired sample this method improves accessibility to reach these consumers. Since the majority of the researchers' peers could be included in the sample. Hence convenience sampling led the researchers to another way of sampling, snowball sampling. As Bryman, Bell and Harley (2019) explain, snowball sampling is when friends, family and acquaintances spread the questionnaire to other people in their surroundings by commenting, liking, and sharing the questionnaire on their profiles with their social networks, which progresses into a snowball effect. Denscombe (2014) also argues that snowball sampling is an effective technique for building a reasonable-sized sample, especially when used in a small-scale research project. Hence, the researcher aims to get the accuracy that is good enough for the purpose of the research with the resources available.

4.4.2 Sampling Frame

The sample frame is an essential component in research methodology when deciding upon a representative sample from a target population (Bryman, Bell and Harley, 2019). Therefore, when conducting research, one needs to consider and specify the population that is being studied and which individuals to include. In this study, the population is decided to be individuals who live in Sweden since the study aims at providing insight into the Swedish consumer's behavior concerning green cosmetic consumption. Moreover, due to the researcher having limited time and resources to capture all of Sweden's population in the sample, a choice has been made to focus on one of, according to Fromm (2022) a consumer group with growing buying power Generation Z. These moreover, being very similar in having large and increasing buying power as Millenials (Stelmaszczyk, 2022). Both Generation Z and Millenials

are very critical and share values of holistic wellness, authenticity, sustainability, and health as well as this target group account for a very large proportion of the Swedish consumer population (Stelmaszczyk, 2022). Hence by understanding these consumers marketers will be provided with useful information for staying attractive in the market since one would know more about a highly valuable consumer group important to win over in the market to stay competitive.

The age of Generation Z and Millenials used in this study is derived from an approximation of several definitions of the age of these generations, differing within a few years. The age span used in this study for Generation Z and Millenials combined will be people between the age of 15-45. This is due to an understanding of Millennials being born between the 1980s and mid-1990s and Gen Z between the mid-1990s and approximately around 2010-2015. (Ottman, 2011; Stelmaszczyk, 2022: Worldline, n.d.) Here one includes people born in the '80s, 90's, and early 2000s (Svenskarna och Internet, 2022). However, people under 18, due to this age being the legal age in Sweden will be the lower limit of the sample frame in terms of age. Due to ethical considerations of not wanting to research minors. Therefore the sample used will be Swedes aged 18-45 only.

While researching this group the aim is to be able to generalize findings from the sample to the population studied (Bryman, Bell and Harley, 2019; Popper, 2005). Hence, including different demographics of the sample populations is important to mirror the population differences better, by including different age spans, genders, and income levels. Since, according to Bryman, Bell and Harley (2019) researchers want to have a sample that is as heterogeneous as possible to be able to capture the differences in people's views and opinions. People's opinions and views are strongly affected by their demographic characteristics (Bryman, Bell and Harley, 2019; Armstrong et al, 2015). Therefore this study has included demographic characteristics on age, gender, and income as control variables ensuring that the answers are not based on a sample that is too homogeneous. In addition, these variables have been found to possibly affect consumers' purchase intentions, which is studied in this paper (Hsu, Chang and Yansritakul, 2017: Limbu, Pham, and Nguyen, 2022: Setyawan et al., 2018). Keeping this in mind, researchers can avoid sample biases (Denscombe,

2014). Inclusion of more demographics can increase the possibility for generalization from the sample to the larger population, aiming at decreasing bias from over-representing one group over another group in the sample (Bryman, Bell, and Harley, 2019)

4.4.3 Sample size

Considering the sample size is crucial for the researchers to obtain results that are relevant and significant for the study. According to Bryman, Bell, and Harley (2019), there is no definite relevant sample size for studies within quantitative research to define what sample size is sufficient enough. There is not a single definition of how great the sample size is supposed to be. However, the greater the sample size, the greater the precision of the data is going to be, allowing for a diverse sample (Bryman, Bel, and Harley, 2019). However, the sample size should not be any less than 30 respondents when conducting a small-scale questionnaire (Denscombe, 2014). The sample size is, therefore, based on the resources concerning time and money to the researchers (Bryman, Bell and Harley, 2019). Denscombe (2014) explains that scholars who conduct project research with an academic degree are usually not able to ensure a large sample, considering limitations in time and resources. A smaller sample

would be possible to use compared to large-scale studies (Denscombe, 2014). Providing justification for using a smaller sample size in this thesis.

Moreover, Green (1991) presents an overview of the method that can be used to calculate the sample size within a regression. Suggesting that $N > 50 + 8 * M$. Where N is explained to be the number of the minimum sample size, whereas M is explained to be the number of independent variables (Green, 1991).

$$N > 50 + 8 * 3$$
$$\rightarrow$$
$$N > 74$$

The calculation provides the researchers with the minimum number of respondents in order to reach a sufficient sample size. Thus, by implementing the independent variables in the calculation, the researchers end up with a minimum number of 74 respondents. However, the aim for the researchers would be to reach more than this, by implementing Bryman, Bell and Harleys (2019) argumentation for a greater sample size provides better results for accuracy.

4.5 Implementation of questionnaires

The questionnaire was sent out online, on social media platforms such as Linkedin, Facebook, and Instagram, and was constructed with the use of Google Forms. Google Forms enables the construction of a self-completion questionnaire for gathering data aligning with the described design choices (see 4.2.3). Moreover, the reasoning behind the chosen online platforms is that the researchers aim for a heterogeneous sample with varying demographics, and on these platforms, the researchers can reach a broad and varied population *(see 4.4)*. The platforms are easy to use for managing and sharing the questionnaire in a fast manner and reaching a large geographical area.

Additionally, Swedish consumers can easily be reached on social media, since 85% of the Swedish population uses social media daily (Svenskarna och Internet, 2022). The

sample in this study is Gen Z and Millennials who can easily be reached on these chosen social media platforms. According to Svenskarna och Internet (2022) among people born in the 90s, 72% use Instagram daily, and 70% use Facebook daily as well as 63% of people born in the 2000s using Instagram daily. Hence suitable platforms for reaching the majority of Gen Z consumers. Moreover among people born in the 80s, millennials, 70% use Facebook (Svenskarna och Internet, 2022) Therefore the researchers believe these platforms to be suitable to research the target sample and it can increase the snowball sampling efficiency since one can easily spread the questionnaire further to friends and family as well as others on these platforms. In this way attempting to gather data from a sample represents more differences among the respondents. Hence providing better opportunities for generalizing the results to the population of Swedish Gen Z and Millennial consumers.

4.6 Data analysis

The data analysis will be carried out by using the statistical software program, IBM SPSS Statistics, which is an easy program to use for quantitative research (Bryman, Bell and Harley, 2019). The researcher will be using IBM SPSS for implementing the data gathered from the questionnaire's results as well as using it for every part of the analysis.

4.6.1 Data entry, cleaning and coding

According to Bryman, Bell and Harley (2019) when data is gathered the first steps are to understand and clean it from irrelevant data that is not possible to use for the researchers. The data was therefore transferred from google forms to Excel to clean it

before transferring it further to the statistical program IBM SPSS. Here the researchers could clean out the responses that included answers showing the respondent did not belong to the selected target sample of the study. Hence answers from people under 18, over 45 (not gen z and millennials), and people not living in Sweden were taken away from the data set. Bryman, Bell and Harley (2019) further address that one needs to consider if respondents have not answered all questions since this would affect the answers. Therefore if the respondents had not answered all questions it was decided that these responses would be taken away. If the sample size would not have been enough adjustments could according to Bryman, Bell and Harley (2019) be done. Where only one response to a question would be missing the respondents could replace this answer with the mean response in the data set on this question (Bryman, Bell and Harley, 2019). However, due to the researchers knowing the needed minimal sample size would be 74 and the data set is 101 after cleaning it due to wrong sample demographics, the researchers instead chose to completely erase these responses due to being incomplete, ending up with a final data set of 97 responses.

After cleaning the data, the dataset was moved to SPSS where the variables measuring each concept were recorded to fit the program and enable easier data analysis and interpretation. Bryman, Bell and Harley (2019) explain that while using questionnaires for data collection this simplifies the process of analyzing the data. This since the responses are already coded by connecting questions to specific item measurements asked about (Bryman, Bell and Harley, 2019). Here the measurements of each independent variable were coded. According to Bryman, Bell and Harley (2019), an important aspect to simplify and enable data analysis is the statistical program SPSS. Therefore the demographics of age, gender, and income level were coded using numeric values to make these possible to include in the regression analysis in the end as numerical values instead of described in words.

Here only the answer alternatives found chosen in the responses were kept and coded in the final data set. E.g. gender included the answer possibilities of "others" and "prefer not to say" but all respondents answered female or male, therefore being the only variables kept and coded in the final data set. Females were coded as 1 and Males as 0. Moreover, the ages in the data set under 18 and over 45 were deleted due to being outside the sample range. The remaining age spans were then coded (18-20)=1, (21-25)=2, (26-30)=3, (31-35)=4, (35-40)=5, (41-45)=6. The income level was coded as follows: "No income"=0, "Low income"=1, "Middle income"=3, "High income"=4. Moreover, the measurements of the three independent and the one dependent variable were coded with numeric values to enable a later summarization of all measurements of one variable into a summarized score of the variable, for example, the total score of attitude for respondents 1, 2, 3, and so forth. Therefore the independent variable attitude was changed to Att_reg1, Att_reg2, Att_reg3 Att_reg4, Subjective norm to Sub_reg1, Sub_reg2; Sub_reg3, Sub_reg4, PBC to PBC_reg1, PBC_reg2, PBC_reg3, PBC_reg4 and the dependent variable measurements for intention to Int_reg1, Int_reg2, Int_reg3, Int_reg4.

4.6.2 Descriptive statistics

According to Fisher and Marshall (2009), descriptive statistics describes the numerical procedure or graphical technique used to summarize the gathered data of a given sample, by focusing on the main features and characteristics. Additionally, understanding the data's basic properties enables researchers to approach quantitative numbers with an easier understanding of how to interpret the data (Bryman, Bell and Harley, 2019). Descriptive statistics aims for describing the midpoints of a spread of scores, and the mean and hence provide an understanding of if the values are following normal distribution or if one needs to be careful in interpretation if the data is heavily deviating from the mean (Bryman, Bell and Harley, 2019). The mean is a

measure of central tendency which indicates the common distribution within the data (Fisher and Marshall, 2019).

Moreover, it is essential to understand the levels of measurements since certain statistical techniques solely work with specific measurements. Hence, when deciding upon which statistical techniques to use for a data set, the category of measurement is the initial step to undertake (Fish and Marshall, 2009). As the questionnaire of this research only contained close-ended questions, the category of measurements was either ordinal or nominal. This allows the researcher to collect both data that can be ranked (ordinal) and categorical data that cannot be ranked (Nominal). E.g if the question asks the gender of the respondent, the measurement should be nominal compared to when the question is based on, for example, income, which can be ranked in order of better to worse, low to high, and weak to strong intensity (Ordinal). Both measurement techniques measure the frequency of distribution, thus suitable for understanding the data as the researchers want to understand the mean of the variables. Ordinal measurements refer to the score within categories when the variables can not be measured through numbers (Fish and Marshall, 2009). As this study aims to measure how high the impact of attitude, subjective norm, and PBC is, a 7-point Likert scale had to be implemented to be able to measure the variable's intensity, to then understand possible impacts. A Likert scale is a common rating technique typically used in questionnaires, rating the intensity of agreement or

disagreement of a statement (Bryman, Bell and Harley, 2019). The 7-point Likert scale provides the respondents with seven response options, ranging from 1 to 7, 1 referring to "strongly disagree", 4 to "moderate level of agreement" whereas 7 indicates that the respondent "strongly agrees" to the statement (Craig, Moore and McCabe, 2009). Number 2 and 3 shows a lower intensity in agreement compared to number 5 and 6 indicating the respondent is agreeing more with the statement. The 7-point Likert scale allows the researchers to transfer collected data into the quantitative analysis to further understand the variables (Craig, Moore and McCabe, 2009).

When the data is organized, additionally the distribution of the data has to be understood. Hence, the measurement of dispersions is essential to explain how scattered the data is around the mean and possible extreme values (Lind, Marchal and Wathen, 2019). In regards to this, the researchers must understand if the data contains any outliers, the measurement of standard deviation provides information on the dispersion, and how spread out the data is from the mean. A higher standard deviation indicates a greater dispersion of the data while a lower standard deviation value indicates that the data are closer to the mean, hence less scattered (Craig, Moore and McCabe, 2009). Additionally, to understand the nature of the dispersion, skewness, and kurtosis are two further measurements providing insight into outliers in the data set and the extreme values (Craig, Moore and McCabe, 2009: Taylor, 2023).

Hair et al (2010), explain that for a normal distribution, being the aim to achieve the most accuracy in data analysis, the value for skewness should end up being 0 and kurtosis 3. Skewness explains how far from the mean value the outliers in the data are and if these are lower or higher than the mean value. Therefore if skewness has a negative value under 0 the curve is not normally distributed and is skewed to the left. If the skewness has a positive value more than 0 it is skewed to the right. If the skewness is 0 the distribution is normal (Craig, Moore and McCabe, 2009: Taylor, 2023). According to Lind, Marchal and Wathen (2019), skewness ranges between the values of -3 for negative skewness and 3 for positive skewness. The closer to 0 the value is, the less the deviation from the mean value. On the other hand the closer to 3

the more skewed the mean (Lind, Marchal and Wathen, 2019). The best value of skewness to aim for is within -1 to 1, one could accept a value between -2 to 2 depending on the research, considering the nature of the research and including other criteria for validity and reliability (Hair et al, 2010).

Kurtosis moreover according to (Field, 2009) is a measurement of extreme values too but instead shows extreme in terms of frequency, hence deciding on the curve being more or less flat. A high kurtosis value indicates a high peak and a low kurtosis value indicates a more flat curve. The kurtosis should be as close to a value of 3 as possible to display a normal distribution (Field, 2009). According to Craig, Moore and

McCabe (2009), outliers arise when respondents' answers are dissimilar to the majority of other answers. Therefore, to strive for a normal distribution, the outliers can be excluded from the final data set or be addressed while ensuring that the data analysis is reliable and valid (Craig, Moore and McCabe, 2009). While studying social phenomena it is in regards to this argued by Astivia (2020) that the interpretation of skewness and kurtosis values can differ. One can accept more dispersion in the data and aim for increasing validity and repeatability of the study in addition to being transparent with the research process (Bryman, Bell and Harley, 2019). In this way with a not-so-normal distribution one can still use the data of one by helping others understand how the measurements were built and how one can study the same thing in the future (Astivia, 2020).

4.6.3 Correlation analysis

The correlation analysis, according to Field (2009) assesses whether two or more quantitative variables are correlated to each other. Measuring the strength of a linear relationship, hence, the correlation analysis helps the researchers see if there is an association between the variables (Field, 2009). The correlation analysis indicates the strength of the relationship as the correlation is always a number between -1 and +1 (Craig, Moore and McCabe, 2009). Correlation values with a value of 0 indicate no correlation, a value closer to 1 indicates that the relationship between the studied variables is weak, and a value closer to 1 positive or negative indicates a strong correlation between variables. Hence, the more the number moves away from 0, towards either -1 or +1 the stronger the relationship is expected to be, positively or negatively (Craig, Moore, and McCabe, 2009). To analyze the relationship between the variables, the measurement is conducted by the Pearson correlation coefficient (Bryman, Bell and Halrey, 2019). Hence, the researchers conducted a correlation analysis to be able to interpret if the impacts of independent variables on dependent variables in addition would be affected by possible independent variable interrelations. To ensure the findings in the multiple regression analysis are measuring independent effects on dependent variables instead of being affected by alternative correlations between the independent variables.

4.6.3 Multiple Regression analysis

Multiple regression is a statistical analytical technique carried out when examining the relationship between a set of independent variables, at least two, and a single dependent variable (Afifi et al., 2021). The multiple regression analysis, according to Moore et al (2011), aims at explaining the impact that the independent variables have on the dependent variable. In this way, the focus is on analyzing the explanatory power of the independent variables (Moore et al, 2011). Therefore by using this method for this study, it is possible to measure and analyze the impact of the independent variables' *attitude, subjective norm*, and *PBC* on the dependent variable of *intention*. Moreover, Moore et al (2011) explain that the linearity of the effects is measured, explaining if the relationship is linear and how strong it is. Meaning that there is a significant impact from independent to dependent variables that can be displayed as a regression line in a graph (Moore et al, 2011). For three independent variables Lind, Marchal, and Wathen (2019), explains that the relationship between the variables is calculated with the equation of $Y = a + B1 \times X1 + B2 \times X2 + B3 \times X3$, where the numbers are the hypotheses variables, "B" explains the change in "Y" after one unit change in "X". The variable "a" refers to the intercept (where X is 0). Analyzing the values provided by running a multiple linear regression in SPSS, in addition, the researchers will find if there is a significant impact and if so the coefficient describes a positive or negative impact (Lind, Marchal and Wathen, 2019).

To determine if the hypotheses *H1, H2, and H3* will be accepted or rejected the researchers have to look if it is possible to accept the null hypotheses or not. Popper (2005), explains that in deductive reasoning one can otherwise end up being too positivistic when only looking for confirmation of previous findings (Popper, 2005). Testing if the hypotheses are accepted the null hypothesis needs to be rejected. To test this one must first understand if the test is significant. Lind, Marchal, and Wathen (2019), address that the P-value is testing for the probability of the null hypothesis to occur and is commonly used due to assessing a normal distribution level of significance, that is at 5% for a confidence interval of 95%. Hence the P-value must

be at least 0.05 for the null hypothesis to be accepted and the alternative hypothesis to be rejected. If the P-value on the other hand is less than 0.05 the probability of the relationship in the null hypotheses to occur is not large enough to accept it. In this way, a P-value under 0.05 indicates that the relationship found in the regression is likely to happen. If the Sig. (P-value) is significant on a more precise significance level of a lower P-value than 0.05 (*), eg 0.01(**) and 0.001(***), it indicates that the significance found is stronger, and the probability for the null hypothesis to occur even lower (Lind, Marchal and Wathen, 2019).

When one has analyzed if the test is significant, explaining if the hypothesized relationship is probable to occur one will then look at the standardized B value, being the coefficient for the linear impact (Lind, Marchal, and Wathen, 2019). This value is the coefficient displaying the impact and if the impact is positive or negative. If the B value is positive the impact is positive and a negative B value means a negative impact. B-value that is 0 means, just like acceptance of the null hypothesis, that there is no impact and the hypothesis of impact is hence rejected (Lind, Marchal, and Wathen, 2019). To reject the null hypotheses in the multiple linear regression of this research and instead accept the hypotheses the P-value must therefore in the "All Model", including the impact of all independent variables, be lower than 0.05 and have a positive B value due to the hypotheses indication for a positive impact on the dependent variable.

In a multiple linear regression (Lind, Marchal, and Wathen, 2019). further, emphasize how not only the P-value determines significance. While studying several hypotheses with different independent variables one must in addition analyze the significance of the whole model, including all hypotheses by using the F-statistic. This F-value determines how good the whole model is. In addition to the F statistic one evaluates the adjusted R2 since this displays the variance in the proportion of variance in the predictors. Hence the higher the F-value and the adjusted R2 the better the model is in significance and fit for explaining the relationships researched (Lind, Marchal, and Wathen, 2019).

4.7 Research quality

It is essential that the researchers are transparent and open about the research approach and that measurements are taken into account to conduct a scientific study of quality. Research quality within a quantitative study, according to Denscombe (2014) refers to ensuring that the implemented methods are valid by producing accurate and consistent data. Furthermore, Bryman, Bell and Harley (2019) emphasize that two criteria enabling researchers to achieve results of better quality are reliability and validity. Thus, by ensuring the data gathered is valid as well as considering the measurement tools as reliable (Denscombe, 2014). Considering both criteria, the researchers can improve the quality of the outcome of the study by implementing measurement techniques that allow the researchers to gain accurate and dependable research results and hence more credible results and contributions (Bryman, Bell and Harley, 2019). Keeping this in mind, the researcher can increase the credibility of the study by not only focusing on measurement and information quality but in addition by being transparent and open about the research approach as well as addressing ethical and societal considerations (Denscombe, 2014).

4.7.1 Validity

Validity refers to the extent to which the measurements accurately capture the concepts that it intends to measure (Bryman; Bell and Harley, 2019). Therefore, when conducting a research of quantitative nature, guaranteeing validity involves the process of using appropriate measurement tools as well as gathering and collecting data that represents the phenomenon under investigation (Bryman, Bell and Harley, 2019). Therefore in this study, the researcher must be critical when assessing the information gathered for the theoretical and conceptual framework and interpret this in a way that ensures the theoretical concepts of attitude, subjective norm, PBC, and

intention are studied accurately. Lind, Marchal, and Wathen (2019) show that the correct way in terms of validity means that how one creates measurements needs to capture the phenomena studied truthfully, mirroring the phenomena in real life (Lind, Marchal, and Wathen, 2019).

Validity according to Denscombe (2014) refers to the accuracy and precision of the data, usually concerning quantitative research. When evaluating the measurement validity of a study Bryman, Bell, and Harley (2019) explain that the first factor is face validity. Referring to if the measurements are measuring the concept intended to be measured (Bryman Bell and Harley, 2019). In this study, the researchers have been very critical and conscious while developing the measures. These have been based on what has been measured in regards to TPB in previous research and the measurements have therefore been taken from an understanding of the theoretical framework. Here items were derived to capture what each concept is in detail and the questions were formed after these items, as seen in the operationalization (4.2.1). Before gathering data a pre-test was conducted to ensure that the questions used as measurements would be interpreted by the respondents in a way that would help them provide answers directly aligning with what was intended to be measured. Hence the researchers are confident that the measurements can capture real-life phenomena truthfully.

Moreover, internal validity has been taken into account for this research. This is due to Bryman, Bell, and Harley (2019) explaining that internal validity for quantitative research is important. Face validity refers to e.g. if there is a relationship between independent and dependent variables and if there could be other potential relationships of impacts behind the outcomes. Here the researchers have while analyzing the data taken into account how significant the found relationships are and, if there is any possible collinearity between the independent variables that could affect the impact on the dependent variable. The significance of the relationships is addressed in Chapter 4.5.3 by several measures. Moreover, handling possible

collinearity is addressed in Chapter 5.3.2. In this chapter, further tests of possible other reasons for impacts are discussed. The chosen hypotheses are in addition derived from the understanding of previous research in the field of social sciences and consumer behavior, providing a solid base for how these relationships could occur. Hence aiming for more reassurance that relationships between concepts and variables are addressed in accordance with reality in the best way possible for his study.

In addition to the internal validity, even if things are measured with correct measurements, the way these are interpreted and displayed in the discussion and conclusions are of equal importance to ensure the validity of the research (Denscombe, 2014). External validity refers to the generalizability of the study findings to a broader context or population. Implying that for conclusions to be valid these can not say that the results are possible to be generalized from sample to population or other contexts if these are not (Denscombe, 2014). Therefore the researchers have taken into account that the demographics of the sample should represent the population to which the results aim to be generalized to. In addition, if errors in the data or the measurements are found these are included in the display and interpretation of the study result and findings. In the conclusion and the future implications the researchers hence will discuss how the results should be interpreted and how these could be generalized to address what has been measured. The study can only be valid if there is no bias or subjective interpretation in the result and discussions that angles the information found. If the study fails to measure or analyze

what is intended this will be added as important information to not mislead the reader of this thesis. Hence external validity can be improved.

Variance inflation factor (VIF) is a statistical analysis that shows if the independent variables have multicollinearity between each other or not (field, 2009). If the value of VIF for all independent variables of less than 1 = no collinearity, A value between 1 and 5 is considered moderate collinearity, however lower values indicate no severe collinearity affecting the regression results (Daoud, 2017). Hence with a low value of

VIF, the independent variables are more likely to accurately measure the concept intended to be measured (Daoud, 2017).

4.7.2 Reliability

As Bryman, Bell, and Harley (2019) explain, reliability is concerned with ensuring that the study's measures could be consistently used for understanding reality. The measurement should essentially if being evaluated, remain consistent and stable over an extended period of time. E.g. if the study is being reproduced. By using the measurements and the described method, one should be able to replicate the study with similar results. Hence, if the results where the research is conducted on two different occasions, with the same sample, and if the measure is stable, researchers would expect to find a high correlation between Obs1 and Obs2 (Bryman, Bell and Harley, 2019). Therefore, the researchers of this study have gathered the theoretical and empirical foundation through a literature review. With a deductive approach conducting the research from the already understood and stable theoretical foundation of TPB, green cosmetic consumption, and consumer behavior. Ensuring that the measurements used have been found stable and reliable in previous research. In addition, these are not modified in a way that changes results to not be able to replicate in future research. However, modifications are done but if so explained and justified for the reader to understand and replicate the modifications. The overall aim is to create measurements that can not only be used in this study but rather are stable and reliable in other studies.

Adding to the reliability researchers need to address if the measurements together increase the likeness of measuring research phenomena together. Here internal reliability addresses the importance of research that includes multiple-indicator measures and the relevance of coherency between variables (Bryman, Bell and Harley, 2019). Multiple-item measures essentially form an overall score, therefore if the indicators of the measures do not relate to the same concept, the items will lack coherency. Therefore, all indicators must be related to each other to improve reliability. In this research the concepts of attitude, subjective norm, PBC, and

intention have been broken down in the theoretical framework, displaying details that together explain the concept. From this theory, four different measures based on items of the concept were used together to measure the total score of the concept. Hence attempting to ensure the items measured together provides a more accurate measurement of the concept as a whole. E.g the total score of attitude was measured using thought, opinion, feeling, and belief as derived from previous research on attitudes.

Moreover, to test internal reliability, the most common approach by researchers is the statistical measure of Cronbach's Alpha (Bryman, Bell and Harley, 2019). The indicators are split into half, thereafter the degree of correlation between scores on the two halves will be calculated through a coefficient of a value that varies between 0 and 1. If the value is 0 it indicates that there is no correlation and no internal consistency of the measures. If the value is 1 there is a perfect correlation indicating complete internal consistency. An internal consistency from 0.7 and above is considered efficient, however, it is up to the researchers to decide how to interpret these values. One can hence accept a lower level depending on the context and scope of the research (Bryman, Bell and Harley, 2019). In studies conducted with a lower number of items, one can accept lower values of Cronbach's Alpha and still imply that there is an acceptable internal reliability of the measures. Here a level of 5 and above is still considered to be acceptable (Ekolu and Quainoo, 2017).

In regards to internal reliability, the researchers of this study explained the three independent variables within the theoretical framework and derived indicators involved within the literature of the concepts. Therefore, the researchers had to make sure that the measurements within the questionnaire were related to each other to ensure internal reliability between the items. In chapter *5.3.1 Testing Reliability: Cronbach's Alpha,* the researchers will present the results of applying Cronbach's Alpha.

4.8 Ethical and societal issues

4.8.1 Ethical issues

According to Bryman, Bell and Harley (2019), researchers have a responsibility when researching to ensure that ethical risks are minimized. Researchers need to be aware of ethical issues throughout the whole research process, hence, research ethics is a fundamental feature of all great research (Denscombe, 2014). According to Bryman, Bell and Harley (2019), there are four main ethical starting points to consider when conducting research: avoiding harm to participants, lack of informed consent, invasion of privacy, or whether deception is involved.

To avoid harming participants the aim is to ensure that participating in the research won't involve any physical or psychological harm (Denscombe, 2014). This refers to not exposing the participants to unnecessary stress, intentionally lowering their self-esteem, or harming the participants' opportunities for future employment (Bryman, Bell and Harley, 2019). Therefore when studying green consumer behavior one needs to address that this topic includes making participants aware of one's views and actions concerning green consumption, which could affect the respondents. This is important to note since consumers regularly connect their consumption patterns and view of their consumption directly to their view of themselves and other perceptions of who they are (European Parliament, 2020).

Therefore it has been important for the researcher to design questions and display research findings in a way that will not make respondents feel that their opinions and reasoning are not valid or are wrong. Every participant must feel comfortable after taking part in the questionnaire, that their attitudes towards green products are not considered more or less correct. Respondents should be able to express what they think, feel, and do however they like concerning green cosmetic consumption without being judged for their response. This is never the intention with conducting this study.

Since the researchers gather data based on individuals' experiences, thoughts, and views, several precautions were made. As Denscombe (2014) emphasizes, the data collected should avoid disclosing the identities of the participants of the research,

ensuring anonymity, and keeping specific answers confidential and for research purposes only (Denscombe, 2014). This is due to the researchers gathering data through conducting a questionnaire requiring collecting data based upon human involvement. The precautions were implemented to make sure the participants were guaranteed to be completely anonymous by not enabling the participants to fill in their names, contact details, or any other personal information that could potentially reveal the identity of the respondetet. In addition, no information on email addresses was saved from filling in the questionnaire in google forms. Making sure the respondents were guaranteed anonymity in one's answers during the research and while using the material. These precautions were taken to protect the participants taking part in the research. Moreover, the respondents were provided with the information needed to by themselves make an informed decision, meaning that the questionnaire was voluntarily conducted, leaving the respondents to decide whether to participate in the study or not.

4.8.2 Societal issues

In conducting research the societal impact that the study can have must be considered (Bryman, Bell and Harley, 2019). Therefore the researchers conducting this thesis have taken into consideration how the results and display of the findings will affect people, without being included in the research process. The results will therefore be presented with caution to ensure the knowledge this thesis provides will be understood clearly and interpreted accurately. In addition, the presentation of the findings will demonstrate a proper understanding and how to utilize the results, as well as highlight inappropriate approaches in which they should not be utilized.

Green consumption is a well-discussed topic in society, with people agreeing and disagreeing strongly about the importance of the topic. Most people are, according to the European Parliament (2020) aware of the impact one's consumption has on the environment, however, not consuming green is not only a matter of concern but rather depends on several other factors in addition. Moreover, it is found that one of the major negative impacts on the environment comes from consumption in one's household. Therefore, by helping marketers motivate consumers to purchase green

cosmetic products, cosmetic consumption can hopefully become greener in the long run. Continuing the ongoing trend of demand and consumption becoming greener. As competition rises in the market, and consumers at the same time value authenticity from brands, the sustainable options of cosmetics are expected to have to be improved further. Thus this study can provide input by helping marketers keep and increase the trend of green consumption in society.

In the report "Sustainable Consumption: Helping consumers make eco-friendly Choices" (European Parliament, 2020), it is stated that for consumption to become greener is not an issue about consumers not caring to purchase greener alternative products. Hence this study will ensure to present results in a manner that gives a clear understanding of the impacts of attitudes, perceived social pressure, and a sense of control of this behavior. In order to not blame consumers for not purchasing green but rather understand why one would consider purchasing green. Focusing on simplifying the process for marketers to stay green and competitive at the same time.

Therefore the presentation of the findings in this study will focus on how marketers can use this study for good and how to avoid from a social societal perspective increasing green cosmetic consumption but at the same time not doing this in a way that could put unnecessary blame on someone who at the moment is not consuming or intending to consume green cosmetic products.

In addition, it is impossible to ensure people will follow the guide provided in regards to research usage and spread, however, the results of this study firstly aim to do good by helping marketers sell greener alternatives in a largely growing industry and keeping the green trend alive in an already highly developing sustainable market in Sweden. The aim is that this can be the main implication derived from this research and that marketers hence use this study for this specific purpose of improving green consumption in society. No one should be blamed for not purchasing green options,

however, one can hopefully know how to keep green consumers and encourage non-green consumers to purchase greener products, in a motivational rather than forcing manner.

5. Results

This chapter provides an overview of the data collected from the constructed online questionnaire. The results are presented in tables, with description and clarification of the results.

5.1 Demographics

The beginning of the online questionnaire started with control questions asking about demographic variables. The researcher aimed at targeting Swedish Gen Z and Millennial consumers only. Hence, respondents outside of this scope were filtered out from participating further in the questionnaire and these answers were cleaned out from the final data set.

The demographic variables revealed that in the sample, the largest age group was 18-25, representing 78,4% of the sample. This age span is usually categorized as Gen Z. On the other hand, the least represented age group was 36-41, representing only 1% of the sample. Furthermore, it was revealed that among the respondents 67% of them identify as females, and 33% were identified as males. Among the respondents, 71% had a middle-level income, between 11.500 - 38.500 SEK monthly. The second largest income group was, the income group found was under 11.500 SEK.

5.2 Descriptive statistics

The presented table below shows the descriptive statistics derived from the results of the data gathered in the questionnaire. A likert scale measuring to what degree the respondents agree with the statement on a scale of 1-7 was used. From this, the

researchers measured the intensity of agreeing with the statement. Where 1 represents "strongly disagree" and 7 represents "strongly agree". Hence, the higher the number the respondent answers, the more the respondent agrees with the statement. Each measurement below in *table 2.* represents one statement. Four statements combined measure one concept that is the independent variables, shown at the end in the table. E.g Att_reg1, Att_reg2, Att_reg3, Att_reg4 are four measures for the combined attitude.

The table below provides an understanding of where the central point of the data gathered is from displaying the values of mean, median and mode as well as how the dispersion from the middle points is found in Skewness and Kurtosis (Lind, Marchal and Wathen, 2019; Field, 2009). From viewing the results in the table, one can find that the mean scores range between the lowest of 1.73 for "Sub_reg2" to the highest of 5.78 for "Att_reg1". The median ranges from the lowest of 1 as found in the measurements Sub_reg1 and Sub_reg2 to the highest of 6 found in all attitude measurements and in PBC_reg4. As found in the mode, the values that appear the most frequently as answered in the questionnaire, Attitude measurements had the highest mode of 7 on all items measured as well as in PBC_reg4. Moreover Sub_reg1,Sub_reg2,Sub_reg3 as well as Int_reg2 and SubMod have the lowest mode value of 1.. Remaining mode values are of 4 and 5. In addition the dispersion, referring to the deviation from the mean, is found in standard deviation where lowest is 1.046 for Sub_reg2 to highest 1.635 found in PBC_reg1. All skewness values found were within the acceptable range of -2 and 2 , moreover the majority of values was within the stricter range of -1 to 1. The items outside the stricter range were, Att_reg1, Sub_reg1, Sub_reg2 and Sub_Mod2. Moreover the kurtosis value reveals possible outliers within the distribution, here it was found that Sub_reg4 on -1.087 was the lowest value compared to Sub_reg1 on a value of 2.210.

Independent item measurements	Mean	Median	Mode	Std.dev.	Skewness	Kurtosis
Att_reg1	5.78	6	7	1.317	-1.127	1.236

Att_reg2	5.73	6	7	1.229	-0.707	-0.042
Att_reg3	5.72	6	7	1.248	-0.865	0.283
Sub_reg1	1.88	1	1	1.184	1.553	2.210
Sub_reg2	1.73	1	1	1.046	1.286	0.559
Sub_reg3	2.33	2	1	1.512	0.952	0.014
PBC_reg1	4.63	5	5	1.635	-0.227	-0.952
PBC_reg3	4.76	5	4	1.580	-0.376	-0.390
PBC_reg4	5.60	6	7	1.491	-0.936	0.423
Independent variable measurements						
AttitudeMod	5.7457	6.0000	7	1.17040	-0.945	0.901
SubMod	1.9794	1.6667	1	1.09377	1.048	0.160
PBCMod	4.9966	5.0000	4.67	1.09025	-0.317	0.030
Dependent item measurements	**Mean statistic**	**Median statistic**	**Mode**	**Std.dev**	**Skewness**	**Kurtosis**
Int_reg1	4.42	4	4	1.676	-0.086	-0.567
Int_reg2	3.33	3	1	1.748	0.339	-0.809
Int_reg3	3.67	4	4	1.790	0.111	-0.758
Dependent variable measurements						
IntentionMod	3.8076	3.6667	4.33	1.57442	0.121	-0.582

Table 2: Statistical measurements of dependent and independent variables, after modification to increase Cronbach's Alpha.

5.3 Quality criteria

5.3.1 Testing Reliability: Cronbach's Alpha

While testing for Cronbach's alpha with the original data set the values in the variables were found too low in order to ensure the measurements would be reliable enough for future studies on similar phenomena. Therefore since a lower number of items allows for a lower level of accepted alpha value, explaining accuracy and stability of measuring the concepts, one item was removed from each variable before conducting the regressions. From removing Att_reg4 ,Sub_reg4, PBC_reg2 and Int_reg4 the cronbach alpha values were increased to all be on at least a moderate and acceptable level of reliability of 5.0. Subjective Norm in addition had a very high reliability of above a value of 7.00.

Variable(s)	Cronbach's Alpha	No. of item	Items deleted from regression
Attitude	0,554	3	Att_reg4
Subjective Norm	0,731	3	Sub_reg4
PBC	0,589	3	PBC_reg2
Intention	0,500	3	Int_reg4

Table 3: Statistical measurements of testing reliability.

5.4 Regression analysis

A regression analysis was conducted to present the findings of the results of the three hypotheses for the independent variables of *Attitude*, *Subjective Norm*, and *PBC* (AttMod, SubMod, and PBCMod) combined impact on the dependent variable of *Intention* (IntMod). Firstly, the All Model, including all control variables and independent variables combined impacts on the dependent variable, is found to be significant. Looking at the ANOVA table, it is seen that the regression is significant since $F_{(6, 142,513)} = 10.047$, $P < .001$, indicating that the three independent variables have a significant impact on intention. In the model summary, one can see that the $R^2 = 0.401$. Hence, the model explains that there is a 40.1% change of the variance in intention, due to the impact of the independent variables.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	95,450	6	15,908	10,047	<,001[b]
	Residual	142,513	90	1,583		
	Total	237,963	96			

a. Dependent Variable: IntentionMod

b. Predictors: (Constant), PBCMod, Incomenumeric, SubMod, GenderNumeric, AgeNumeric, AttitudeMod

Table 4. Anova table on all model

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
					Change Statistics				
1	,633[a]	,401	,361	1,25836	,401	10,047	6	90	<,001

a. Predictors: (Constant), PBCMod, Incomenumeric, SubMod, GenderNumeric, AgeNumeric, AttitudeMod

Table 5. Model summary of all model

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95,0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	-1,614	,956		-1,689	,095	-3,513	,285		
	AgeNumeric	,276	,141	,181	1,956	,054	-,004	,557	,778	1,286
	GenderNumeric	-,140	,299	-,042	-,467	,642	-,734	,455	,826	1,211
	Incomenumeric	-,047	,230	-,018	-,203	,840	-,505	,411	,831	1,203
	AttitudeMod	,499	,133	,371	3,749	<,001	,234	,763	,681	1,468
	SubMod	,277	,119	,192	2,318	,023	,040	,514	,966	1,035
	PBCMod	,367	,141	,254	2,592	,011	,086	,648	,694	1,442

a. Dependent Variable: IntentionMod

Table 6. Coefficients of the all model

5.4.1 Hypothesis results

While looking at the table of coefficients, one can find the separate impact of the control variables and each hypothesis. Additionally, if the individual impacts are found significant. It can here be found that the control variables do not have a significant impact on Intention. Since none of the control variables have a P-value that is lower than the significance level of P (Sig)= 0.05. Indicating no significant linear impact.

H1: Attitude has a positive impact on the intention to purchase green cosmetics. The hypothesis is accepted if the dependent variable **Attitude,** has a significant and positive impact on the dependent variable **Intention**. Attitude significantly impacts Intention since B= 0,499, t= 3,749, $p < 0.001$. These results direct a positive impact from Attitude on Intention since b is a positive value. Moreover, the standardized beta is 0.371. Therefore, we reject the null hypothesis, and accept *H1*.

H2: Subjective norms have a positive impact on the intention to purchase green cosmetics. The hypothesis is accepted if the dependent variable **Subjective Norm** has a significant and positive impact on the dependent variable **Intention**. Subjective Norm significantly impacts Intention since B= 0,277, t= 2,318, $p < 0.023$. These results direct a positive impact from Subjective Norm on Intention since B is a positive value. Moreover, the standardized beta is 0,192. Therefore, we reject the null hypothesis, and accept *H2*.

H3: Perceived behavioral control has a positive impact on intention to purchase green cosmetics. The hypothesis is accepted if the dependent variable **PBC** has a significant and positive impact on the dependent variable **Intention**. PBC significantly impacts Intention since B= 0,367, t= 2,592, p < 0.011. These results direct a positive impact from PBC on Intention since B is a positive value. Moreover, the standardized beta is 0.254. Therefore, we reject the null hypothesis, and accept *H3*.

Hypothesis	Regression Weights	B	R Square used	F	t-value	p-value	Hypothesis supported (Null hypothesis rejected)
H1	AttMod→IntMod	0,499	0,401	10,047	3,749	<0,001	Yes
H2	SubMod→IntMod	0,277	0,401	10,047	2,318	0,023	Yes
H3	PBCMod→IntMod	0,367	0,401	10,047	2,592	0,011	Yes
Note: *p < 0.05.							

Table. 7. Hypotheses testing results. Modified variables.

5.4.1 Correlation

Seen from *Table 2*, it is found that the only significant correlation is between the independent variables of PBC and Attitude. This is understood since a correlation is perfectly positive at a value of 1, no correlation exists at a value of 0 and a perfectly negative correlation at -1. Thus the correlation value found between Attitude and PBC at 0.418 reveals a positive correlation significant at $p < 0.01$. Thus indicating that there could exist a collinearity between these , being on moderate level due to the value being closer to 0 than 1. No other significant relationships are found since these values are not found significant due to $p > 0.01$, showing that the remaining variables are not correlated.

Table 8: Correlation

Variable	Attitude	Subjective Norm	PBC
Attitude	1	0.163	0.481**
Subjective Norm	0.163	1	0.098
PBC	0.481**	0.098	1

** Correlation is significant at $p < 0.01$ (2-tailed).

5.4.2 VIF statistics

VIF is used in this research in order to address validity of the regression. Since found multicollinearity would indicate that the independent variables impact each other and hence decreases validity of possible found linear impacts from one independent on the dependent variable (Field, 2009). Since the VIF value for all three variables is as low as under 2, the correlation between these variables is not an issue for this study. This since low values indicate that the variables are not measuring the same things. Ensuring higher validity of the study results.

Table 3. VIF statistics

Independent variable(s)	VIF statistics
Attitude	1,697
Subjective Norm	1,097
PBC	1,549

6. Discussion

In this chapter the results of the data results will be discussed as well as a discussion on each hypothesis.

6.1 Discussion of hypotheses 1: Attitude

As seen from Table 6, the found results from the regression analysis support and accept the hypothesis that attitude has a positive impact on the *Intention* to purchase green cosmetic products. As the impact from *Attitude* on *Intention* is significant at $P < 0.001$. Indicating that the null hypothesis was rejected, therefore *H1* could be accepted. The established results align with the previous research, explaining that people's combined views of, opinions, and feelings towards a behavior affect the person's intentions to perform a behavior (Ajzen, 1991). Solomon et al, (2019) stated that attitudes are formed towards a behavior or an object, in this context being the attitude of purchasing and attitude on green cosmetic products.

Furthermore, it is apparent that among the three hypotheses tested, the measurements in the independent variable AttMod, this element of possible impact, scores the highest among variables *(see table 2)*. Found by the highest mean value among the independent variables of a value of 5,7457. This value is high in a scale of 1-7, indicating that the found positive attitudes lean more towards higher numbers than lower numbers on the likert scale, found in addition in *Appendix 2, figure 1*. Here the researchers can further see that the majority of respondents lean towards higher intensity of agreeing on a positive attitude towards green cosmetics. Furthermore, as found from a positive B-value of 0.499 in the regression analysis (see table 6), the degree of impact between the predictor Attitude and dependent variable (Intention, Y). When considering Attitude (X) having a B-value of 0.499 it indicates how much one average intention would increase if attitude increases by one unit. Resulting in the

understanding that when the independent variable attitude increases by one unit, intention should have an average increase of 0,499 since the B-value is positive. This would be the impact if all other variables in the regression are held constant. Similarly Limbu, Pham, and Nguyen (2022), found that a strong positive attitude towards the attitude object, in this case, green consumption behavior should increase the consumers' intention to feel they want to participate in the behavior. In TPB a positive attitude is further found in previous studies on green consumption to highly impact the consumers' green purchasing intention (Echchad and Ghaith, 2022; Chin et al, 2018; Al Mamun et al, 2020). Hence explaining this positive impact on intention from the high score of attitude found in the data.

Following these results, attitudes are highly important in consumers' everyday decision-making process and their evaluation of products (Ajzen, 1991; Kidwell and Jewell, 2010). Displaying that attitude, among the elements of TPB would have the largest impact on the Intention to purchase green cosmetics.This is found in the results too since among all hypotheses the highest significance and highest B-value is displayed in H1 attitudes. The attitudes were from the beginning measured using measurements derived from theory where statements were asked about positive thoughts, opinions, feelings towards and favorable beliefs about green cosmetics. While analyzing the results from testing of hypotheses it can from the results be found that similarly to previous research regarding green cosmetic consumption, a positive attitude has a positive impact on consumers intention to purchase green cosmetics.

6.2 Discussion of hypothesis 2: Subjective Norm

As seen from Table 6, the found results from the regression analysis support and accept the hypothesis concerning the positive impact Subjective Norm has on the *Intention* to purchase green cosmetic products. Understood since the impact from *Subjective Norm* on *Intention* is significant at $p < 0.05$. Indicating that the null hypothesis was rejected, therefore *H2* could as well be accepted. Subjective norms referring to the social pressure from one's surroundings (Ajzen, 1991). Previous research has supported that social pressure from the surrounding environment can

influence the ultimate intention towards a behavior (Cialdini and Goldstein, 2004, Park, 2000 and Manning, 2009).

However, as seen in the histogram *(See Appendix 2, figure 2)* the values for SubMod are relatively low between 1 and 5. Moreover, the mean value is 1.98, indicating a low perceived social pressure from one's surroundings *(See table 2)*. SubMod is found here to have the lowest mean and overall measurement scores. Showing that the respondents did not perceive a high social pressure. Subjective Norms are still found to have a significant positive impact on intention, however, from having the highest P-value among the hypotheses, it can be concluded that the probability of this impact occurring is the least for the subjective norm compared to attitude and PBC. In addition, this hypothesis has the lowest B value of 0.277. Therefore, showing that for one unit increase in the subjective norm there would be an average increase of 0.277 in the dependent variable. Furthermore, subjective norms are found to significantly and positively impact intention but not to an extreme degree. It can be seen in *table 2.* that among the items of measurement, SUB_reg3 measuring pressure from peers had the highest score of participants agreeing with the statement. This is strengthened by Cialdini and Goldstein (2004) that states the social influence is particularly strong when pressure comes from one's close relationships, including friends, family and peers. In regards to this, it is found that a perceived social pressure from friends and family can be influential in purchasing green cosmetics, by looking at the item measurements of Sub_reg1 (family) as well as Sub_reg2 (friends). One possible explanation for the low perceived social pressure to purchase green cosmetics, could be understood by Manning (2009) who states that social pressure is usually perceived higher in regards to behaviors that are considered socially undesirable. Consuming green could be seen as an acceptable behavior due to being sustainable. Hence, Consumers might perceive less pressure in regards to the behavior since it is socially acceptable in today's society.

The found score among respondents on perceived social pressure as studied in subjective norms, the overall values were low *(Table 2, appendix 2, fig2)*. However since there is still, from low values, a found significant positive impact on intention to purchase green products. Aligning with what Ajzen (1991) explains, people are very

likely to be influenced by others while deciding on engaging in a certain behavior or not. A low level of social pressure could hence still affect the consumers intention to perform the behavior. Therefore, the researchers do understand that the impact of subjective norms is still a factor affecting intentions to purchase green cosmetics even though the levels of perceived social pressure found were low among respondents.

6.3 Discussion of hypothesis 3: Perceived behavioral control (PBC)

The results from the regression analysis (See table 6) support and accept the hypothesis concerning the positive impacts perceived behavioral control has on the *Intention* to purchase green cosmetic products. Understood since the impact from *PBC* on *Intention* is significant at $p < 0.01$. Indicating that the null hypothesis was rejected, enabling *H2* to be accepted. Ajzen's (1991) definition of PBC, describes one's resources and opportunities to perform certain behaviors if the control is in one's own hands. By viewing the results, the mean value was found to be 4.9966, indicating that the respondents perceived to have resources and be in their own control over deciding on purchasing green cosmetic products. Furthermore, explained to have the resources of knowledge and enough time to form a positive intention to purchase green cosmetic products. As stated by Ajzen (1985), individuals who have the available resources and opportunities are explained to be more likely to hold an intention towards performing a certain behavior. Hence the outcome of the actual behavior becomes higher if one perceives they have available resources.

Ajzen and Fishbein (2000) further explain that PBC is one's perception of how easy or difficult it is to execute a certain behavior. Furthermore, Cheng and Huang (2013), explains if one feels they know how to perform the behavior one is more likely to form a positive intention to perform. Hence explaining that the found level of PBC among the respondent, based on showing a level of resources, including time and knowledge of how to purchase green cosmetics. In addition, having a feeling of being in control of the decision to purchase or not, together positively impacts the intentions to purchase green cosmetics. According to Ajzen (1991), a substantial part of one's PBC is the feeling that the decision to participate in a behavior is in one's own hands.

Hence a possible explanation for PBC_reg4 has been found to have the highest level of agreement since this measurement captures its own control (*table 2*).

Seen from the regression analysis *(table 6)*, PBC had a B value of 0,367, meaning when one unit increases in PBC, there is an increase of 0.367 on average in the dependent variable of intention. Indicating similar results as Kim and Han (2010), Kun Shan and Yi Man (2011), and Karatu and Nik Mat (2015), explains, that there is a positive relationship between the two variables of PBC and intention to purchase products that are green, in the case of intention to purchase green cosmetic product.

6.4 Overall results and discussion

The overall results of this thesis are that the elements implied to affect behavior included in the model of TPB, attitude, subjective norm, and PBC, studied together, all have a significant and positive impact on consumer's intention to purchase green cosmetic products. Together found to account for 40.1% of the variance in consumers' green cosmetic purchase intention (See Table 5.). As seen from the level of significance, attitude positively impacting intention is found to have the highest probability of occurring and is considered more likely to impact consumer green cosmetic purchase intention. Based on the probability to occur, PBC is found in second place, and lastly Subjective norm. Moreover while addressing how large the positive impacts of attitude, subjective norm, and PBC would have on intention if occurring. The attitude would have the largest impact, PBC the second largest, and the Subjective norm with the least impact. This was found by viewing the different coefficient values for each independent hypothesis (see Table 6).

Furthemore, the demographics of age, gender and income were not found to have a significant impact on green cosmetic consumption intention while analyzing impact in combination with the impact of attitude, subjective norm and PBC. Hence increasing the validity of the found impacts of the hypotheses on intention by excluding possible alternative impact of these control variables. In addition to ensuring validity, a test of multicollinearity and a correlation test among the independent variables was conducted. In the correlation analysis one could find one significant relationship

between PBC and Attitude, however only on a moderate level (Ekolu and Quainoo, 2017).

While testing the measurements for a possible variation inflation factor it was found that there was no severe multicollinearity among the dependent variables (See Table.3). Since VIF values for all variables resulted in a value between 1 and 2 (Daoud, 2017). The validity of results is hence justified to be on an acceptable level for the scope of the study since similarity among measurements in social science studies is difficult to ensure to measure different constructs if being connected in reality partly (Astivia, 2020). This is the case for TPB since TPB addresses different elements of consumer behavior. To increase the validity of the measurements an extra emphasis has been on deriving measurements from a wide and credible theoretical and empirical foundation in research of TPB, green consumption, and consumer behavior instead.

Moreover, to address the research quality criteria of reliability Cronbach's Alpha has been used as a measurement of stability among the variables (Bryman, Bell and Harley, 2019). The values require modification to increase the stability in accurately being able to be used for similar studies in the future studying similar phenomena. By discluding one item measurement for each of the dependent variables Cronbach's alpha was increased for all variables to be on an acceptable level of 5 and above, this is for studies using smaller amounts of items, similar to this research (Ekolu and Quainoo, 2017). The values that were taken away were the ones that in the pretest had already been addressed by the respondents to be more easily misinterpreted. The researchers did understand in the pre-test that these later removed items would be good to include as derived for previous research in this field and were hence kept. However, the initial reasoning behind these item measurements, possibly not being reliable enough to be able to capture real-life phenomena stably and accurately over several studies, was found to be the case in the test for Cronbach's alpha later. An issue that hence was possible to solve in the end by removing these unreliable items. To address is like in regards to validity in addition to reliability that one can increase the quality of the research by disclosing all details and issues of the research process and the foundation of knowledge that the measurements were derived from as well as

aim to capture in real life. Hence by including these considerations and doing this the study still has a good level of quality.

From this and the understanding of how to ensure valid results in a study on social sciences, that is human behavior the researcher considers the study result valid and reliable to draw conclusions from still. However with caution. According to Astivia (2020), in social sciences it is difficult to ensure that measurements are in fact capturing the real life phenomena that these are intended to measure. This since social sciences is more dynamic while studying human behavior. Hence due to the nature of the field, it is considered more important to increase validity by being transparent and clear in displaying the results and the research process, focusing on providing clarity in how measurements and interpretations have been derived from theoretical understanding. It is hence not possible to find a data set that is normally distributed, ensuring that measurements are extremely precise.

7. Conclusion

The purpose of this thesis was to explain the impact attitude, subjective norm and perceived behavioral control has on consumers' intentions to purchase green cosmetics. Therefore, from a theoretical foundation of the elements of TPB, three hypotheses were developed. A conceptual model was constructed demonstrating a possibility for H1; attitude, H2; Subjective Norm, H3; PBC all having positive impact on intention towards the behavior of purchasing green cosmetic products. This was conducted in a new cultural context, as of studying Gen Z and Millennial Swedish consumers. As seen in *Table 7. Hypothesis results*, it was concluded that all three null hypotheses were rejected, hence accepting; H1, H2 and H3.In addition, it was found that H1 had the most probability of occuring, being significant on a level of $P < 0.001$. Secondly, H3 was significant on $P < 0.01$. Moreover, H2 showed significant impact on $P < 0.05$. All three hypotheses, together account for 40.1% of the variance in green purchase intention. In addition, the testing for demographic control variables has no significant impact on the intention to purchase green cosmetic products. Moreover, research quality was reassured through a test of Pearson correlation, variance inflation factor, modification of variables to increase Cronbach's Alpha and transparency of the research process. Aligned with previous research, this thesis provides understanding that Attitude, Subjective Norm and Perceived behavioral control can positively impact green cosmetic purchase intention.

7.1 Theoretical implications

This thesis provides a theoretical contribution to the already existing literature available regarding green cosmetic consumption, useful in the field of marketing and consumer behavior. Previously addressed by Kidwell and Jewell (2010) is that TPB is a theory possible to use while aiming for understanding and possibly predicting human behavior. The theory has been applied in research regarding green cosmetic consumption (Chin et al., 2018; Khan and Salim, 2020; Limbu, Pham, and Nguyen, 2022; Karatu and Nik Mat, 2015; Pudaruth, Juwaheer and Seewoo, 2015; Shimul, Cheah and Khan, 2021; Shukre, A., 2022) and while studying green consumption in general (Setyawan et al, 2018; Liobikienė and Bernatonienė, 2017).

However, this thesis provides an understanding of the found impact of attitude, subjective norm, and PBC on behavioral Intentions as proposed by Ajzen's theory of planned behavior (Ajzen, 1991). This is in a new cultural context by studying the model in regards to green cosmetic consumption but in addition to a new sample of Swedish Millenial and Generation Z consumers. Furthermore, the study provides insight into the three elements of consumer intention formation among a consumer group living in a country highly different from where TPB has been studied previously. The Swedish consumer's demand for green products and green cosmetic products is higher (Open Trade Gate Sweden, 2022). These consumers live in the most sustainable countries in the Nordics (Lopez, 2022), with high sustainable

awareness and concern as well a significantly higher demand for green products than the rest of the European countries (European Parliament, 2020). Hence since the consumer behavior is highly contextually dependent one can benefit from an understanding of TPB in green cosmetic consumption in this new context, testing the model with a new sample. In this new context this study implies that attitude, subjective norm and perceived behavioral control are valid elements affecting behavioral intentions to consume green cosmetic products.

7.2 Practical implications

As attitude, Subjective Norm, and Perceived Behavioral control were found to have an impact on green cosmetic purchase intention, practical implications of this research can be drawn. This study's results indicate that a positive attitude can lead to a positive behavioral intention to purchase green cosmetic products. Similar effects in intentions are found from perceived social pressure and a sense of perceived control over the behavior performance ability to purchase green cosmetics. The researchers would therefore imply that marketers and businesses can improve their competitive advantage in the high-green and fast-growing Swedish cosmetic market by understanding these thesis results.

The results indicate the importance of further investing in understanding why consumers form positive attitudes toward green cosmetics, and in what way people feel pressured by others to purchase green products. In addition, it is found that a feeling of the purchasing behavior being in one's own hands is also positively impacting intentions. Hence marketers should not aim for pressuring anyone to purchase green cosmetics as this would only limit the feeling of their own control of the decision. However one could aim at increasing awareness and understanding of how green products are beneficial and at the same time provide knowledge of how to evaluate green marketing communication, aiming for increasing knowledge among

consumers, hopefully increasing the positive attitudes and the sense of perceived ability and understanding of how and why one should purchase green cosmetics.

Moreover, they are found for understanding consumers' attitudes. The emphasis should be on trying to understand how attitudes can be beneficial to comprehend in a competitive market. As the demand for green cosmetic products is increasing and is perceived to be high, understanding consumers' attitudes becomes even more relevant. Hence, the practical implications that can be drawn are that marketers and businesses should invest in resources that are trying to comprehend how consumers' attitudes are formed, especially around the consumer group of Millennials and Gen Z. As this consumer group is seen to have a great buying power as well as being two generations

that care about sustainability. Therefore, another important aspect when understanding attitudes is understanding how they are formed, how they can be shaped positively, and how they can effectively influence purchase intentions towards green cosmetic products. These practical implications will help companies differentiate themselves by understanding factors influencing consumers' behavioral intentions. Fishbein and Ajzen (1975), state that one's behavioral intention is a good predictor of actual behavior, as studied previously in TPB.

This study provides marketers with insights into what influences consumers' intention to perform certain behaviors. Therefore, by understanding the attitude, subjective norm, and perceived behavioral control, businesses and marketers can understand which one of these has the most influential impact on consumers' intention to perform certain behaviors, by first understanding their intentions. As seen through the hypothesis testing, the independent variable with the most impact on intention was found to be attitude. Hence, the researcher can see that the variable that has the greatest impact on intention was attitude. Hence, the practical implications of this study would be for marketers and enterprises to understand what drives attitude more and understand how they become positive. Since a positive attitude is considered to have the greatest impact on intention, leading to performing an actual behavior. However, one should not neglect the significant value of subjective norms and Perceived behavioral control. Even though these two variables had less impact on

intention, there was still an impact on intention. Here the researchers saw that in Perceived behavioral control, the biggest factor was if the respondents felt they had control over their own behavior and if they felt they had knowledge over performing the behavior, hence intention increased. Thus, understanding how consumers get hold of products and how, where and how, how this can impact their perceived control over purchasing green cosmetic products. Therefore, the practical implication is for companies to make consumers feel like they are in a position of control, and that the consumers know how to perform the purchase behavior otherwise, the intention might be lower. Lastly, social norms had the least significant impact on purchase intention toward green cosmetic products. However, the subjective norm should not be neglected since it can still be understood to have an impact on the social surroundings. It is not as strong as the intention to perform a behavior as attitude had as a variable. but one should not neglect it completely. The greatest focus should rely on understanding attitudes, how they are formed, how they become positive, and how well they influence purchase intentions, especially in a growing market such as green cosmetic products where competition is high.

8. Limitations and future research

8.1 Limitations

The limitations the authors of this study want to address is that the actual behavior is not being studied, rather it is the intention for prediction of the behavioral outcome. Therefore, the authors would suggest for future research and recommendations to look at the actual behavior as well as the differences between specific demographics that could have a greater impact than the three demographic variables we looked over in this study.

In this thesis the researchers have been aware of the possible weaknesses in the data set with some low values, two independent variables displaying a moderate level of correlation and that the sample size is rather small. These issues however, due to the nature and scope of the research are disregarded as issues that would disturb validity and reliability of the results and findings since being fully transparent with the research process and measurement development is regarded as enough to ensure that possibility for recreation of the study under similar circumstances if one follows what in this thesis has been taken into consideration in the theoretical foundation, data collection and analysis.

The findings of this research are considered valid and reliable in regards to Swedish Gen Z and Millennial consumers that are females but can not be generalized to a population of other genders as well. This is due to the sample including around 70% females and hence a bias could potentially exist, affecting the findings. To ensure the generalization to the Swedish population can be done this must be addressed as well as inclusion or other demographic and in addition psychographic variables. Hence the sample aimed at being studied was due to limited time and monetary resources only available to be generalized to the female target group within the decided sample frame.

8.2 Recommendations for future research

The researchers encourage future studies on consumer behavior of green cosmetics among males due to the limitations presented. Males are found to care less about sustainable consumption than females and as not being fully represented in this study's sample this is a consumer group one should further explore. This study addresses cosmetics as a whole, however, future studies could aim for explaining these intentions concerning specific cosmetic product categories, hence ensuring more precision concerning the results of consumers' specific attitudes, subjective norms, and PBC connected to specific product attributes for example. One would further benefit from exploring this topic more in-depth, using qualitative methods to understand the result found in this study further, on a detailed level.

Other ideas for research that has arisen during the research process are from a societal perspective to increase sustainable consumption. Furthermore address the same topic as this thesis, however from another perspective, of attempting to instead understand how intention is negatively impacted. Hence one could address why consumers who for example have a high level of green concern and want to purchase green still do not do this.

Reference list

Adams, A. and Cox, A.L. (2008). Questionnaires, in-depth interviews and focus groups. *Research Methods for Human–Computer Interaction*, pp.17–34. doi:https://doi.org/10.1017/cbo9780511814570.003.

Afifi, A.A., May, S., Donatello, R.A. and Clark, V. (2021). *Practical multivariate analysis.* Boca Raton Crc Press, Taylor Et Francis Group.

Airey, J. (2004). Can you Teach it in English? Aspects of the Language Choice Debate in Swedish Higher Education. pp.97–108.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, [online] 50(2), pp.179–211. doi:https://doi.org/10.1016/0749-5978(91)90020-T.

Ajzen, I. and Fishbein, M. (2000). Attitudes and the Attitude-Behavior Relation: Reasoned and Automatic Processes. *European Review of Social Psychology*, 11(1), pp.1–33. doi:https://doi.org/10.1080/14792779943000116.

Al Mamun, A., Nawi, N.C., Hayat, N. and Zainol, N.R.B. (2020). Predicting the Purchase Intention and Behaviour towards Green Skincare Products among Malaysian Consumers. *Sustainability*, 12(24), p.10663. doi:https://doi.org/10.3390/su122410663.

Armstrong, G., Kotler, P., Harker, M. and Brennan, R. (2015). *Marketing : an introduction*. Boston: Pearson.

Astivia, O.L.O. (2020). Issues, Problems and Potential Solutions when Simulating Continuous, Non-normal Data in the Social Sciences. *Meta-Psychology*, [online] 4(6), pp.1–6. doi:https://doi.org/10.17605/OSF.

Bell, E., Bryman, A. and Harley, B. (2019). *Business Research Methods*. 5th ed. Oxford: Oxford University Press.

Chen, M.-F. and Tung, P.-J. (2014). Developing an extended Theory of Planned Behavior model to predict consumers' intention to visit green hotels. *International Journal of Hospitality Management*, 36(1), pp.221–230. doi:https://doi.org/10.1016/j.ijhm.2013.09.006.

Cheng, H.-H. and Huang, S.-W. (2013). Exploring antecedents and consequence of online group-buying intention: An extended perspective on theory of planned behavior. *International Journal of Information Management*, 33(1), pp.185–198. doi:https://doi.org/10.1016/j.ijinfomgt.2012.09.003.

Chin, J., Jiang, B., Mufidah, I., Persada, S. and Noer, B. (2018). The Investigation of Consumers' Behavior Intention in Using Green Skincare Products: A Pro-Environmental Behavior Model Approach. *Sustainability*, [online] 10(11), p.3922. doi:https://doi.org/10.3390/su10113922.

Cialdini, R.B. and Goldstein, N.J. (2004). Social Influence: Compliance and Conformity. *Annual Review of Psychology*, [online] 55(1), pp.591–621. doi:https://doi.org/10.1146/annurev.psych.55.090902.142015.

Craig, B., Moore, D.S. and McCabe, G.P. (2009). Introduction to the Practice of Statistics. *Journal of Educational Statistics*, 16(1), p.77. doi:https://doi.org/10.2307/1165100.

Daoud, J.I. (2017). Multicollinearity and Regression Analysis. *Journal of Physics: Conference Series*, 949(1), p.012009. doi:https://doi.org/10.1088/1742-6596/949/1/012009.

Denscombe, M. (2009). Item non‑response rates: a comparison of online and paper questionnaires. *International Journal of Social Research Methodology*, 12(4), pp.281–291. doi:https://doi.org/10.1080/13645570802054706.

Denscombe, M. (2014). *The Good Research Guide for Small-Scale Social Research Projects*. 5th ed. London: Open University Press.

Echchad, M. and Ghaith, A. (2022). Purchasing Intention of Green Cosmetics Using the Theory of Planned Behavior: The Role of Perceived Quality and Environmental Consciousness. *Expert Journal of Marketing*, [online] 10(1). Available at: https://marketing.expertjournals.com/23446773-1006/.

Ecocert (2023). *Certifications and Labels for Cosmetics (Organic and Natural) | Ecocert*. [online] Ecocert.com. Available at: https://www.ecocert.com/en/business-sectors/cosmetics.

Education First (2022). *EF English proficiency Index*. [online] *EF*, Education first, pp.1–21. Available at: https://www.ef.com/assetscdn/WIBIwq6RdJvcD9bc8RMd/cefcom-epi-site/reports/2022/ef-epi-2022-english.pdf [Accessed 17 May 2023].

European Parliament (2020). *Sustainable consumption Helping consumers make eco-friendly choices* . [online] *europarl.europa.eu*, pp.1–10. Available at: https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2020)659295 [Accessed 24 May 2023].

Field, A. (2009). *Discovering statistics using SPSS : (and sex and drugs and rock'n'roll)*. London: Sage.

Fishbein, M. and Ajzen, I. (1975). Belief, Attitude, Intention and Behavior: an Introduction to Theory and Research. *Contemporary Sociology*, 6(2), p.244.

Fisher, M.J. and Marshall, A.P. (2009). Understanding Descriptive Statistics. *Australian Critical Care*, [online] 22(2), pp.93–97. doi:https://doi.org/10.1016/j.aucc.2008.11.003

Fromm, J. (2022). *As Gen Z's Buying Power Grows, Businesses Must Adapt Their Marketing*. [online] Forbes. Available at: https://www.forbes.com/sites/jefffromm/2022/07/20/as-gen-zs-buying-power-grows-businesses-must-adapt-their-marketing/?sh=6fae52852533 [Accessed 24 May 2023].

Galesic, M. and Bosnjak, M. (2009). Effects of Questionnaire Length on Participation and Indicators of Response Quality in a Web Survey. *Public Opinion Quarterly*, [online] 73(2), pp.349–360. doi:https://doi.org/10.1093/poq/nfp031.

Ghazali, E., Soon, P.C., Mutum, D.S. and Nguyen, B. (2017). Health and cosmetics: Investigating consumers' values for buying organic personal care products. *Journal of Retailing and Consumer Services*, 39(1), pp.154–163. doi:https://doi.org/10.1016/j.jretconser.2017.08.002.

Gibbons, F.X., Gerrard, M., Blanton, H. and Russell, D.W. (1998). Reasoned action and social reaction: Willingness and intention as independent predictors of health risk. *Journal of Personality and Social Psychology*, 74(5), pp.1164–1180. doi:https://doi.org/10.1037/0022-3514.74.5.1164.

Gorsuch, R.L. and Ortberg, J. (1983). Moral obligation and attitudes: Their relation to behavioral intentions. *Journal of Personality and Social Psychology*, 44(5), pp.1025–1028. doi:https://doi.org/10.1037//0022-3514.44.5.1025.

Grand View Research (2019). *Cosmetics Market Size & Share | Global Industry Analysis Report, 2025*. [online] Grandviewresearch.com. Available at: https://www.grandviewresearch.com/industry-analysis/cosmetics-market .

Green, S.B. (1991). How Many Subjects Does It Take To Do A Regression Analysis. *Multivariate Behavioral Research*, [online] 26(3), pp.499–510. Available at: https://www.tandfonline.com/doi/pdf/10.1207/s15327906mbr2603_7?needAccess=true.

Hair, J.F. (2010). *Multivariate Data Analysis*. Pearson.

Hsu, C.-L., Chang, C.-Y. and Yansritakul, C. (2017). Exploring purchase intention of green skincare products using the theory of planned behavior: Testing the moderating effects of country of origin and price sensitivity. *Journal of Retailing and Consumer Services*, 34, pp.145–152. doi:https://doi.org/10.1016/j.jretconser.2016.10.006.

Jaini, A., Quoquab, F., Mohammad, J. and Hussin, N. (2019). Antecedents of green purchase behavior of cosmetics products. *International Journal of Ethics and Systems*, ahead-of-print(ahead-of-print). doi:https://doi.org/10.1108/ijoes-11-2018-0170.

Jang, S.Y., Chung, J.Y. and Kim, Y.G. (2014). Effects of Environmentally Friendly Perceptions on Customers' Intentions to Visit Environmentally Friendly Restaurants: An Extended Theory of Planned Behavior. *Asia Pacific Journal of Tourism Research*, 20(6), pp.599–618. doi:https://doi.org/10.1080/10941665.2014.923923.

Karatu, V.M.H. and Nik Mat, N.K. (2015). The Mediating Effects of Green Trust and Perceived Behavioral Control on the Direct Determinants of Intention to Purchase Green

Products in Nigeria. *Mediterranean Journal of Social Sciences*. [online] doi:https://doi.org/10.5901/mjss.2015.v6n4p256.

Khan, S. and Salim, A. (2020). Saudi females' buying behavior of green cosmetics: A pertinent motivational aspect. *Journal of Marketing Communications*, pp.1–13. doi:https://doi.org/10.1080/13527266.2020.1720268.

Kidwell, B. and Jewell, R.D. (2010). The Motivational Impact of Perceived Control on Behavioral Intentions. *Journal of Applied Social Psychology*, 40(9), pp.2407–2433. doi:https://doi.org/10.1111/j.1559-1816.2010.00664.x.

Kim, Y. and Han, H. (2010). Intention to pay conventional-hotel prices at a green hotel – a modification of the theory of planned behavior. *Journal of Sustainable Tourism*, 18(8), pp.997–1014. doi:https://doi.org/10.1080/09669582.2010.490300.

Kun Shan, Wu and Yi Man, T. (2011). Applying the extended theory of planned behavior to predict the intention of visiting a green hotel. *African Journal of Business Management*, 5(17), pp.7579–7587. doi:https://doi.org/10.5897/ajbm11.684

Lim, W.M., Yong, J.L.S. and Suryadi, K. (2014). Consumers' Perceived Value and Willingness to Purchase Organic Food. *Journal of Global Marketing*, 27(5), pp.298–307. doi:https://doi.org/10.1080/08911762.2014.931501 .

Limbu, Y.B., Pham, L. and Nguyen, T.T.T. (2022). Predictors of Green Cosmetics Purchase Intentions among Young Female Consumers in Vietnam. *Sustainability*, [online] 14(19), p.12599. doi:https://doi.org/10.3390/su141912599.

Lind, D.A., Marchal, W.G. and Samuel Adam Wathen (2019). *Basic statistics for business and economics*. New York, Ny: Mcgraw-Hill Education.

Liobikienė, G. and Bernatonienė, J. (2017). Why determinants of green purchase cannot be treated equally? The case of green cosmetics: Literature review. *Journal of Cleaner Production*, 162, pp.109–120. doi:https://doi.org/10.1016/j.jclepro.2017.05.204.

Liu, M.T., Liu, Y. and Mo, Z. (2020). Moral norm is the key. *Asia Pacific Journal of Marketing and Logistics*, ahead-of-print(ahead-of-print). doi:https://doi.org/10.1108/apjml-05-2019-0285.

Lopez, A. (2023). *Nordic countries: tourism sustainability rating 2021*. [online] Statista. Available at:
https://www.statista.com/statistics/723923/tourism-sustainability-pillars-nordic-countries/ [Accessed 26 Apr. 2023].

Mann, C. and Stewart, F. (2000). *Internet communication and qualitative research.* Sage.

Manning, M. (2009). The effects of subjective norms on behaviour in the theory of planned behaviour: A meta-analysis. *British Journal of Social Psychology*, 48(4), pp.649–705. doi:https://doi.org/10.1348/014466608x393136 .

McBride, M., Carter, L. and Phillips, B. (2020). Integrating the theory of planned behavior and behavioral attitudes to explore texting among young drivers in the US. *International Journal of Information Management*, [online] 50, pp.365–374. doi:https://doi.org/10.1016/j.ijinfomgt.2019.09.003.

Moore, D.S., Mccabe, G.P. and Craig, B.A. (2021). *Introduction to the practice of statistics*. New York, Ny: W. H. Freeman And Company.

Muijs, D. (2010). *Doing quantitative research in education with SPSS*. Los Angeles: Sage Publications, Cop.

Nguyen, T.T.H., White, K.M., Sendall, M.C. and Young, R.M. (2019). Patterns of drinking alcohol and intentions to binge drink among medical students in Vietnam. *Health Education Research*, 34(4), pp.447–459. doi:https://doi.org/10.1093/her/cyz019.

Open Trade Gate Sweden (2022). *Market study: The Swedish market for cosmetics*. [online] Kommerskollegium. Available at:
https://www.kommerskollegium.se/en/publications/market-studies/the-swedish-market-for-cosmetics/ [Accessed 21 May 2023].

Ottman, J.A. (1998). *Green marketing : opportunity for innovation*. New York: J. Ottman Consulting Inc.

Ottman, J.A. (2011). *The new rules of green marketing : strategies, tools, and inspiration for sustainable branding*. Sheffield England: Greenleaf ; San Francisco, Calif.

Park, H.S. (2000). Relationships among attitudes and subjective norms: Testing the theory of reasoned action across cultures. *Communication Studies*, 51(2), pp.162–175. doi:https://doi.org/10.1080/10510970009388516.

Patsnap (2022). *Green Cosmetics: What Lies Ahead of This Exciting Field of Innovation?* [online] PatSnap. Available at: https://www.patsnap.com/whats-in-the-future-of-green-cosmetics?fbclid=IwAR2CcccmwGajBdftsDeKrlVha76AGNOEa-52ygdAaLMFlnBvhfb8z4iE8sA [Accessed 4 Apr. 2023].

Paul, J., Modi, A. and Patel, J. (2016). Predicting green product consumption using theory of planned behavior and reasoned action. *Journal of Retailing and Consumer Services*, 29(29), pp.123–134. doi:https://doi.org/10.1016/j.jretconser.2015.11.006.

Peattie, K. (2010). Green Consumption: Behavior and Norms. *Annual Review of Environment and Resources*, [online] 35(1), pp.195–228. doi:https://doi.org/10.1146/annurev-environ-032609-094328.

Pettruzzi, D. (2023). *Sweden: cosmetics consumption value 2013-2019*. [online] Statista. Available at: https://www.statista.com/statistics/857173/sweden-cosmetics-consumption-value/ [Accessed 16 May 2023].

Pomazal, R.J. and Jaccard, J.J. (1976). An informational approach to altruistic behavior. *Journal of Personality and Social Psychology*, 33(3), pp.317–326. doi:https://doi.org/10.1037/0022-3514.33.3.317.

Popper, K.R. (2005). The Logic of Scientific Discovery. *Systematic Zoology*, 26(3), p.361. doi:https://doi.org/10.2307/2412687.

Pudaruth, S., Juwaheer, T.D. and Seewoo, Y.D. (2015). Gender-based differences in understanding the purchasing patterns of eco-friendly cosmetics and beauty care products in Mauritius: a study of female customers. *Social Responsibility Journal*, 11(1), pp.179–198. doi:https://doi.org/10.1108/srj-04-2013-0049.

Quainoo , H. and O. Ekolu, S. (2017). Reliability of assessments in engineering education using Cronbach's alpha, KR and split-half methods . *Global Journal of Engineering Education*, 21(1), pp.273–1296. doi:https://doi.org/10.1007/s11165-016-9602-2.

Sadati, A. and Mohammadi, Y. (2012). *Key Values Influence Consumer Intention Towards Organic Food in Iran*. [online] Available at: https://www.researchgate.net/publication/267959151_Key_Values_Influence_Consumer_Intention_Towards_Organic_Food_in_Iran [Accessed 12 May 2023].

Saleki, R., Quoquab, F. and Mohammad, J. (2019). What drives Malaysian consumers' organic food purchase intention? The role of moral norm, self-identity, environmental concern and price consciousness. *Journal of Agribusiness in Developing and Emerging Economies*, 9(5), pp.584–603. doi:https://doi.org/10.1108/jadee-02-2019-0018.

Schwartz, S.H. and Tessler, R.C. (1972). A test of a model for reducing measured attitude-behavior discrepancies. *Journal of Personality and Social Psychology*, 24(2), pp.225–236. doi:https://doi.org/10.1037/h0033365.

Setyawan, A., Noermijati, N., Sunaryo, S. and Aisjah, S. (2018). Green product buying intentions among young consumers: extending the application of theory of planned behavior. *Problems and Perspectives in Management*, [online] 16(2), pp.145–154. doi:https://doi.org/10.21511/ppm.16(2).2018.13.

Shimul, A.S., Cheah, I. and Khan, B.B. (2021). Investigating Female Shoppers' Attitude and Purchase Intention toward Green Cosmetics in South Africa. *Journal of Global Marketing*, 35(1), pp.1–20. doi:https://doi.org/10.1080/08911762.2021.1934770.

Shukre, A. (2022). Young Indian women's purchase intentions for green cosmetics: an empirical study. *Middle East J. of Management*, 1(1), p.1. doi:https://doi.org/10.1504/mejm.2022.10045267.

Solomon, M.R., Askegaard, S., Hogg, M.K. and Bamossy, G.J. (2019). *Consumer behaviour : a European perspective*. 7th ed. New York: Pearson, p.5.

Stelmaszczyk, O. (2022). *The Gen Z Beauty Consumer*. [online] Euromonitor. Available at: https://www.euromonitor.com/article/the-gen-z-beauty-consumer?fbclid=IwAR1A4bfxyinSKjm1Wg4RUgrUMhWMZATNG4BECnJBo-f5DyHCPb00s6Zgs9k [Accessed 4 Apr. 2023].

Svenskarna och internet (2022). *Sammanfattning*. [online] Svenskarna och internet. Available at: https://svenskarnaochinternet.se/rapporter/svenskarna-och-internet-2022/sammanfattning/.

Tan, T.H. (2013). Use of Structural Equation Modeling to Predict the Intention to Purchase Green and Sustainable Homes in Malaysia. *Asian Social Science*, 9(10). doi:https://doi.org/10.5539/ass.v9n10p181.

Tarkiainen, A. and Sundqvist, S. (2005). Subjective norms, attitudes and intentions of Finnish consumers in buying organic food. *British Food Journal*, 107(11), pp.808–822. doi:https://doi.org/10.1108/00070700510629760.

Taylor, S. (2023). *Skewness*. [online] Corporate Finance Institute. Available at: https://corporatefinanceinstitute.com/resources/data-science/skewness/?fbclid=IwAR0IiC56Y_Bg7YSWXs249uOzJySCAshoFLdTmm1J-01Y1nV3I6e7_Ct_QSs [Accessed 21 May 2023].

Teng, Y.-M., Wu, K.-S. and Liu, H.-H. (2013). Integrating Altruism and the Theory of Planned Behavior to Predict Patronage Intention of a Green Hotel. *Journal of Hospitality & Tourism Research*, 39(3), pp.299–315. doi:https://doi.org/10.1177/1096348012471383.

Tuten, T.L. and Solomon, M.R. (2019). *Social media marketing*. 3rd ed. Los Angeles London New Delhi Singapore Washington Dc Melbourne Sage.

Van Selm, M. and Jankowski, N.W. (2006). Conducting Online Surveys. *Quality and Quantity*, [online] 40(3), pp.435–456. doi:https://doi.org/10.1007/s11135-005-8081-8.

Vermeir, I. and Verbeke, W. (2006). Sustainable Food Consumption: Exploring the Consumer 'Attitude – Behavioral Intention' Gap. *Journal of Agricultural and Environmental Ethics*, [online] 19(2), pp.169–194. doi:https://doi.org/10.1007/s10806-005-5485-3.

Worldline (n.d.). *Worldline Sverige | Generation köpbeteende*. [online] Worldline Sverige. Available at: https://www.bambora.com/sv/se/artiklar/hur-paverkar-generation-kunders-kopbeteende/#:~:text=Idag%20har%20vi%20fyra%20olika [Accessed 24 May 2023].

Wright, K.B. (2017). Researching Internet-Based Populations: Advantages and Disadvantages of Online Survey Research, Online Questionnaire Authoring Software Packages, and Web Survey Services. *Journal of Computer-Mediated Communication*, [online] 10(3). doi:https://doi.org/10.1111/j.1083-6101.2005.tb00259.x.

Zollo, L., Carranza, R., Faraoni, M., Díaz, E. and Martín-Consuegra, D. (2021). What influences consumers' intention to purchase organic personal care products? The role of social reassurance. *Journal of Retailing and Consumer Services*, 60, p.102432. doi:https://doi.org/10.1016/j.jretconser.2020.102432.

Appendix 1: The online self-completion questionnaire

Section 1 of 8

Green personal care products

⌄   ⋮

We are two students in the Marketing Program at Linnaeus University, currently writing our bachelor thesis regarding personal care products, also named cosmetics. Which include five main categories; **skincare, haircare, makeup, perfumes** and **hygien products,** for all consumers.

If you usually buy any products in Sweden, within one or more of these categories, we would be very thankful if you wanted to help us.

By filling in the following form you agree to participate in the study. The form takes around 3-5 minutes to fill in and your answers will be anonymous!

Thank you for providing us with valuable input that helps us in the research process.

If you have any questions, please let us know!

Elin Almqvist - ea223wn@student.lnu.se

Tilde Larsson - tl222ze@student.lnu.se

Do you live in Sweden? *

1. Yes

2. No

How old are you?

○ Under 18

○ 18-25

○ 26-30

○ 31-35

○ 36-40

○ 41-45

What is your monthly income?

○ No income

○ Under 11.500 SEK

○ 11.500 - 38.500 SEK

○ Over 38.500 SEK

○ Prefer not to say

Please read following information before filling in the questionnaire:

In this study we are interested in your view of **Green** personal care products. This includes all personal care products such as **hygiene products, perfumes, skincare, hair care and makeup** that are considered **safer for the environment and the people using it** compared to regular cosmetic products.

Green personal care products do not include any toxic or unnatural ingredients and were produced and packaged in a way that has **minimal to no impact on the environment or peoples health.**

Keeping this definition of what a Green cosmetic product is in mind, please answer following questions as truthfully as you can by filling in your answer on a scale of 1-7, whereas:

1=Strongly disagree

7= Strongly agree

The higher the number, the more you agree with the statement presented. Keep in mind that no answer is more or less correct.

I think positively about green personal care products

	1	2	3	4	5	6	7	
Strongly disagree	◯	◯	◯	◯	◯	◯	◯	Strongly agree

I have a positive opinion about green personal care products

	1	2	3	4	5	6	7	
Strongly disagree	◯	◯	◯	◯	◯	◯	◯	Strongly agree

I have a positive feeling towards green personal care products

	1	2	3	4	5	6	7	
Strongly disagree	◯	◯	◯	◯	◯	◯	◯	Strongly agree

I believe it is good for me if I use green personal care products

	1	2	3	4	5	6	7	
Strongly disagree	◯	◯	◯	◯	◯	◯	◯	Strongly agree

I feel there is high pressure from my friends to buy green personal care products

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

I feel there is high pressure from my family to buy green personal care products

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

I feel there is high pressure from other people in my surroundings to buy green personal care products

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

I feel there is high pressure from media that i should buy green personal care products

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

If I would want to buy green personal care products, I know how I could do this?

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

I feel I have enough money to buy green personal care products

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

I feel I have the time to buy green personal care products

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

If I would want to buy green personal care products, I feel I can choose by myself to do this

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

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I want to buy green personal care products

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

I am trying to buy green personal care products

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

My intention is to buy green personal care products

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

I am planning on buying green personal care products

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

Thank you for your participation, have a good day!

Description (optional)
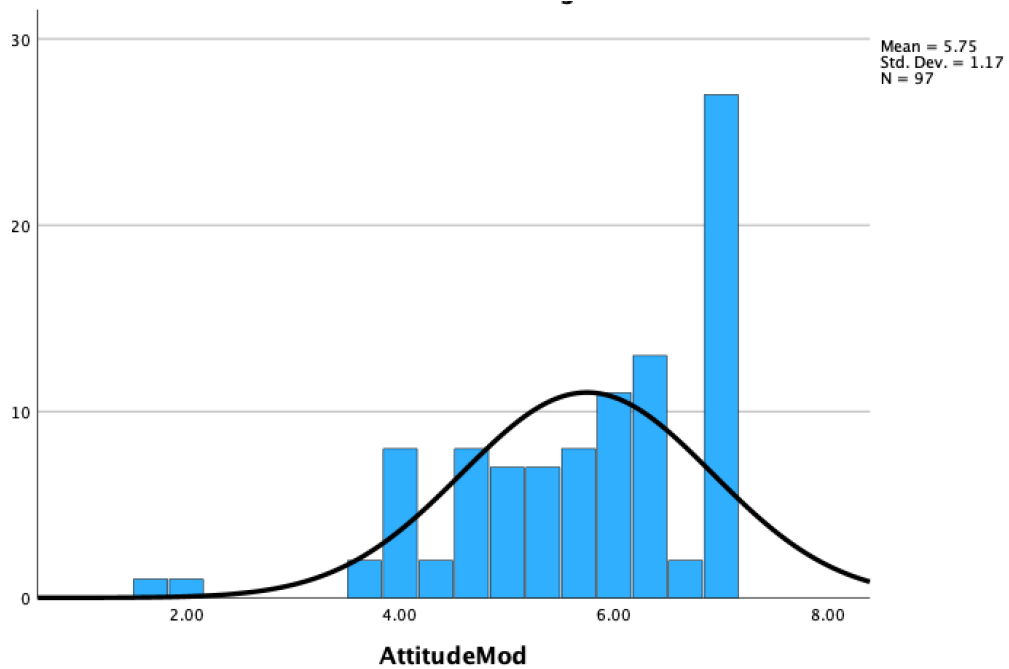
Appendix 2. Descriptive histograms

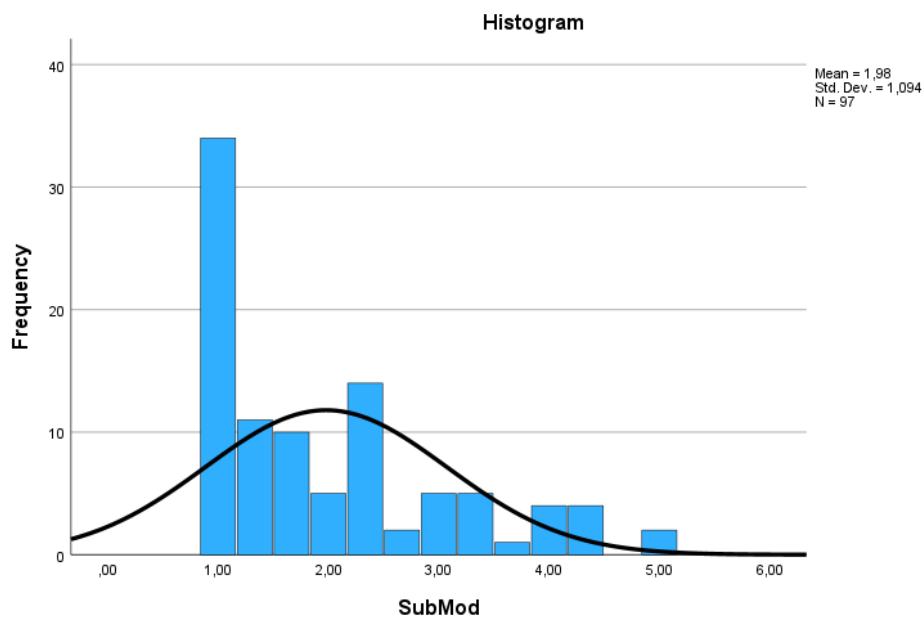*Fig. 1. Descriptive histogram on attitude*

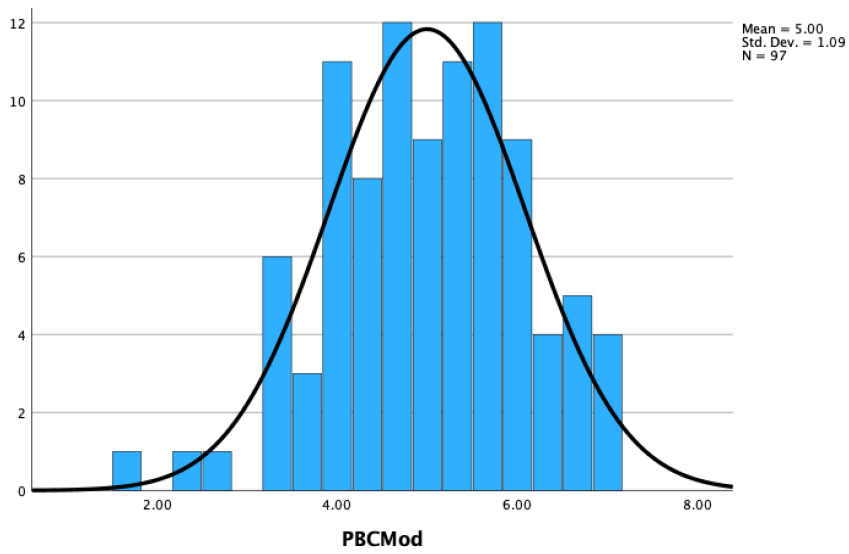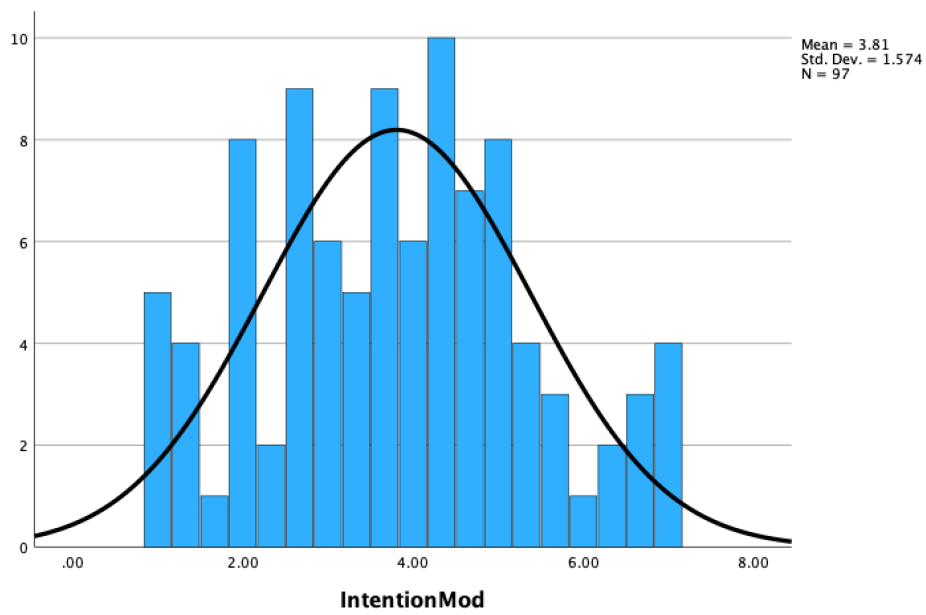*Fig. 2. Descriptive histogram on Subjective Norm*

Fig. 3. Descriptive histogram on Perceived behavioral control

Fig. 4. Descriptive histogram on Intention